



6821 S.W. Archer Road
Gainesville, FL 32608
TEL (904) 371-9451
FAX (904) 378-1500

June 26, 1990
B-2305

Ms. Teresa M. Heron
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399

RE: Alumax Extrusions, Inc.
Permit No. AC-29-170100
Permit No. AC-29-170101
Horizontal and Vertical Paint Lines

Dear Teresa:

Attached please find four copies of the following:

1. MSDS for all paints used during the last 6 months.
2. Pound-VOC/gallon of solids calculation sheets for each paint.
3. Paint usage September 1989 through May 1990.
4. Average of emission points characteristics for modeling.
5. Screen modeling of the vertical and horizontal paint lines.
6. Summary of modeling results.
7. List of paint compounds and their FDER's no-threat level.
8. Calculation of maximum allowable weight percentage of paint compounds for three conditions; vertical line at 12 GPM and 20 GPM, and horizontal line at 12 GPM.

As we discussed in our telephone conversation, I would like to meet with you to discuss these submittals and how to evaluate compliance with the air toxic policy. Our meeting is scheduled for July 2, 1990, at 1:00 p.m.

You will note on the paint usage summary that the majority of the paint sprayed is PC-501 and PC-518. All other paints are used in either small quantities or for one-time runs (i.e., any paint in the PC#100's). Per this application, the vertical line would spray point for 24 hours per day while the horizontal would be limited to 12 hours per day of spraying.

Letter to Ms. Teresa M. Heron
June 26, 1990
Page 2

We would like to establish procedures to evaluate these paints and any new paints for maximum spraying time per the air toxic policy.

Please let me know if you have any questions.

Sincerely,

BAKER ENVIRONMENTAL ENGINEERING, INC.



Robert A. Baker, P.E.
President

RAB:jid

Enclosure

xc: Wes Harrell - Alumax
Tim Kinsley - Alumax

BEE-90.3[WP]RAB6-26



MSD SHEETS

Conforms to U.S.H.S.A. Form 101

PC 1607

ROC

Preparation Date: Jan-89

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 1325 AVENUE
ST. LOUIS, MO. 63125

Emergency Telephone: 314-544-5600

Product Class:
PAINT

Manufacturer's Code Identification:
12-7-575*

Trade Name:
50-55 GLOSS DRDM

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No.	% by Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Carcin.
CELENE FLAMMABLE HAZARD	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm	N/A	
						Vapor Pressure	5.1 mmHG @ 20.0 Deg C	
XOL PETROLEUM DISTILLATES	64742-95-5	10.0	100.00 ppm	N/A	N/A	100.00 ppm	N/A	
						Vapor Pressure	5.0 mmHG @ 27.8 Deg C	
n-BUTYL ALCOHOL FLAMMABLE HAZARD	71-36-3	5.0	50.00 ppm	50.00 ppm	N/A	50.00 ppm	100.00 ppm	
						Vapor Pressure	4.4 mmHG @ 20.0 Deg C	
ETHYL 3-THOXYPROPIONATE	763-69-9	< 5.0	N/A	N/A	100.00 ppm	N/A	N/A	
						Vapor Pressure	1.1 mmHG @ 20.0 Deg C	

Section III - Physical Data

Boiling Range: 242 - 410 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 29.1

Weight per Gallon: 11.44 Lbs

Evaporation Rate: Slower Than Ether

Category: UN1263

95 09 2

Extinguishing Media:

Use National Protection Association (NFPA) Class 2 extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NFPA Class I Liquid Fires.

Special Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode.

Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eye - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Respiratory - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

Best Available Copy

SECTION VI - HEALTH HAZARD AND CONTROL

HAZARDOUS, HARMFUL or IRRITATED, LIQUIDS IRRITATED. MAY CAUSE ALLERGIC REACTIONS.
HAZARDOUS IF ABSORBED THROUGH SKIN. MAY CAUSE IRRITATION OF SKIN AND EYES.
DO NOT USE NEAR HEAT SOURCES AND FLAMES. AVOID SPARKS, CIGARETTES, LIGHTERS, OPEN FLAMES,
ELECTRIC WELDING, CUTTING, OR GRINDING. AVOID CONTACT WITH SKIN, EYES, AND CLOTHING.
If contact is repeated contact with skin, avoid contact with eyes, wash
thoroughly after handling.
Do not use if container is damaged or not in use. In case of spill, wear protective clothing,
respirator and dispose of in accordance with applicable regulations. FIRST AID:
In case of contact (immediately) flush eyes with large amounts of water for at
least 15 minutes, take to a physician for medical treatment. Keep
contaminated clothing and shoes. Wash contaminated clothing prior to reuse -
do not destroy contaminated shoes. For skin contact - wash affected areas with soap
and water. Consult a physician if irritation persists. POISON! If affected by
inhalation of vapor or spray mist remove to fresh air. If swallowed induce
vomiting immediately by giving two glasses of water and sticking finger down
throat. Never give anything by mouth to an unconscious person.
NOTE: Reports have associated repeated and prolonged occupational
overexposure to solvents with permanent brain and nervous system damage.
Intentional misuse by deliberately concentrating and inhaling the contents
may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Compatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product
may form carbon monoxide, carbon dioxide, and various
hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping,
filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing
apparatus. Dike spill area to prevent spreading and pump it
into storage tank. Remaining spill may be absorbed with an
inert absorbent. As an added precaution remove all sources of
ignition.

Spill Disposal Method:

Liquids may be recovered by any EPA approved method. All
sludges and contaminated absorbents must be disposed of in an
EPA approved posted toxic substances landfill.

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Section VIII - Toxicity Precautions

If any of the product is to be transported, it should be adequately packaged and labeled in accordance with applicable regulations. All equipment operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to reduce exposure below TLV.

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid). All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

PC 107 Roc

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINTManufacturer's Code Identification:
12-7-5756Trade Name:
15 GLOSS DROMEDA

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	XBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	C:
XYLENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A	
PETROLEUM DISTILLATES	64742-94-5	5.0	100.00 ppm	N/A	N/A	N/A Vapor Pressure 3.0 mmHG @ 25.0 Deg C	N/A	
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A	
ETHYL beta ETHOXYPROPIONATE	763-69-9	< 5.0	50.00 ppm	N/A	100.00 ppm	N/A Vapor Pressure 1.5 mmHG @ 25.0 Deg C	N/A	
FORMALDEHYDE *	50-00-0	< 1.0	1.00 ppm Peak Exposure 10.00 ppm for 30.00 Minutes	5.00 ppm	2.00 ppm	3.00 ppm	N/A	
TITANIUM DIOXIDE *	13463-67-7	15.0	10.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 410 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 40 %

Weight per Gallon: 11.80 Lbs

Evaporation Rate: Slower Than Ether

Continued on Page: 2

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Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 0.8

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

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Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid)
All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

ROCKFORD COATINGS CORPORATION

PRODUCT DATA SHEET

17-Mar-89

Product Number: 12-7-5784

Customer's Name: ALUMAX

Name of Material: EMBASSY GRAY

Date: 17-Mar-89

Wt./Gal.: 10.29

Viscosity: 67 Seconds #2 Zahn

Reduction: NONE

Volume Solids: 68.7 + or - 2%

Weight Solids: 78.6 + or - 2%

Substrate: ALUM. EXTRUSIONS

Application: SPRAY

Cure: Temperature 400F

Time 4 MIN.

Thickness: Dry Film 1.0 mil.

Wet Film 1.5 mil.

Pencil Hardness: 2H

Gloss: 50-55 % at 60 Degrees

Flexibility:

V.O.C.: 2.2 Pounds per Gal.

Remarks:

INFORMATION CONTAINED HEREIN IS, TO OUR BEST KNOWLEDGE, TRUE AND ACCURATE, BUT ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE. SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL THE ROCKFORD COATINGS CORPORATION DISCLAIMS ANY LIABILITY INCURRED IN CONNECTION WITH THE USE OF OUR PRODUCTS AND INFORMATION CONTAINED HEREIN. NO PERSON IS AUTHORIZED TO MAKE ANY STATEMENT OR RECOMMENDATION NOT CONTAINED HEREIN, AND ANY SUCH STATEMENT OR RECOMMENDATION SO MADE SHALL NOT BIND THE CORPORATION. FURTHERMORE, NOTHING CONTAINED HEREIN SHALL BE CONSTRUED AS A RECOMMENDATION TO USE ANY PRODUCT IN CONFLICT WITH EXISTING PATENTS COVERING ANY MATERIAL OR ITS USE AND NO LICENSE IMPLIED OR IN FACT IS GRANTED HEREIN UNDER THE CLAIMS OF ANY PATENTS.

(Conforms to D.G.H.A. Form 201)

114 ROC

Date of Preparation: 17-Mar-89

Best Available Copy

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-7-5764

Trade Name:
EMBASSY GRAY

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	Qty. Weight	TWA	TWA Ceiling	STEL	PEL		Carc
						PEL Ceiling		
XYLENE FLAMMABLE HAZARD	1330-20-7	5.0	100.00 PPB	N/A	150.00 PPB	100.00 PPB	N/A	
						Vapor Pressure	21.0 mmHg @ 37.8	Des. C
FENOL	25285-77-4	5.0	N/A	N/A	N/A	N/A	N/A	
						Vapor Pressure	1.0 mmHg @ 87.0	Des. C
BENZENE FLAMMABLE HAZARD	100-41-4	5.0	100.00 PPB	N/A	125.00 PPB	N/A	N/A	
						Vapor Pressure	10.0 mmHg @ 26.0	Des. C
T-BUTYL ALCOHOL FLAMMABLE HAZARD	71-36-3	10.0	N/A	50.00 PPB	N/A	N/A	100.00 PPB	
						Vapor Pressure	4.4 mmHg @ 20.0	Des. C
ALUMINUM	7429-90-5	5.0	10.00 mg/cu.m	N/A	N/A	N/A	N/A	

Section III - Physical Data

Boiling Range: 243 - 284 Des. F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 31 %

Weight per Gallon: 10.29 lbs

Evaporation Rate: Slower Than Ether

Continued on Page: 2

UN Category: UN1263

Best Available Copy

Flash Point: 80 Deg F

F 1.0

Extinguishing Media:

Use National Protection Association (NFPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NFPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point; overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure demand mode. Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

HARMFUL. CAUSES EYE BURNS. CAUSES IRRITATION. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED.

Keep away from heat, sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact (eyes) flush immediately with large amounts of water for at least 15 minutes. Take to a physician for medical treatment. In case of contact with skin wash affected areas with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration - preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweepings, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent. Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Best Available Copy**Respiratory Protection:**

IF TLV of the product or any component is exceeded, a NIOSH/MSHA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (Vapor, liquid and/or solid). All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance or need that the information is currently applicable and suitable to their circumstances.

M A T E R I A L S A F E T Y D A T A S H E E T

PC114

(Conforms to O.S.H.A. Form 20)

114 Roc

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-7-5764

Trade Name:
EMBASSY GRAY

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	%By Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	C
XYLENE *	1330-20-7	5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm	N/A	
						Vapor Pressure 21.0 mmHG @ 37.8 Deg C		
ETHYL BENZENE * FLAMMABLE HAZARD	100-41-4	< 5.0	100.00 ppm	N/A	125.00 ppm	100.00 ppm	N/A	
						Vapor Pressure 10.0 mmHG @ 26.0 Deg C		
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	10.0	N/A	50.00 ppm	N/A	50.00 ppm	N/A	
						Vapor Pressure 4.4 mmHG @ 20.0 Deg C		
TITANIUM DIOXIDE*	13463-67-7	10.0	10.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	
ALUMINUM *	7429-90-3	< 5.0	15.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 284 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 31 %

Weight per Gallon: 10.28 Lbs

Vaporization Rate: Slower Than Ether

Continued on Page: 2

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 1.0

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facemask operated in a pressure-demand mode.
Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.
Skin - Prolonged or repeated contact can cause moderate irritation.
Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.
Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

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Waste Disposal Method:

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Section VIII - Special Protection Information

Respiratory Protection:

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Ventilation:

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Protective Gloves:

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Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

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MATERIAL SAFETY DATA SHEET

PC 117 Prem

264W-1000
 PRODUCT NAME: 25W 1000-PC 117 CLOVERSWEEP
 PRODUCT CODE: 264 1000

HMS CODES: H F R P
 2 3 1 6

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: KEMPEN PAINT COMPANY **PREMIERE INDUSTRIAL COATINGS**
 ADDRESS: P.O. BOX 290100, ST. LOUIS, MISSOURI 63129
 EMERGENCY PHONE: 314-845-0740 INFORMATION PHONE: 314-845-0740
 DATE REVISED: 05-25-89 NAME OF PREPARER: M. MEYER
 REASON REVISED: SARA III, SECTION 313 REPORTING INFORMATION ADDED

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ 100F	WEIGHT PERCENT
		OSHA PEL	ACGIH TLV	IDLH		
12004 N-BUTYL ALCOHOL	71-36-3	100 ppm	50 ppm	5000 ppm	4.4 68F	3.74
12042-XYLOL	2 1330-20-7	100 ppm	100 ppm	1000 ppm	3.2 68F	2.02
2011 MEDIUM AROMATIC NAPHTHA 150 FLASH	64742-94-5	H314	50 ppm	NA	0.1 100F	10
2041-XLAP NAPHTHA	64742-83-3	200 ppm	200 ppm	NA	12.0 68F	0.54
2006-ETHYLENEGLYCOL-N-BUTYL ETHER	111-76-2	SKIN 25	25 ppm	NA	0.6 68F	0.23
6428 FORMALDEHYDE	50-00-0	1 ppm	1 ppm	CA	N/A	0.02
2011 BR AROMATIC HYDROCARBON 150 FLASH INTER.	64741-53-5		50 ppm		0.1 100F	3.02
2061 NAPHTHALENE	91-20-3	10 ppm	50 mg/m3	500 ppm	0.1 68F	0.54
2017-ETHYL ALCOHOL	64-17-5	1000 ppm	1000 ppm	NA	68.5 68F	0.21
4025 PAINT ADDITIVE		TLV 200 pp	SKIN		N/A	0.54

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 206 F SPECIFIC GRAVITY (H20=1): 1.5
 VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
 COATING V.O.C.: 2.54 LB/GL (304 G/L)
 MATERIAL V.O.C.: 2.54 LB/GL (304 G/L)
 SOLUBILITY IN WATER: INSOLUBLE
 APPEARANCE AND ODOR: WHITE LIQUID. SLIGHT AROMATIC SOLVENT ODOR

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 80 F METHOD USED: TCC
 FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 0.1% UPPER: 73.0%

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIREFIGHTING PROCEDURES

Full protective equipment, including self-contained breathing apparatus should be used. Water spray may be ineffective if water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapors may cause flash fire. Keep containers tightly closed and isolate from heat, electrical equipment, sparks and flames. Never use welding or cutting torch on or near drum - even empty - because product-residue can ignite explosively. If applied in confined area use only explosion proof and properly grounded equipment. Use sparkproof shoes and tools.

SECTION V - REACTIVITY DATA

**STABILITY: STABLE
CONDITIONS TO AVOID**

High temperatures. Shock free dropping.

INCOMPATIBILITY (MATERIALS TO AVOID)

None reasonably foreseeable.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

May produce fumes, smoke and toxic vapors when heated to decomposition.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Overexposure can cause irritation to the upper respiratory tract, may cause nausea, headache, fatigue, loss of appetite.

High concentrations can cause collapse, bronchitis, pneumonia, convulsions.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN: Can cause irritation. Can cause defatting of skin, which can lead to dermatitis.

EYE: Liquid and vapor can be irritating to eyes. Symptoms are tearing, redness and discomfort.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

This product is not easily absorbed.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Toxic if swallowed. Will cause vomiting, nausea, diarrhea.

High concentrations: Collapse, pneumonia and convulsions.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Breathing difficulties, dizziness, loss of coordination and headache are signs of exposure to concentrations above the TLV.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CARCINOGENICITY: NTP? YES IARC MONOGRAPHS? YES OSHA REGULATED? YES

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Pre-existing eye, skin or respiratory weakness or disease. Allergies.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air, restore breathing. Treat symptomatically and consult physician. **EYES (SPASH):** Flush immediately with large amounts of water for at least 15 minutes. Take to physician for medical treatment. **SKIN (SPASH):** Wash affected areas with soap and water. Remove contaminated clothing. **INGESTION:** Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center immediately. Treat symptomatically.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain spill. Eliminate ignition sources. Maintain proper ventilation. Use non-sparking tools, avoid breathing vapors.

WASTE DISPOSAL METHOD

Dispose of in water-tight containers according to federal, state and local regulations.
Do not reuse container.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep closure tight and containers upright to prevent leakage. Store out of sun away from sparks, flame and ignition sources. Drums of this material should be grounded when pouring. Prevent prolonged or repeated breathing of vapor or spray mist. STORE IN A COOL DRY PLACE.

OTHER PRECAUTIONS

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
TARGET ORGAN INFORMATION: Central nervous system, brain, liver and kidneys may be affected by exposure to solvents. Do not cut, puncture or weld on or near empty containers. If spraying this material, keep spraybooths clean, avoid build up of spray dust or overspray in booths or ducts. FOR INDUSTRIAL USE ONLY

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION

Do not breathe vapors or spray mist. Use an appropriate, properly fitted respirator (NIOSH/MSHA APPROVED) during application and other use of this material until vapors or mists are exhausted. Use approved chemical/mechanical filters designed to remove a combination of particles and vapors.

VENTILATION

General mechanical ventilation supplemented with local exhaust may be sufficient to keep vapor concentrations below TLV. Heavy solvent vapors should be removed from lower levels of area, all ignition sources should be eliminated.

PROTECTIVE GLOVES

Use chemical handling impermeable gloves to prevent skin contact.

EYE PROTECTION

Use chemical safety goggles, glasses or faceshield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Protective outerwear required to protect against clothing contamination and skin contact.

WORK/HYGIENIC PRACTICES

Eye washes and safety showers are recommended. Wash hands before eating or smoking.

SECTION IX - DISCLAIMER

DISCLAIMER

This information is believed to be accurate. No guarantee of its accuracy is made, no warranty, expressed or implied, including warranty of merchantability and fitness for use of this material is made.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: PC 118 COLONIAL GREY HI SOLIDS HMIS CODES: H F R P
 PRODUCT CODE: 26A 1003 2 3 1 8

PC 118
 Prem

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: KEMPEN PAINT COMPANY
 ADDRESS: P.O. BOX 290100, ST. LOUIS, MISSOURI 63129
 EMERGENCY PHONE: 314-845-0740 INFORMATION PHONE: 314-845-0740
 DATE REVISED: 02-12-90 NAME OF PREPARER: M. MEYER

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS INGREDIENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ 25°C	WEIGHT PERCENT
		OSHA PEL	ACGIH TLV	IDLH		
63004 N-BUTYL ALCOHOL	71-26-3	100 ppm	50 ppm	8000 ppm	4.4 58F	5.92
6042-XYLENE	2 1330-20-7	100 ppm	100 ppm	1000 ppm	2.5 58F	3.19
2011 MEDIUM AROMATIC NAPHTHA 150 FLASH	64742-94-5	N/A	50 ppm	N/A	6.1 100F	20
2041-XYLENE NAPHTHA	64742-89-6	300 ppm	300 ppm	N/A	13.0 58F	0.24
2006-ETHYLENEGLYCOL-N-BUTYL ETHER	111-76-2	SKIN 25	25 ppm	N/A	0.6 58F	0.33
4128 FORMALDEHYDE	50-00-0	1 ppm	1 ppm	OR	N/A	0.03
2011 B2 AROMATIC HYDROCARBON 150 FLASH INTER.	64742-58-6		50 ppm		0.1 100F	4.79
2051 NAPHTHALENE	91-20-3	10 ppm	50 mg/m ³	300 ppm	0.1 58F	0.54
2017-ETHYL ALCOHOL	64-17-5	1000 ppm	1000 ppm	N/A	58.5 58F	0.33
4025 PAINT ADDITIVE			TLV 200 pp = SKIN		N/A	0.54

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 205 F SPECIFIC GRAVITY (H₂O=1): 1.18734^{29.11}
 VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
 COATING V.O.C.: 2.96 LB/GL (354 G/L)
 MATERIAL V.O.C.: 2.96 LB/GL (354 G/L)
 SOLUBILITY IN WATER: INSOLUBLE
 APPEARANCE AND ODOR: GREY LIQUID SLIGHT AROMATIC SOLVENT ODOR

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 73 F METHOD USED: TCC
 FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 0.1% UPPER: 73.0%

EXTINGUISHING MEDIA: FOAM, CO₂, DRY CHEMICAL, WATER FOG

SPECIAL FIREFIGHTING PROCEDURES

Full protective equipment, including self-contained breathing apparatus should be used. Water spray may be ineffective if water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapors may cause flash fire. Keep containers tightly closed and isolate from heat, electrical equipment, sparks and flame. Never use welding or cutting torch on or near drum—even empty—because product—even residue can ignite explosively. If applied in confined area use only explosion proof and properly grounded equipment. Use sparkproof shoes and tools.

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MATERIAL SAFETY DATA SHEET

PAGE 2 OF 3

SECTION V - REACTIVITY DATA

STABILITY: STABLE**CONDITIONS TO AVOID**

High temperatures. Shock from dropping.

INCOMPATIBILITY (MATERIALS TO AVOID)

None reasonably foreseeable.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

May produce fumes, smoke and toxic vapors when heated to decomposition.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Overexposure can cause irritation to the upper respiratory tract, may cause nausea, headache, fatigue, loss of appetite. High concentrations can cause collapse, bronchitis, pneumonia, convulsions.

SKIN AND EYE (CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE)**SKIN:** Can cause irritation. Can cause defatting of skin, which can lead to dermatitis.**EYE:** Liquid and vapor can be irritating to eyes. Symptoms are tearing, redness and discomfort.**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

This product is not easily absorbed.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Toxic if swallowed. Will cause vomiting, nausea, diarrhea.

High concentrations: Collapse, pneumonia and convulsions.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Breathing difficulties, dizziness, loss of coordination and headache are signs of exposure to concentrations above the TLV.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional abuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CARCINOGENICITY: NTP? YES IARC MONOGRAPHS? YES OSHA REGULATED? YES**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

Pre-existing eye, skin or respiratory weakness or disease. Allergies.

EMERGENCY AND FIRST AID PROCEDURES**INHALATION:** Remove to fresh air, restore breathing. Treat symptomatically and consult physician. **EYES (SPLOSH):** Flush immediately with large amounts of water for at least 15 minutes. Take to physician for medical treatment. **SKIN (SPLOSH):** Wash affected areas with soap and water. Remove contaminated clothing. **INGESTION:** Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center immediately. Treat symptomatically.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate spark sources, flames and hot surfaces. Use non-sparking tools. Supply adequate ventilation. Avoid breathing vapors, use respirators. Contain and remove with inert absorbent.

WASTE DISPOSAL METHOD

Absorb spilled material and remove to proper containers. Dispose of in accordance with Federal, State and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep closure tight and container upright to prevent leakage. Store drum out of sun and away from heat. Do not store or use near heat, sparks or flames. Drums of this material should be grounded when pouring. Prevent prolonged or repeated breathing of vapor or spray mist. Do not weld or flame cut an empty drum.

OTHER PRECAUTIONS

HEALTH HAZARD INFORMATION: Central nervous system, brain, kidneys and liver may be affected by solvent exposure.

Empty containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks and flames. Do not cut, puncture or weld on or near empty containers.

If spraying this material, keep spray booths clean. Avoid buildup of spray dust or overspray in booths or ducts.

FOR INDUSTRIAL USE ONLY

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION

Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/OSHA APPROVED) during application and other use of this material until vapors and mists are exhausted. Use approved chemical/mechanical filters designed to remove a combination of particles and vapors.

VENTILATION

General mechanical ventilation supplemented with local exhaust may be sufficient to keep vapor concentrations below TLV. Heavy solvent vapors should be removed from lower levels of area, all ignition sources should be eliminated.

PROTECTIVE GLOVES

Use chemical handling impervious gloves to prevent skin contact.

EYE PROTECTION

Use chemical safety goggles, glasses or faceshield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Impervious aprons, protective clothing.

WORK/HYGIENIC PRACTICES

Eye washes and safety showers are recommended. Wash hands after using and before eating or smoking.

SECTION IX - DISCLAIMER

DISCLAIMER

This information is believed to be accurate. No guarantee of its accuracy is made, no warranty expressed or implied including warranty of merchantability and fitness for use of this material is made.

BEST AVAILABLE COPY
MATERIAL SAFETY DATA SHEET

PC 119

21004

Prem

PRODUCT NAME: PC 119 BROOKS SILVER HS POLY
PRODUCT CODE: 25A 1003

HMS CODES: H F R P
2 3 1 6

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: KEMPEN PAINT COMPANY
ADDRESS: P.O. BOX 290100, ST. LOUIS, MISSOURI 63129
EMERGENCY PHONE: 314-845-0740 INFORMATION PHONE: 314-845-0740
DATE REVISED : 03-29-90 NAME OF PREPARER : M. MEYER
REASON REVISED : SARA TITLE III, SECTION 313 REPORTING INFORMATION ADDED

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE = No @ 70F	WEIGHT PERCENT
		OSHA PEL	ACGIH TLV	IDLH		
12004 N-BUTYL ALCOHOL	71-36-3	100 ppm	50 ppm	5000 ppm	4.4 68F	7.75
12042-XYLENE	2 1320-20-7	100 ppm	100 ppm	1000 ppm	2.5 68F	12.65
2005-ETHYLENE GLYCOL-BUTYL ETHER	111-75-2	SKIN 25	25 ppm	NA	0.6 68F	0.49
4026 PAINT ADDITIVE	205XIM 599	10. TLV 100p	10		2.6 68F	< 0.5%
2011 MEDIAN AROMATIC NAPHTHA 150 FLASH	64742-34-5	MSDS	50 ppm	NA	0.1 100F	< 5.0%
6428 FORMALDEHYDE	50-00-0	1 ppm	1 ppm	CA	N/A	0.04
4025 PAINT ADDITIVE		TLV 200 pp	2 SKIN		N/A	< 5.0%
2031-MINERAL SPIRITS 66	64742-83-7	200 ppm	100 ppm	NA	2.5 68F	< 5.0%
2039-TOLUOL	108-93-3	200 ppm	100 ppm	2000 ppm	28.0 68F	0.20
2002 MEDIAN AROMATIC NAPHTHA 100 FLASH	64741-25-6	MSDS	50 ppm	NA	1.0 68F	< 0.5%

64741-98-6

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 206 F SPECIFIC GRAVITY (H2O=1): 1.1
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
COATING V.O.C.: 2.65 LB/GL (341 G/L)
MATERIAL V.O.C.: 2.65 LB/GL (341 G/L)
SOLUBILITY IN WATER: INSOLUBLE
APPEARANCE AND ODOR: BROWN LIQUID. SLIGHT AROMATIC SOLVENT ODOR

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 60 F METHOD USED: TCC
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 0.7% UPPER: 73.0%

EXTINGUISHING MEDIA: , CO2, DRY CHEMICAL

SPECIAL FIREFIGHTING PROCEDURES

Isolated fire extinguishing agents should not be used. Firefighters should be equipped with NIOSH approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Can react to fire aluminum oxide, aluminum nitride and partial or complete combustion products of solvents are formed
Use approved CLASS B fire extinguisher.
NEVER USE WATER.

SECTION V - REACTIVITY DATA

STABILITY: UNSTABLE**CONDITIONS TO AVOID**

Addition of water will generate hydrogen and heat by reaction with aluminum pigment.

INCOMPATIBILITY (MATERIALS TO AVOID)

WATER, HALOGENATED HYDROCARBONS, AND STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Soots, carbon monoxide, carbon dioxide and aluminum oxide.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Solvent vapor concentrations are irritating to the respiratory tract and may cause dizziness and headaches, are anesthetic and may have other central nervous system effects.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN: Repeated exposure to solvents may cause irritation and drying and possibly dermatitis.

EYES: Irritation and drying.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Not readily absorbed.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Toxic if swallowed. Will cause vomiting, nausea, diarrhea.

High concentrations: Collapse, pneumonia and convulsions.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Smothering difficulties, dizziness, loss of coordination and headache are signs of exposure to concentrations above the TLV.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CARCINOGENICITY: NTP? YES IARC MONOGRAPHS? YES OSHA REGULATED? YES

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Preexisting eye, skin or respiratory weakness or disease. Allergies.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air, restore breathing. Treat symptomatically and consult physician. **EYES(Splash):** Flush with plenty of running water for 15 minutes. Take to physician for medical treatment. **SKIN(Splash):** Wash affected area with soap and water. Remove contaminated clothing. **INGESTION:** Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center immediately. Treat symptomatically.

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MATERIAL SAFETY DATA SHEET

PAGE 3 OF 3

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate spark sources, flames and hot surfaces. Use non-sparking tools. Supply adequate ventilation. Avoid breathing vapors, use respirators. Contain and remove with inert absorbent.

WASTE DISPOSAL METHOD

Absorb spilled material and remove to proper containers. Dispose of in accordance with Federal, State and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep closure tight and container upright to prevent leakage. Store away from sun and away from heat. Do not store or use near heat, sparks or flames. Drums of this material should be grounded when pouring. Prevent prolonged or repeated breathing of vapor or spray mist. Do not weld or flame cut an empty drum.

OTHER PRECAUTIONS

TARGET ORGAN INFORMATION: Central nervous system, brain, kidneys and liver may be affected by solvent exposure.

Empty containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks and flames. Do not cut, puncture or weld on or near empty containers.

If spraying this material, keep spray booths clean. Avoid buildup of spray dust or overspray in booths or ducts.

FOR INDUSTRIAL USE ONLY

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION

Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA APPROVED) during application and other use of this material until vapors and mists are exhausted. Use approved chemical/mechanical filters designed to remove a combination of particles and vapors.

VENTILATION

General mechanical ventilation supplemented with local exhaust may be sufficient to keep vapor concentrations below TLV. Heavy solvent vapors should be removed from lower levels of area, all ignition sources should be eliminated.

PROTECTIVE GLOVES

Use chemical handling impermeable gloves to prevent skin contact.

EYE PROTECTION

Use chemical safety goggles, glasses or faceshield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Impermeable aprons, protective clothing.

WORK/HYGIENIC PRACTICES

Eye washes and safety showers are recommended. Wash hands after using and before eating or smoking.

SECTION IX - DISCLAIMER

DISCLAIMER

This information is believed to be accurate. No guarantee of its accuracy is made, no warranty expressed or implied including warranty of merchantability and fitness for use of this material is made.

264407

MATERIAL SAFETY DATA SHEET

501 Prem 1

PRODUCT NAME: 26N 1000 PC 501 BRONZE HI SOL HMIS CODES: H F R P
PRODUCT CODE: 26N 1000 2 3 1 G

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: PREMIERE INDUSTRIAL COATINGS, INC.
ADDRESS: P.O. BOX 290100, St. LOUIS, MISSOURI 63129
EMERGENCY PHONE: 314-845-0740 INFORMATION PHONE: 314-845-0740
DATE PREPARED : 05-25-89 NAME OF PREPARER : M. MEYER
REASON REVISED : SARA TITLE III, SECTION 313 REPORTING INFORMATION ADDED

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
		OSHA PEL	ACGIH TLV	IDLH		
2004 N-BUTYL ALCOHOL	71-36-3	100 ppm	50 ppm	8000 ppm	4.4 68F	8.56
2042=XYLOL	1330-20-7	100 ppm	100 ppm	1000 ppm	9.5 68F	12.37
4095= ORGANO-METALLIC SALT - PAINT ADDITIVE		TLV .1/mg /Cu. M.			N/A	< 5.0%
2006=ETHYLENEGLYCOLn-BUTYL ETHER	111-76-2	SKIN 25	25 ppm	NA	0.6 68F	0.38
2017=ETHYL ALCOHOL	64-17-5	1000 ppm	1000 ppm	NA	68.5 68F	0.27

NG

No Water

Section 313 Supplier Notification
This product contains the above highlighted toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 49 CFR 372

65.48% Solids

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 206 F
VAPOR DENSITY: HEAVIER THAN AIR
V.O.C.: 2.48 LB/GL (297 GR/LT)
SOLUBILITY IN WATER: INSOLUABLE
APPEARANCE AND ODOR: BROWN LIQUID. SLIGHT AROMATIC SOLVENT ODOR
SPECIFIC GRAVITY (H2O=1): 1.2 x 8.34 =
EVAPORATION RATE: SLOWER THAN ETHER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 80 F METHOD USED: TCC
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.0% UPPER: 19.0%

EXTINGUISHING MEDIA: , CO2, DRY CHEMICAL

SPECIAL FIREFIGHTING PROCEDURES
Halogenated fire extinguishing agents should not be used. Firefighters should be equipped with NIOSH approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS
When exposed to fire aluminum oxide, aluminum nitride and partial or complete combustion products of solvents are formed
Use approved CLASS D fire extinguisher.
NEVER USE WATER.

===== SECTION V - REACTIVITY DATA =====

**STABILITY: UNSTABLE
CONDITIONS TO AVOID**

Addition of water will generate hydrogen and heat by reaction with aluminum pigment.

INCOMPATIBILITY (MATERIALS TO AVOID)

WATER, HALOGENATED HYDROCARBONS, AND STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Smoke, carbon monoxide, carbon dioxide and aluminum oxide.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Solvent vapor concentrations are irritating to the respiratory tract and may cause dizziness and headaches, are anesthetic and may have other central nervous system effects.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN: Repeated exposure to solvents may cause irritation and drying and possibly dermatitis.

EYES: Irritation and drying.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Not readily absorbed.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Toxic if swallowed. Will cause vomiting, nausea, diarrhea.

High concentrations: Collapse, pneumonia and convulsions.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Breathing difficulties, dizziness, loss of coordination and headache are signs of exposure to concentrations above the TLV.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? YES

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Preexisting eye, skin or respiratory weakness or disease. Allergies.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air, restore breathing. Treat symptomatically and consult physician. EYES(Splash): Flush with plenty of running water for 15 minutes. Take to physician for medical treatment. SKIN(Splash): Wash affected area with soap and water. Remove contaminated clothing. INGESTION: Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center immediately. Treat symptomatically.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain spill. Eliminate ignition sources. Maintain proper ventilation. Use non-sparking tools, avoid breathing vapors.

WASTE DISPOSAL METHOD

Dispose of in water-tight containers according to federal, state and local regulations.

Do not reuse container.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep closure tight and containers upright to prevent leakage. Store out of sun away from sparks, flame and ignition sources. Drums of this materials should be grounded when pouring. Prevent prolonged or repeated breathing of vapor or spray mist. STORE IN A COOL DRY PLACE.

OTHER PRECAUTIONS

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

TARGET ORGAN INFORMATION: Central nervous system, brain, liver and kidneys may be affected by exposure to solvents.

Do not cut, puncture or weld on or near empty containers. If spraying this material, keep spraybooths clean, avoid build up of spray dust or overspray in booths or ducts. FOR INDUSTRIAL USE ONLY

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

Do not breathe vapors or spray mist. Use an appropriate, properly fitted respirator (NIOSH/MSHA APPROVED) during application and other use of this material until vapors or mists are exhausted. Use approved chemical/mechanical filters designed to remove a combination of particles and vapors.

VENTILATION

General mechanical ventilation supplemented with local exhaust may be sufficient to keep vapor concentrations below TLV. Heavy solvent vapors should be removed from lower levels of area, all ignition sources should be eliminated.

PROTECTIVE GLOVES

Use chemical handling impermeable gloves to prevent skin contact.

EYE PROTECTION

Use chemical safety goggles, glasses or faceshield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Protective outerwear required to protect against clothing contamination and skin contact.

WORK/HYGIENIC PRACTICES

Eye washes and safety showers are recommended. Wash hands before eating or smoking.

===== SECTION IX - DISCLAIMER =====

DISCLAIMER

This information is believed to be accurate. No guarantee of its accuracy is made, no warranty, expressed or implied, including warranty of merchantability and fitness for use of this material is made.

Date of PREP: 05/29/85

(Similar to Form OSHA-20)

SECTION I

Manufacturer's Name: PPG Industries, Inc. Coatings & Resins Division

Address: P.O. BOX 9 Allison Park, Pa 15101

Attn: Manager, Industrial Hygiene and Product Safety

Emergency Telephone: (304) 843-1300

Product Class: POLYESTER/MELAMINE

Manufacturer's Code: UC57204

Trade Name: PC 501 BRONZE - POLYCRON III

(041585E)

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	% WEIGHT	*TLV(1984)	**PPG IPEL	CASNO	LEL	V.P.
AROMATIC HYDROCARBON	10	100.00 PPM	.	N.E.	0.9	1
AROMATIC HYDROCARBON	5	100.00 PPM	.	N.E.	1.0	3
DIETHYLENE GLYCOL MONOBUTYL ETHER	< 5	.NE	.	112-34-5	0.9	.02
NORMAL BUTYL ALCOHOL	< 5	50.00 PPM	.	71-36-3	1.7	5.5
ETHYL ALCOHOL	< 5	1000.00 PPM	.	64-17-5	3.3	14
XYLENE	< 5	100.00 PPM	.	1330-20-7	4.1	6.3
EPOXY RESIN	< 5	.NE	.	N.E.	N/A	N/A
MINERAL SPIRITS-RULE 66	< 5	.NE	.	8032-32-4	1.0	2
2,2,4TRIMETHYLPENTANEDIOL, 3MONOISOBUTYRATE	< 5	.NE	.	25265-77-4	0.6	U/I
1-METHOXY-2-PROPANOL	< .5	100.00 PPM	.	107-98-2	2.4	8
ISOPROPYL ALCOHOL, ANHYDROUS	< .5	400.00 PPM.	.	67-63-0	2.0	33

SECTION III - PHYSICAL DATA

Boiling Range: 77-244 DEG.C.

Vapor Density - HEAVIER THAN AIR

Evaporation Rate = SLOWER THAN ETHER

% Volatile/Vol: 41.28 Wt/Gal: 9.04

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT Category: FLAMMABLE

Flashpoint: 64 DEG.F. PHCC

LEL: 2.0

Extinguishing Media:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B

EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NFPA CLASS 1B FLAMMABLE LIQUID FIRES.

Unusual Fire & Explosion Hazards:

KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON HOT SURFACES.

Special Fire Fighting Procedures:

WATER SPRAY MAY BE INEFFECTIVE. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value: SEE SEC. II

Effects of Overexposure:

INHALATION: ANESTHETIC. IRRITATION OF THE RESPIRATORY TRACT OR ACUTE NERVOUS SYSTEM DEPRESSION CHARACTERIZED BY THE FOLLOWING PROGRESSIVE STEPS: HEADACHE, DIZZINESS, STAGGERING GAIT, CONFUSION, UNCONSCIOUSNESS, OR COMA.

SKIN OR EYE CONTACT: PRIMARY IRRITATION. MAY SENSITIZE SKIN.

Emergency and First Aid Procedures:

FUMES: REMOVE FROM EXPOSURE. RESTORE BREATHING. KEEP WARM AND QUIET. NOTIFY A PHYSICIAN. SPLASH (EYES): FLUSH IMMEDIATELY WITH COPIOUS QUANTITIES OF RUNNING WATER FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR DEFINITIVE MEDICAL TREATMENT. SPLASH (SKIN): WASH AFFECTED AREAS WITH WATER. REMOVE CONTAMINATED CLOTHING. CONSULT A PHYSICIAN.

SECTION VI - REACTIVITY DATA

Stability: STABLE Conditions to Avoid: UNKNOWN

Incompatibility (Materials to Avoid): UNKNOWN

Continued on Page 2

NOTE: * = Threshold Limit Value established by American Conference of Governmental Industrial Hygienists

no lbs voc / gal coatings

ous Decomposition Products: May produce hazardous fumes when heated to decomposition as in welding.
 may contain: Carbon Monoxide, Oxides of Nitrogen
 dous Polymerization - WILL NOT OCCUR

nditions to Avoid: UNKNOWN

SECTION VII - SPILL OR LEAK PROCEDURES *****

Steps to be Taken in Case Material is Released or Spilled:

REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES, AND ELECTRICAL, STATIC, OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS. VENTILATE AREA. REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS.

Waste Disposal Method: DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection:

OUTDOOR/OPEN AREAS: USE FILTER TYPE RESPIRATORS (NIOSH/MSHA TC21C) TO REMOVE SOLID AIRBORNE PARTICULATES FROM OVERSPRAY. RESTRICTED VENTILATION AREAS: USE COMBINATION ORGANIC VAPOR-FILTER TYPE RESPIRATORS (NIOSH/MSHA TC23C) DESIGNED TO PURIFY THE AIR BY REMOVING SOLID AIRBORNE PARTICULATES AND ORGANIC VAPORS. CONFINED AREAS: USE SUPPLIED AIR RESPIRATORS OR HOODS (NIOSH/MSHA TC19C). IN ALL CASES, PLEASE READ MANUFACTURER'S INSTRUCTIONS CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE, AND HOW IT IS TO BE PROPERLY FITTED.

Ventilation:-----> PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF HAZARDOUS INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

Protective Gloves:----> REQUIRED FOR PROLONGED OR REPEATED CONTACT.

Eye Protection:-----> USE SAFETY EYEWEAR DESIGNED TO PROTECT AGAINST SPLASH OF LIQUID.

Other Protective Equipment:

PREVENT PROLONGED SKIN CONTACT TO CONTAMINATED CLOTHING.

SECTION IX - SPECIAL PRECAUTIONS *****

Precautions to be Taken in Handling and Storing:

DO NOT STORE ABOVE 120 F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NFPA CLASS IB FLAMMABLE LIQUIDS.

Other Precautions:----> DO NOT TAKE INTERNALLY. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUID IN EXCESS OF A FEW INCHES. DO NOT FLAME CUT, BRAZE OR WELD WITHOUT NIOSH APPROVED RESPIRATORS OR APPROPRIATE VENTILATION.

OVENS MUST OPERATE PROPERLY, BE VENTED.

② # 73
501 RAC (E)

MATERIAL SAFETY DATA SHEET

(CONFORMS TO O.S.H.A. FORM 20)

DATE OF PREPARATION 24-Feb-88

PAGE 1

SECTION I

MANUFACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H
ST. LOUIS, MO. 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS:

MANUFACTURER'S CODE IDENTIFICATION:

2

12-7-5343

TRADE NAME:

P.C. 501-RC

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO	%BY WEIGHT	TLV PPM	PEL	VAPOR PRESS. MMHG @ DEG C
YLENE	1330-20-7	15.0	100	100	5.1 @ 20.0
-3-PENTANEDIOL	25265-77-4<	5.0	0	***	1.0 @ 87.0
-BUTYL ALCOHOL	71-36-3	10.0	50	50	4.4 @ 20.0

*** - PEL NOT ESTABLISHED

No water

SECTION III - PHYSICAL DATA

BOILING RANGE: 147 - 475 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 36 %

WEIGHT PER GALLON: 9.72 LBS

VAPORATION RATE: SLOWER THAN ETHER

2.57 ^{lb}

Sp. gravity =

$\frac{9.72}{6.34} = 1.17$

=====

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

D. CATEGORY: UN1263

FLASH POINT: 43 DEG F

REL: 0.0

EXTINGUISHING MEDIA:

USE NATIONAL PROTECTION ASSOCIATION (NEPA) CLASS B
EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED
TO EXTINGUISH NEPA CLASS I LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH
MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND
CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS,
OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR
OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL
POINT, OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY.
NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY)
BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.
CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE
TO VAPOR PRESSURE BUILD UP.

SPECIAL FIRE FIGHTING PROCEDURES:

SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE
OPERATED IN A PRESSURE-DEMAND MODE.
WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED
CONTAINERS.

=====

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION IX

PRIMARY ROUTES OF ENTRY: * INGESTION * ABSORPTION * INHALATION

EFFECTS OF OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.

SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION.

BREATHING - EXCESSIVE INHALATION MAY HAVE RESULTS FROM MILD
DEPRESSION TO LOSS OF CONSCIOUSNESS.SWALLOWING - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING
AND DIARRHEA.

=====

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. HARMFUL IF INHALED. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE FATAL IF SWALLOWED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Avoid breathing dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

FIRST AID: In case of contact(eyes)flush immediately with large amountsof water for at least 15 minutes.take to a physician for medical treatment. In case of contact with skin-wash affected areas with soap and water.Remove contaminated clothing.Consult a physician if irritation persists. POISON! If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT.
AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

WASTE DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

=====

SECTION IX - SPECIAL PRECAUTIONS

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID). ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKFORD COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

---LAST PAGE---

BEST AVAILABLE COPY

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

PC-501
Lac

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINTManufacturer's Code Identification:
12-7-5343Trade Name:
P.C. 501

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	%By Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Ca
XYLENE *	1330-20-7	10.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A	
ETHYL BENZENE * FLAMMABLE HAZARD	100-41-4	< 5.0	100.00 ppm	N/A	125.00 ppm	100.00 ppm Vapor Pressure 10.0 mmHG @ 26.0 Deg C	N/A	
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A	
CARBON BLACK	1333-86-4	< 5.0	3.50 mg/cu.m	N/A	N/A	3.50 mg/cu.m	N/A	
ALUMINUM *	7429-90-5	< 5.0	15.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 284 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 36 %

Weight per Gallon: 10.15 Lbs

Evaporation Rate: Slower Than Ether

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 1.0

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

- Eyes - Can cause severe irritation, redness, tearing, blurred vision.
- Skin - Prolonged or repeated contact can cause moderate irritation.
- Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.
- Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

=====

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amounts of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

=====

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

=====

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

=====
Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

=====
Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

MATERIAL SAFETY DATA SHEET

(1-5)

(CONFORMS TO O.S.H.A. FORM 20)

DATE OF PREPARATION 08-May-87

PAGE 1

SECTION I

MANUFACTURER'S NAME: ROCKEFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H ST. LOUIS, MO. 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS: 2

MANUFACTURER'S CODE IDENTIFICATION: 12-7-5389

TRADE NAME: PC 503

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO	ZBY WEIGHT	TLV PPK	PEL	VAPOR PRESSURE MMHG @ 20 DE
AROMATIC PETROLEUM DISTILLATES	64742-95-6	15.0	100	100	3.0 @ 20
1-3-PENTANEDIOL	25265-77-4	< 5.0	0	***	1.0 @ 87
BUTYL ALCOHOL	71-36-3	10.0	50	50	4.4 @ 20
OLENE	1330-20-7	< 5.0	100	100	5.1 @ 20

*** - PEL NOT ESTABLISHED

No water

SECTION III - PHYSICAL DATA

BOILING RANGE: 147 - 475 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 41 %

WEIGHT PER GALLON: 8.99 LBS

EVAPORATION RATE: SLOWER THAN ETHER

3.02

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY: UN1263

FLASH POINT: 43 DEG F

LEL: 0.0

EXTINGUISHING MEDIA:

USE NATIONAL PROTECTION ASSOCIATION (NEPA) CLASS B
EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED
TO EXTINGUISH NEPA CLASS I LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH
MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND
CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS,
OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR
OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL
POINT, OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY.
NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY)
BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.
CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE
TO VAPOR PRESSURE BUILD UP.

SPECIAL FIRE FIGHTING PROCEDURES:

SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE
OPERATED IN A PRESSURE-DEMAND MODE.
WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED
CONTAINERS.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

PRIMARY ROUTES OF ENTRY: x INGESTION x ABSORPTION x INHALATION

EFFECTS OF OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.

SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION.

BREATHING - EXCESSIVE INHALATION MAY HAVE RESULTS FROM MILD

DEPRESSION TO LOSS OF CONSCIOUSNESS.

SWALLOWING - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING
AND DIARRHEA.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. HARMFUL IF INHALED. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE FATAL IF SWALLOWED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Avoid breathing dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

FIRST AID: In case of contact flush eyes immediately with plenty of water for at least 15 minutes. For skin wash thoroughly with soap and water. POISON! If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

INCOMPATABILITY: AVOID CONTACT WITH STRONG OXIDING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT.
AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

WASTE DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

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SECTION IX - SPECIAL PRECAUTIONS

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID). ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKFORD COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

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MATERIAL SAFETY DATA SHEET

(Conforms to O.S.H.A. Form 20)

PC-503 ROC

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-7-5389

Trade Name:
CROWN BROWN

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	%By Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling
XYLENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A
PETROLEUM DISTILLATES	64742-95-6	15.0	50.00 ppm	N/A	N/A	N/A Vapor Pressure 10.0 mmHG @ 25.0 Deg C	N/A
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	10.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A
CARBON BLACK	1333-86-4	< 5.0	3.50 mg/cu.m	N/A	N/A	3.50 mg/cu.m	N/A

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 335 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 42 %

Weight per Gallon: 8.95 Lbs

Evaporation Rate: Slower Than Ether

Continued on Page: 2

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 0.9

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode.

Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amountsof water for at least 15 minutes.Take to a physisian for medical treatment.Remove contaminated clothing and shoes.wash contaminated clothing prior to reuse-destroy contam-inated shoes.For skin contact-wash affected areas with soap and water.consult a physisian if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconcious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompstability: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remsining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

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MATERIAL SAFETY DATA SHEET (4) 504 Rca

(CONFORMS TO O.S.H.A. FORM 20)

DATE OF PREPARATION 24-Feb-88

PAGE 1

SECTION I

FACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H ST. LOUIS, MO. 63125

TELEPHONE: 314-544-3600

UNIFORMED CLASS: 2 MANUFACTURER'S CODE IDENTIFICATION: 12-7-5404

PRODUCT NAME: PC 504

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO	BY WEIGHT	TLV PPM	PEL	VAPOR PRESS. MMHG @ DEG C
AROMATIC PETROLEUM DISTILLATES	1330-20-7	5.0	100	100	5.1 @ 20.0
PENTANEDIOL	64742-95-6	10.0	100	100	3.0 @ 20.0
ETHYL ALCOHOL	25265-77-4	5.0	0	***	1.0 @ 87.0
ETHYL ALCOHOL	71-36-3	5.0	50	50	4.4 @ 20.0
- PEL NOT ESTABLISHED					

No water

SECTION III - PHYSICAL DATA

BOILING RANGE: 147 - 475 DEG F

RELATIVE DENSITY: HEAVIER THAN AIR

2.65

VOLATILE BY VOLUME: 37 %

WEIGHT PER GALLON: 9.77 LBS

EVAPORATION RATE: SLOWER THAN ETHER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

IDENTIFICATION NUMBER: UN1263

BOILING POINT: 43 DEG F

0.0

EXTINGUISHING MEDIA:

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B
EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED
TO EXTINGUISH NFPA CLASS I LIQUID FIRES.

FLAMMABLE AND EXPLOSION HAZARDS:

MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH
MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND
MAY CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS,
OPEN FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR
OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL
CONTAINER. OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY.
NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY)
BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.
USED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE
TO VAPOR PRESSURE BUILD UP.

FLAMMABLE FIRE FIGHTING PROCEDURES:

USE SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE
OPERATED IN A PRESSURE-DEMAND MODE.
WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED
CONTAINERS.

SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LIMIT VALUE: SEE SECTION II

HAZARDOUS ROUTES OF ENTRY: X INGESTION X ABSORPTION X INHALATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

- CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
- PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION.
- SKIN - EXCESSIVE INHALATION MAY HAVE RESULTS FROM MILD
DEPRESSION TO LOSS OF CONSCIOUSNESS.
- INGESTION - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING
AND DIARRHEA.

SECTION V - HEALTH HAZARD DATA CONTINUED

(35)

... HARMFUL IF INHALED. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN
MAY BE FATAL IF SWALLOWED.
away from heat sparks and flame. Vapors may cause flash fire. Use with
adequate ventilation. Avoid breathing dust vapors or spray mist. Avoid
prolonged or repeated contact with skin. Avoid contact with eyes. Wash
thoroughly after handling.
Container closed when not in use. In case of spillage absorb with inert
material and dispose of in accordance with applicable regulations.
FIRST AID: In case of contact (eyes) flush immediately with large amounts of
water for at least 15 minutes. take to a physician for medical treatment. In
case of contact with skin - wash affected areas with soap and water. Remove
contaminated clothing. Consult a physician if irritation persists. POISON! If
exposed by inhalation of vapor or spray mist remove to fresh air. If
exposed get medical attention.
REMARKS: Reports have associated repeated and prolonged occupational
exposure to solvents with permanent brain and nervous system damage.
Occupational misuse by deliberately concentrating and inhaling the vapors
may be harmful or fatal.

SECTION VI - REACTIVITY DATA

STABLE AT NORMAL ROOM CONDITIONS.

COMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

POLYMERIZATION: WILL NOT OCCUR.

PRECAUTIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT. AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

FACE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

SECTION IX - SPECIAL PRECAUTIONS

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID). ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKWELL COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

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M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

*PC-504
ROC*

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-7-5404

Trade Name:
PC 504

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	XBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling
XYLENE *	1330-20-7	5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A
PETROLEUM DISTILLATES	64742-95-6	10.0	50.00 ppm	N/A	N/A	N/A Vapor Pressure 10.0 mmHG @ 25.0 Deg C	N/A
ETHYL BENZENE * FLAMMABLE HAZARD	100-41-4	< 5.0	100.00 ppm	N/A	125.00 ppm	100.00 ppm Vapor Pressure 10.0 mmHG @ 26.0 Deg C	N/A
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A
ALUMINUM *	7429-90-5	< 5.0	15.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 335 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 37 %

Weight per Gallon: 9.77 Lbs

Evaporation Rate: Slower Than Ether

=====
Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

=====
Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Costings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

=====
Section IV - Fire and Explosion Hazard Data BEST AVAILABLE COPY

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 0.9

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

=====
Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

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MATERIAL SAFETY DATA SHEET

(CONFORMS TO O.S.H.A. FORM 20)

DATE OF PREPARATION 24-Feb-88

PAGE 1

SECTION I

MANUFACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H
ST. LOUIS, MO. 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS:

MANUFACTURER'S CODE IDENTIFICATION:

2

12-9-5103

TRADE NAME:

P.C.509

Propylene Glycol

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO	ZBY WEIGHT	TLV PPM	PEL	VAPOR PRESS. MMHG @ DEG C
AROMATIC PETROLEUM DISTILLATES	64742-95-6 <	5.0	100	100	3.0 @ 20.0
1-3-PENTANEDIOL	25265-77-4	5.0	50	***	1.0 @ 87.0
DIETH GLYCOL MONOBUTYL ETHER	112-34-5 <	5.0	**	***	0.0 @ 20.0
N-BUTYL ALCOHOL	71-36-3	10.0	50	50	4.4 @ 20.0
XYLENE	1330-20-7	5.0	100	100	5.1 @ 20.0

* TLV NOT ESTABLISHED
*** PEL NOT ESTABLISHED

Xylene
EB

No water

N Butyl Alcohol
Titanium Dioxide

SECTION III - PHYSICAL DATA

BOILING RANGE: 147 - 475 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 42 %

WEIGHT PER GALLON: 11.55 LBS

EVAPORATION RATE: SLOWER THAN ETHER

2.61

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

(2-5)

UN1263

FLASH POINT: 43 DEG F

REL: 0.0

EXTINGUISHING MEDIA:

USE NATIONAL PROTECTION ASSOCIATION (NEPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NEPA CLASS I LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL POINT, OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY. NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE TO VAPOR PRESSURE BUILD UP.

SPECIAL FIRE FIGHTING PROCEDURES:

SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN A PRESSURE-DEMAND MODE. WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED CONTAINERS.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

PRIMARY ROUTES OF ENTRY: x INGESTION ABSORPTION x INHALATION

EFFECTS OF OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION. SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION. BREATHING - EXCESSIVE INHALATION MAY HAVE RESULTS FROM MILD DEPRESSION TO LOSS OF CONSCIOUSNESS. SWALLOWING - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING AND DIARRHEA.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. HARMFUL IF INHALED. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE FATAL IF SWALLOWED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Avoid breathing dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

FIRST AID: In case of contact (eyes) flush immediately with large amount of water for at least 15 minutes. take to a physician for medical treatment. In case of contact with skin-wash affected areas with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. POISON! If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT.
AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

WASTE DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MESA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN POSITIVE PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

=====

SECTION IX - SPECIAL PRECAUTIONS

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID) ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKFORD COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

---LAST PAGE---

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

PC-509
Rae

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-9-5103

Trade Name:
P.C.509 IVORY

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	ZBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling
XYLENE *	1330-20-7	10.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A
ETHYL BENZENE * FLAMMABLE HAZARD	100-41-4	< 5.0	100.00 ppm	N/A	125.00 ppm	100.00 ppm Vapor Pressure 10.0 mmHG @ 26.0 Deg C	N/A
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	< 5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A
TITANIUM DIOXIDE *	13463-67-7	30.0	10.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 284 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 36 %

Weight per Gallon: 11.52 Lbs

Evaporation Rate: Slower Than Ether

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 1.0

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. Consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

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If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

MATERIAL SAFETY DATA SHEET

(CONFORMS TO O.S.H.A. FORM 20)

5/11 RoC (14)

DATE OF PREPARATION 11-APR-85

PAGE 1

SECTION I

MANUFACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVENUE H
ST. LOUIS, MO 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS:
PAINT

MANUFACTURER'S CODE IDENTIFICATION:
12-7-5411

TRADE NAME:
P.C. 511

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	% BY WEIGHT	TLV PPM	LEL	VAPOR PRESS. MMHG @ DEG C
D-100/HI SOL 10	LESS THAN 5	100	1.0	3.0 @ 20.0
UTYL CARBITOL DB	LESS THAN 1.5		0.9	
EXANOL	LESS THAN 5		0.6	125.0 @ 20.0
ELLOSOLVE ACETATE EE	10	25	1.8	2.0 @ 20.0
-BUTYL ALCOHOL	5	50	1.4	4.0 @ 20.0
C-150/HI SOL 15	LESS THAN 1.5	100	1.0	5.0 @ 37.8
YL0L	LESS THAN 5	100	1.0	19.4 @ 20.0
THYL ALCOHOL /C-1 190	LESS THAN 1.5	1000	4.3	44.0 @ 20.0

No water

SECTION III - PHYSICAL DATA

BILING RANGE: 165 - 490 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 43 %

WEIGHT PER GALLON: 11.59 LBS

FLASH POINT: 60 DEG F

old 3.13 (lb voc/gal)

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PERSONNEL DEPARTMENT

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 SECTION IV - FIRE AND EXPLOSION HAZARD DATA
 =====

(2-4)

DOT CATEGORY: UN1263

FLASH POINT: 60 DEG F

EL: SEE SECTION II

EXTINGUISHING MEDIA:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFFA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NFFA CLASS I LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL POINT, OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY. NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE TO VAPOR PRESSURE BUILD UP.

SPECIAL FIRE FIGHTING PROCEDURES:

SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN A PRESSURE-DEMAND MODE. WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED CONTAINERS.

 =====
 SECTION V - HEALTH HAZARD DATA
 =====

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.

SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION.

BREATHING - EXCESSIVE INHALATION MAY HAVE RESULTS RANGING FROM MILD DEPRESSION TO LOSS OF CONSCIOUSNESS.

SWALLOWING - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING AND DIARRHEA.

EMERGENCY AND FIRST AID PROCEDURES:

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE AND LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED, START RESUSCITATION, GET MEDICAL ATTENTION, KEEP INDIVIDUAL WARM AND QUIET.

IF SWALLOWED: DO NOT INDUCE VOMITTING. KEEP PERSON WARM AND QUIET. GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO LUNGS DUE TO VOMITTING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

APR 16 1985

CONTINUED ON PAGE: 3

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 PERFORMANCE DEPARTMENT

SECTION VI - REACTIVITY DATA

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT. AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MESA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT RESISTANT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

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EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

APR 16 1985

PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

ALUMAX EXTRUSIONS
PERSONNEL DEPARTMENT

SECTION IX - SPECIAL PRECAUTIONS

(4-4)

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID). ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKFORD COATINGS CORP. OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

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MATERIAL SAFETY DATA SHEET

(Conforms to O.S.H.A. Form 20)

PC-S11
ROC

Date of Preparation 22-Feb-90

Page 1

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Section I
=====

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-7-5411

Trade Name:
BEIGE EXTRUSION

=====
Section II - HAZARDOUS INGREDIENTS
=====

Ingredients	CAS No	%By Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Ca
XYLENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A	
CELLSOLV ACETATE	111-15-9	5.0	N/A	N/A	N/A	100.00 ppm Vapor Pressure 2.0 mmHG @ 20.0 Deg C	N/A	
PETROLEUM DISTILLATES	64742-95-6	< 5.0	50.00 ppm	N/A	N/A	N/A Vapor Pressure 10.0 mmHG @ 25.0 Deg C	N/A	
BUTYL CARBITOL	112-34-5	< 5.0	N/A	N/A	N/A	35.00 ppm Vapor Pressure 0.1 mmHG @ 25.0 Deg C	N/A	
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A	
FORMALDEHYDE *	50-00-0	< 1.0	1.00 ppm Peak Exposure 10.00 ppm for 30.00 Minutes	5.00 ppm	2.00 ppm	3.00 ppm	N/A	
TITANIUM DIOXIDE *	13463-67-7	30.0	10.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	

* SARA, Sec. #313 Reportable

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Section III - Physical Data
=====

Boiling Range: 148 - 314 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 44 %

Weight per Gallon: 11.49 Lbs

Evaporation Rate: Slower Than Ether

=====
Section IV - Fire and Explosion Hazard Data
=====

DOT Category: UN1263

Flash Point: 85 Deg F

LEL: 1.0

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode.

Water spray will be effective and should be used to cool closed containers.

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Section V - Health Hazard Data
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Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CONTAINS ETHYLENE GLYCOL MONO ETHYL ETHER. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. OVEREXPOSURE MAY CAUSE BLOOD DISORDERS. BASED ON TESTS WITH LABORATORY ANIMALS OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDERS AND BIRTH DEFECTS. CAUSES BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. BEFORE USING READ MATERIAL SAFETY DATA SHEET.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Wear an appropriate properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Do not get in eyes on skin or on clothing. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

PC-513 ROC

MATERIAL SAFETY DATA SHEET

(CONFORMS TO O.S.H.A. FORM 20)

DATE OF PREPARATION 24-Feb-68

(PAGE 1-5)

SECTION I

MANUFACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H
ST. LOUIS, MO. 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS: MANUFACTURER'S CODE IDENTIFICATION:

TRADE NAME: 2 12-6-5205

PC 513 BLACK POL

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO	ZBY WEIGHT	TLV PPM	PEL	VAPOR PRESS. MMHG @ DEG C
ETHOXYETHYL ACETATE	111-15-9	5.0	100	5	2.0 @ 20.0
AROMATIC PETROLEUM DISTILLATES	64742-95-6	15.0	100	100	3.0 @ 20.0
ETH GLYCOL MONOBUTYL ETHER	112-34-5	5.0	**	**	0.0 @ 20.0
BUTYL ALCOHOL	71-36-3	5.0	50	50	4.4 @ 20.0
OLENE	1330-20-7	5.0	100	100	5.1 @ 20.0

* - TLV NOT ESTABLISHED
** - PEL NOT ESTABLISHED

SECTION III - PHYSICAL DATA

BILING RANGE: 147 - 452 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 44 %

WEIGHT PER GALLON: 9.37 LBS

EVAPORATION RATE: SLOWER THAN ETHER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (25)

Hazard Category: UN1363

Flash Point: 54 DEG F

VLE: 0.0

EXTINGUISHING MEDIA:

USE NATIONAL PROTECTION ASSOCIATION (NEPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NEPA CLASS I LIQUID FIRES.

USUAL FIRE AND EXPLOSION HAZARDS:

MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL POINT. OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY. NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE TO VAPOR PRESSURE BUILD UP.

SPECIAL FIRE FIGHTING PROCEDURES:

CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN A PRESSURE-DEMAND MODE. WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED CONTAINERS.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value: SEE SECTION II

Primary Routes of Entry: INGESTION ABSORPTION INHALATION

EFFECTS OF OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION.
BREATHING - EXCESSIVE INHALATION MAY HAVE RESULTS FROM MILD DEPRESSION TO LOSS OF CONSCIOUSNESS.
SALLOWING - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING AND DIARRHEA.

SECTION V - HEALTH HAZARD DATA CONTINUED

(3-5)

AMMABLE. HARMFUL IF INHALED. CONTAINS ETHYLENE GLYCOL MONO ETHYL ETHER. MAY HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. OVEREXPOSURE MAY CAUSE BLOOD BORDERS. BASED ON TESTS WITH LABORATORY ANIMALS OVEREXPOSURE MAY CAUSE PRODUCTIVE DISORDERS AND BIRTH DEFECTS. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF ALLOWED. BEFORE USING READ MATERIAL SAFETY DATA SHEET.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe dust vapors or spray mist. Avoid prolonged repeated contact with skin. Wear an appropriate properly fitted respirator (OSHA/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Do not get in eyes on or on clothing. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

FIRST AID: In case of contact immediately flush eyes with large amounts of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to use - destroy contaminated shoe. For skin contact - wash affected areas with soap and water. Consult a physician if irritation persists. POISON! If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed get medical attention.

NOTE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Occupational misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

(4-5)

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

COMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT. AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

S. DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MESA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

H. PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

SECTION IX - SPECIAL PRECAUTIONS

(55)

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID) ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKFORD COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

---LAST PAGE---

ROCKFORD
COATINGS
CORPORATION

PC-513 - Black

PRODUCT DATA SHEET

PRODUCT NUMBER: 12-6-5205

CUSTOMER'S NUMBER: YT-155

NAME OF MATERIAL: YT-155 BLACK POLY

DATE: 30-Jan-85

WT/GAL: 9.43

VISCOSITY: 35-40 SEC. #4 FORD CUP

REDUCTION: HEAT (110 F) IF NEEDED

VOLUME SOLIDS: 56.82 + OR - 2%

WEIGHT SOLIDS: 66.05 + OR - 2%

SUBSTRATE: ALUMINUM

APPLICATION: TURBO DISC

CURE: TEMPERATURE 350F

TIME: 12 MINUTES

THICKNESS: DRY FILM .8 MILS

WET FILM 1.4 MILS

PENCIL HARDNESS: 2H

GLOSS: 38 % AT 60 DEGREES

FLEXIBILITY: EXCELLENT

V O C = 3.2

REMARKS: PASSES AAMA SPECS.

INFORMATION CONTAINED HEREIN IS, TO OUR BEST KNOWLEDGE, TRUE AND ACCURATE, BUT ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE. SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL THE ROCKFORD COATINGS CORPORATION DISCLAIMS ANY LIABILITY INCURRED IN CONNECTION WITH THE USE OF OUR PRODUCTS AND INFORMATION CONTAINED HEREIN. NO PERSON IS AUTHORIZED TO MAKE ANY STATEMENT OR RECOMMENDATION NOT CONTAINED HEREIN, AND ANY SUCH STATEMENT OR RECOMMENDATION SO MADE SHALL NOT BIND THE CORPORATION. FURTHERMORE, NOTHING CONTAINED HEREIN SHALL BE CONSTRUED AS A RECOMMENDATION TO USE ANY PRODUCT WHICH MAY CONFLICT WITH EXISTING PATENTS COVERING ANY MATERIAL OR ITS USE AND NO LICENSE IMPLIED OR IN FACT GRANTED HEREIN UNDER THE CLAIMS OF ANY PATENTS.

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

PC 513
ROC

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-G-5205

Trade Name:
YI-155 BLACK POL

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	ZBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling
XYLENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A
CELLOSOLVE ACETATE	111-15-9	10.0	N/A	N/A	N/A	100.00 ppm Vapor Pressure 2.0 mmHG @ 20.0 Deg C	N/A
PETROLEUM DISTILLATES	64742-95-6	15.0	50.00 ppm	N/A	N/A	N/A Vapor Pressure 10.0 mmHG @ 25.0 Deg C	N/A
BUTYL CARBITOL	112-34-5	< 5.0	N/A	N/A	N/A	35.00 ppm Vapor Pressure 0.1 mmHG @ 25.0 Deg C	N/A
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A
CARBON BLACK	1333-86-4	< 5.0	3.50 mg/cu.m	N/A	N/A	3.50 mg/cu.m	N/A

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 335 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 44 %

Weight per Gallon: 9.47 Lbs

Evaporation Rate: Slower Than Ether

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 85 Deg F

LEL: 0.9

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode.

Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

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SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CONTAINS ETHYLENE GLYCOL MONO ETHYL ETHER. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. OVEREXPOSURE MAY CAUSE BLOOD DISORDERS. BASED ON TESTS WITH LABORATORY ANIMALS OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDERS AND BIRTH DEFECTS. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. MAY BE FATAL IF INHALED. BEFORE USING READ MATERIAL SAFETY DATA SHEET.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Wear an appropriate properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Do not get in eyes on skin or on clothing. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID:

In case of contact immediately flush eye with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove

contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

=====

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

=====
Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

=====
Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

BEST AVAILABLE COPY-----
Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid)
All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

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*PC-515
ROC*

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class: PAINT
Trade Name: PC 515

Manufacturer's Code Identification: 12-4-5204

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	%By Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling
XYLENE *	1330-20-7	5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A
PETROL UM DISTILLATES	64742-95-6	5.0	50.00 ppm	N/A	N/A	N/A Vapor Pressure 10.0 mmHG @ 25.0 Deg C	N/A
BUTYL CARBITOL	112-34-3	< 5.0	N/A	N/A	N/A	35.00 ppm Vapor Pressure 0.1 mmHG @ 25.0 Deg C	N/A
ETHYL BENZENE * FLAMMABLE HAZARD	100-41-4	< 5.0	100.00 ppm	N/A	125.00 ppm	100.00 ppm Vapor Pressure 10.0 mmHG @ 26.0 Deg C	N/A
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	10.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A
S-BUTYL ALCOHOL * FLAMMABLE HAZARD	78-92-2	< 5.0	100.00 ppm	N/A	N/A	150.00 ppm Vapor Pressure 10.0 mmHG @ 20.0 Deg C	N/A
FORMALDEHYDE *	50-00-0	< 1.0	1.00 ppm Peak Exposure 10.00 ppm for 30.00 Minutes	5.00 ppm	2.00 ppm	3.00 ppm	N/A
LEAD **	7439-92-1	5.0	0.15 mg/cu.m	N/A	N/A	N/A	N/A
CHROMIUM VI OXIDE *	1333-82-0	< 5.0	0.05 mg/cu.m	N/A	N/A	N/A	N/A

* SARA, Sec. #313 Reportable

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Section III - Physical Data
=====

Boiling Range: 148 - 471 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 45 %

Weight per Gallon: 9.69 Lbs

Evaporation Rate: Slower Than Ether

=====
Section IV - Fire and Explosion Hazard Data
=====

DOT Category: UN1263

Flash Point: 72 Deg F

LEL: 0.6

Extinguishing Media:

Use National Protection Association (NEPA) Class B
extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed
to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which
may travel along the ground or be moved by ventilation and
cause flash fires or be ignited explosively by pilot lights,
other flames, sparks, heaters, smoking, electric motors, or
other sources of ignition at locations distant from material
point, overspray dust may ignite spontaneously.
Never use welding or cutting torch on or near drum (even empty)
because product (even just residue) can ignite explosively.
Closed containers may explode when exposed to extreme heat, due
to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece
operated in a pressure-demand mode.
Water spray will be effective and should be used to cool closed
containers.

=====
Section V - Health Hazard Data
=====

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.
Skin - Prolonged or repeated contact can cause moderate irritation.
Breathing - Excessive inhalation may have results from mild
depression to loss of consciousness.
Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting
and diarrhea.

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SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Do not get in eyes on skin or on clothing. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID:

In case of contact immediately flush eyes with large amounts of water for at least 15 minutes. Take to a physician for medical treatment. Remove

contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas

with soap and water. consult a physician if irritation persists. POISON! If

inhaled remove to fresh air. If not breathing give artificial respiration

preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed

induce vomiting immediately by giving two glasses of water and sticking

finger down throat. Never give anything by mouth to an unconscious person.

NOTICE: Reports have associated repeated and prolonged occupational

overexposure to solvents with permanent brain and nervous system damage.

Intentional misuse by deliberately concentrating and inhaling the contents

may be harmful or fatal.

=====

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

=====

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

MATERIAL SAFETY DATA SHEET

(CONFORMS TO U.S.H.A. FORM 20)

DATE OF PREPARATION 24-Feb-88

(PAGE 1-5)

SECTION I

MANUFACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H ST. LOUIS, MO. 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS: MANUFACTURER'S CODE IDENTIFICATION:

TRADE NAME: PC 515 12-4-5204

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO.	BY WEIGHT	TLV PPM	PEL	VAPOR PRESS. MMHG @ DEG C
AROMATIC PETROLEUM DISTILLATES	1330-20-7	5.0	100	100	5.1 @ 20.0
1,5-PENTANEDIOL	64742-95-6	5.0	100	100	3.0 @ 20.0
ETHYLENE GLYCOL MONOBUTYL ETHER	25265-77-4	5.0	0	***	1.0 @ 87.0
BUTYL ALCOHOL	112-34-5	5.0	XX	***	0.0 @ 20.0
BUTYL ALCOHOL	71-36-3	10.0	50	50	4.4 @ 20.0

TLV - NOT ESTABLISHED
PEL - NOT ESTABLISHED

LEAD CONTENT 5.75
CHROMIUM CONTENT 2.12

SECTION III - PHYSICAL DATA

BOILING RANGE: 147 - 475 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 45 %

WEIGHT PER GALLON: 9.69 LBS

EVAPORATION RATE: SLOWER THAN ETHER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

1251

REGISTRY: UN1263

TEMPERATURE POINT: 43 DEG F

LEL: 0.0

EXTINGUISHING MEDIA: USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY-CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NFPA CLASS I LIQUID FIRES.

USUAL FIRE AND EXPLOSION HAZARDS: MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND CAUSE FLASH FIRES OR BE IGNITED EXPLOSIVELY BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, OR OTHER SOURCES OF IGNITION AT LOCATIONS DISTANT FROM MATERIAL POINT. OVERSPRAY DUST MAY IGNITE SPONTANEOUSLY. NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT, DUE TO VAPOR PRESSURE BUILD-UP.

SPECIAL FIRE FIGHTING PROCEDURES: SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN A PRESSURE-DEMAND MODE. WATER SPRAY WILL BE EFFECTIVE AND SHOULD BE USED TO COOL CLOSED CONTAINERS.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

PRIMARY ROUTES OF ENTRY: INGESTION ABSORPTION INHALATION

EFFECTS OF OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
 SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION.
 BREATHING - EXCESSIVE INHALATION MAY HAVE RESULTS FROM MILD DEPRESSION TO LOSS OF CONSCIOUSNESS.
 ALLOWING - CAN CAUSE GASTRO-INTESTINAL IRRITATION, NAUSEA, VOMITTING AND DIARRHEA.

SECTION V - HEALTH HAZARD DATA CONTINUED

(35)

FLAMMABLE. HARMFUL IF INHALED. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE FATAL IF SWALLOWED.

Do not use on toys furniture or surfaces of other articles which might be used by children. Wash hands thoroughly after using and before smoking or eating. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Avoid breathing dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

FIRST AID: In case of contact (eyes) flush immediately with large amount of water for at least 15 minutes. take to a physician for medical treatment. In case of contact with skin-wash affected areas with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. POISON! If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed get medical attention.

NOTE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

COMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT.
AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MESA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

SECTION IX - SPECIAL PRECAUTIONS

(55)

STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID). ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKFORD COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

---LAST PAGE---

PC 578
SW

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
601 Prospect Avenue N.W.
Cleveland, Ohio 44115
DATE OF PREPARATION
9-Jun-88

EMERGENCY TELEPHONE NO.
(216) 566-2917

INFORMATION TELEPHONE NO.
(216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER * - Trade Mark
678 W C92
PRODUCT NAME
PERMACLAD* 2400 Enamel, White.
PRODUCT CLASS
Amino-Polyester Enamel

Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS
1330-20-7	Xylene.	45	100	100	5.9
14742-95-6	Light Aromatic Naphtha	5	100		FFM 3.8
14742-94-5	Heavy Aromatic Naphtha	5	50		FFM 0.1
13463-67-7	Titanium Dioxide.	45	Not Established		as Dust

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether
BOILING RANGE 78-415 F
VOLATILE VOLUME 28.0 %
VAPOR DENSITY -- Heavier than Air
WT/GAL 12.75 lb.
VOC (Theoretical) 2.80 lb./Gall

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION Combustible; Flash above 99 and below 200 F
FLASH POINT 105 F FMCC
LEL 0.7
EXTINGUISHING MEDIA Carbon Dioxide, Dry Chemical, Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
SPECIAL FIRE FIGHTING PROCEDURES
Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE
Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

2.80 lb VOC / Gall - Solids
Continued on page 2

ACUTE Health Hazards
EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Eye overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before reuse.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer; however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates such as titanium dioxide or calcium carbonate (see ACGIH TLV List, Preface and Appendix D), which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 0.05 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

378 W C92

PERMACLAD* 2400 Enamel, White.

Page 3

LABORATORY PROTECTION

Personal exposure cannot be controlled below applicable limits by ventilation; wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Section IX -- PRECAUTIONS

HAZARD STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

ENVIRONMENTAL DATA SHEET

THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115
 3-APR-90

518 SW

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

PRODUCT: G78 W C127 * - Trade Mark

PERMACLAD* 2400 Enamel, White. **PC 518LS**

PRODUCT WEIGHT 11.72 lb./gal. SPECIFIC GRAVITY 1.41 FLASH POINT 105 F PMCC

HAZARD CATEGORY (for SARA 311/312)
 Acute Fire

SARA 302 EHS	SARA 313 TC	Percent by Weight	Percent by Volume
--------------	-------------	-------------------	-------------------

VOLATILE INGREDIENTS

1330-20-7 Xylene.	N	Y	Y	9	14
64742-95-6 Light Aromatic Naphtha	N	N	N	9	15
64742-94-5 Heavy Aromatic Naphtha	N	N	N	2	3

AIR QUALITY DATA

Percent Volatile (= Organic Volatiles)	21.6 by wt.	35.0 by vol.
Volatile Organic Compounds (VOC) - Total	2.51 lb./gal.	301 s./l.
VOC per gal. (l.) of Coatings less Water	2.52 lb./gal.	302 s./l.
VOC per gal. (l.) of Solids	3.87 lb./gal.	464 s./l.
Density of Organic Solvent Blend	7.22 lb./gal.	
Photochemically Reactive	YES	

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number.

678 W C127

MATERIAL SAFETY DATA SHEET

2

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
(216) 566-2917

DATE OF PREPARATION
3-APR-90

INFORMATION TELEPHONE NO.
(216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER

678 W C127

* - Trade Mark

PRODUCT NAME

PERMACLAD* 2400 Enamel, White.

PRODUCT CLASS

Amino-Polyester Enamel

Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
1330-20-7	Xylene.	10	100	100	PPM	5.9
			STEL 150	150	PPM	
64742-95-6	Light Aromatic Naphtha	10	100		PPM	3.8
64742-94-5	Heavy Aromatic Naphtha	<5	50		PPM	0.1
7631-86-9	Amorphous Silica.	<5	10	6	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	35	10	10(5)	Mg/M3 as Dust **	

*** Total Dust (Respirable Fraction)

Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 11.71 lb./gal. EVAPORATION RATE -- Slower than EtH₂O

SPECIFIC GRAVITY -- 1.41 VAPOR DENSITY -- Heavier than Air

BOILING RANGE -- 281-415 F MELTING POINT -- N.A.

VOLATILE VOLUME -- 35 % SOLUBILITY IN WATER -- N.A.

VOC (Theoretical) -- 2.52 lb. 302 gm.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F FMCC LEL 0.7 UEL

Combustible, Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE.

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED: Get medical attention.

CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer; however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

HAZARDOUS POLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facilities. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

678 W C127

PERHACLAD* 2400 Enamel, White.

 Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed 'as Dust' in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

 Section IX -- PRECAUTIONS

DOL STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

MATERIAL SAFETY DATA SHEET

5/8 Page 1
Lilly

FOR COATING, RESINS, AND RELATED MATERIALS

Date of Preparation- 7/21/89
Prepared by- RON ROBINSON
Manufacturer: LILLY INDUSTRIAL COATINGS, INC.
Address : 2305 Industrial Road
P.O. Box 1305
Dothan, AL 36302

Telephone#: (205) 794-7555 Night: (205) 794-7555
Emergency#: (205) 794-7555 Night: (205) 794-7555

SECTION I PRODUCT IDENTIFICATION

Manufacturer's Code Identification: 247-104
Product Class:
Trade Name: LDA3000 WHITE HIGH SOLID ENAMEL

HMIS Information: Health- 2 Flammability- 3
Reactivity- 0 Personal Protective Equipment- X
HAZARD INDEX: 4= Severe 3= Serious 2= Moderate 1= Slight 0= Least
Ask your supervisor for specialized handling directions.

SECTION II HAZARDOUS INGREDIENTS

INGREDIENT	CAS#	% BY WT.	ACGIH TLV(TWA) PPM	OSHA PEL PPM OTHER	VAPOR PRESSURE LIMITS
09 EXXATE 600	/88230-35-7	/ 3.30	/ 5.00/NOT EST/		3.00
11 AROMATIC NAPHTHA	/64742-94-5	/ 2.21	/ 100.00/NOT EST/		.10
13 N-BUTANOL	/71-36-3	/ 1.72	/ 50.00/ 100.00/		6.50
20 XYLENE	/1330-20-7	/ 7.11	/ 100.00/ 100.00/		6.60
					/* SKIN NOTATION
					/STEL = 150 PPM
					ACGIH
29 METHYL ETHYL KETONE	/78-93-3	/ 1.38	/ 200.00/ 200.00/		7.20
2-Butanone	/	/	/		/STEL = 300 PPM
		% LEADED PIGMENT	.00		

no water

2.4 lb/Gal

34% Volatile by Vol

LDA3000 WHITE HIGH

SOLID ENAMEL

SECTION III PHYSICAL DATA

Boiling Range: High- 355.0 F Low- 150.0 F
Vapor Pressure: See Section II
Vapor Density: Heavier Than Air
Evaporation Rate: Slower than Ether
Weight per Gallon: 12.1
% Volatile by Weight: 20.09
VOC: N/A
Appearance: N/A
pH: N/A

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flammability Classification: Class 1C DOT: Flammable Liquid
Actual Flashpoint TCC: 87.0 F
Explosion Level: Lower- 1.0 Upper- 11.2
Upper Flammability Limit: N/A
Auto Ignition Temperature: N/A
EXTINGUISHING MEDIA

Use CO2, Dry Chemical, or Foam extinguisher.
The National Fire Protection Association Class B extinguisher is designed to extinguish NFPA class 1B flammable liquid fires.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.

UNUSUAL FIRE AND EXPLOSION HAZARD:

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed container may explode when exposed to extreme heat. Do not apply to hot surfaces. Never use welding or cutting torch on or near container (even empty) because product (even residue) may ignite explosively.

HEAT PROTECTION PROCEDURES

Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture.

SECTION V HEALTH HAZARD DATA

EFFECTS OF EXCESSIVE OVEREXPOSURE

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use.

This product contains organic solvents which may cause eye, skin, and and respiratory tract irritation. The symptoms of exposure are: tearing eyes; redness, drying and cracking of the skin; dizziness, nausea, and fatigue from inhalation; and vomiting from ingestion.

This product can cause allergic sensitization.

Based on the presence of components (29) ingestion of this product will cause irritation of the gastrointestinal tract and may cause effects resembling those from inhalation of vapor.

Based on the presence of components (11) ingestion of this product may resulting in severe stomach pain, nausea, coma, and even death. Ingestion may cause possible liver damage.

Ingestion may cause possible kidney damage.

FIRST AID

EYE CONTACT: Flush with luke warm water for 15 minutes. Seek physician immediately.

SKIN CONTACT: Flush wash with copious amounts of luke warm water. Remove contaminated clothing promptly. Contact a physician immediately.

INHALATION: Remove exposed individual to fresh air. Restore breathing if required. Contact a physician immediately.

INGESTION: Rinse mouth immediately. Give exposed individual 6 to 8 ounces of liquid. (Never give anything by mouth to an unconscious person.) Do NOT induce vomiting unless advised by a physician. Contact a physician immediately.

SECTION VI REACTIVITY DATA

CONDITIONS TO AVOID

Avoid exposure to sparks, open flame, hot surfaces, and all sources of heat and ignition.

May produce hazardous fumes when heated to decomposition as in welding.

Fumes may contain carbon monoxide, carbon dioxide, and oxides of nitrogen.

INCOMPATIBILITY (Materials to Avoid)

This product is incompatible with strong acids.

STABILITY

This product is stable.

HAZARDOUS POLYMERIZATION

Will not occur.

LDA3000 WHITE HIGH

SOLID ENAMEL

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Stay upwind and away from spill unless wearing appropriate protective equipment. Stop and/or contain discharge if it may be done safely. Keep all sources of ignition away. Ventilate area of spill. Use non-sparking tools for cleanup. Cover with inert material to reduce fumes. Keep out of drains, sewers, or waterways. Contact fire authorities. Notify local health and pollution control agencies. Call spill response teams if large spill.

WASTE DISPOSAL METHOD

DO NOT FLUSH TO SEWER, WATERSHED, OR WATERWAY.

Dispose of in accordance with local, state and federal regulations. Do not incinerate closed containers.

SECTION VIII SAFE HANDLING AND USE INFORMATION

DISCRETION ADVISED

Lilly Industrial Coatings, Inc. takes no responsibility for determining what measures are required for personal protection in any specific application. The general information given should be used with discretion.

PROTECTIVE GLOVES

Required for prolonged or repeated contact. Wear resistant gloves such as natural rubber, neoprene, buna N or nitrile. An apron should be worn to avoid skin contact.

HYGIENIC PRACTICES

WASH HANDS THOROUGHLY BEFORE EATING AND USING WASHROOM.

Wash hands thoroughly before eating and using washroom.

PROTECTIVE EYEWEAR

Avoid contact with eyes. Wear goggles if there is a likelihood of contact with eyes. Eyewash stations and safety showers should be readily available in handling areas. Use safety eyewear with perforated sideshields.

Use safety eyewear with perforated sideshields.

RESPIRATORY PROTECTION

In outdoor or open areas use (NIOSH/MSHA approved) mechanical filter respirator to remove solid airborne particles of overspray during spray application. In restricted ventilation areas use (NIOSH/MSHA approved) chemical-mechanical filters designed to remove a combination of particulate and gas and vapor. In confined areas use (NIOSH/MSHA approved) air line type respirators or hoods. Respiratory protection may also be necessary in any later manufacturing operations in which the product may become airborne in the form of vapor or dust.

VENTILATION

Use ventilation as required to control vapor concentrations. Avoid prolonged or repeated breathing of vapors. If exposure exceeds TLV, use a NIOSH-approved respirator to prevent overexposure.

Provide general dilution or local exhaust ventilation in volume and pattern to keep TLV of the most hazardous ingredient in Section II below acceptable limit, LEL in Section IV below stated limit, and to remove decomposition products during welding or flame cutting on surfaces coated with this product.

HYGIENIC PRACTICES

WASH HANDS THOROUGHLY BEFORE EATING AND USING WASHROOM.
Remove contaminated clothing immediately and do not wear it until it has
been properly laundered.

SECTION IX SPECIAL PRECAUTIONS

HANDLING AND STORING PRECAUTIONS

Keep product containers cool, dry, and away from sources of ignition. Use
and store this product with adequate ventilation. Do NOT smoke in storage
areas.

Personnel should avoid inhalation of vapors. Personal contact with the
product should be avoided. Should contact be made, remove saturated
clothing and flush affected skin areas with water. Containers of this
material may be hazardous when emptied. Since emptied containers retain
product residues (vapor, liquid, and/or solid), all hazard precautions
given in this sheet must be observed.

SECTION X Section 313 Toxic Chemicals

This product contains the following toxic chemicals subject to the
reporting requirements of section 313 of the Emergency Planning and
Community Right-To-Know Act of 1986 and of 40 CFR 372. This information
must be included in all MSDSs that are copied and distributed
for this material.

Chemical	CAS Number	Weight %
N-BUTANOL	71-36-3	1.72
XYLENE	1330-20-7	7.11
METHYL ETHYL KETONE	78-93-3	1.38

THE INFORMATION CONTAINED HEREIN IS INFORMATION RECEIVED
FROM OUR RAW MATERIAL SUPPLIERS AND OTHER SOURCES AND
IS BELIEVED TO BE RELIABLE. THIS DATA IS NOT TO BE TAKEN -
AS A WARRANTY OR REPRESENTATION FOR WHICH LILLY INDUSTRIAL
COATINGS, INC. ASSUMES LEGAL RESPONSIBILITY.

(Handwritten signature)

518 SW
8/88

AIR QUALITY DATA SHEET

THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, Ohio 44115
11-Aug-88

The composition given below is the composition of the product AS FORMULATED. Variations may occur on individual batches because of adjustments made during production.

PRODUCT: G78 W C112 *PC 518* * - Trade Mark

PERMACLAD* 2400 Enamel, White.

WEIGHT/GALLON PRODUCT: 12.13

VOLATILE ORGANIC COMPOUNDS

NON-VOLATILE by Weight: 83.2%

244 Grams VOC

by Volume: *72.0* 71.9%

2.04 Pounds VOC

VOLATILE by Weight: 16.8%

DENSITY OF ORGANIC SOLVENT BLEND

by Volume: *28.0* 28.1%

7.28 Pounds/Gallon

SOLVENT COMPOSITION

	PERCENT OF VOLATILE by Weight	by Volume
100-41-4 Ethylbenzene	2.3	2.4
1330-20-7 Xylene.	44.9	45.6
64742-95-6 Light Aromatic Naphtha	10.9	11.0
64742-94-5 Heavy Aromatic Naphtha	26.8	26.4
67-63-0 2-Propanol	1.9	2.2
78-83-1 2-Methyl-1-Propanol	0.2	0.3
78-93-3 Methyl Ethyl Ketone.	2.0	2.1
108-10-1 Methyl Isobutyl Ketone.	2.0	2.2
124-17-4 2-(2-Butoxyethoxy)ethyl Acetate.	8.0	7.1
108-65-6 1-Methoxy-2-Propanol Acetate	0.1	0.1
124-40-3 Dimethylamine.	0.3	0.2
7732-18-5 Water	0.4	0.3

< 0.1%

SOLVENT BLEND COMPOSITION PER CLASSIFICATION

Olefins or Cyclo-Olefinic compounds	0.0
Aromatic Hydrocarbon with 8 or more Carbon Atoms except Ethylbenzene	83.0
Branched Ketones	2.2
Ethylbenzene and/or Toluene and/or Trichloroethylene	2.4
TOTAL NON-COMPLYING	87.6

2.00 lb VOC / Gal
2.77 lb VOC / Gal - Sol

The Solvent Blend of this Product IS PHOTOCHEMICAL as packaged.

BEST AVAILABLE COPY

G78 W C112

MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME
 THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
 (216) 566-2917

DATE OF PREPARATION
 11-AUG-88

INFORMATION TELEPHONE NO.
 (216) 566-2902

 =====
 Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER
 G78 W C112

* - Trade Mark

PRODUCT NAME
 PERMACLAD* 2400 Enamel, White.

PRODUCT CLASS
 Amino-Polyester Enamel

 =====
 Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
1330-20-7	Xylene.	10	100	100	PPM	5.9
64742-95-6	Light Aromatic Naphtha	<5	100		PPM	3.8
64742-94-5	Heavy Aromatic Naphtha	<5	50		PPM	0.1
14464-46-1	Cristobalite	<5	0.05	***	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	35	Not Established			as Dust

*** Refer to OSHA Standard
 (29 CFR 1910.1000, Table Z-3)

 =====
 Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ethyl	VAPOR DENSITY -- heavier than Air		
BOILING RANGE	VOLATILE VOLUME	WT/GAL	VOC (Theoretical)
281-482 F	28.1 %	12.13 lb.	2.04 lb. 244 gm.

 =====
 Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F PMCC LEL 0.7
 Combustible; Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

078 W C112

PERMACLAD* 2400 Enamel, White.

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Page 2

Section V -- HEALTH HAZARD DATA

CONDITIONS OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards**EFFECTS OF OVEREXPOSURE**

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

IF INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and laundry before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

CHRONIC Health Hazards

Crystalline Silica (Quartz, Cristobalite) is listed by IARC. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung disease (silicosis) and possibly cancer.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer; however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

HAZARDOUS POLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

078 W C112

PERMACLAD* 2400 Enamel, White.

page 3

Section VIII -- PROTECTION INFORMATION**PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates, such as titanium dioxide or calcium carbonate (see ACGIH TLV List, Preface and Appendix D), which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust); OSHA PEL 15 mg./m³ (total dust); 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Section IX -- PRECAUTIONS**STORAGE CATEGORY -- 2****PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

PPG PRODUCTS Data Sheet

PC 518 PPG



ALUMINUM EXTRUSION COATINGS / COATINGS AND RESINS DIVISION

PPG Industries, Inc., One PPG Place, Pittsburgh, Pennsylvania 15272

Submitted to: Alumar PPG CODE: UC63087 Date: 12-11-89

Location: Plant City, FL Supersedes: _____

Attention of: Perry Wind Submitted by: T. Kinard

Product: POLYKRON III White Location: East Point

Suggested Use: Finish for extruded aluminum products.

PRODUCT DESCRIPTION

As shipped viscosity: 45 Secs @ Zahn 10 Secs @ 77°F Wt./Gal. 12.22 ± 0.24 lbs

Non-volatiles: 74.5 % by weight 3.0 % by volume 57.5 ± 3.0

Film Characteristics: Color: White Hardness: H-3H Gloss: 65-70 (60°)

Other: _____

LOC A 2.75
LOC B 3.40

SUGGESTED APPLICATION DATA

Substrate: Aluminum Basecoat: None Required

Substrate Preparation: Conversion coating at 30 mg./sq.ft. minimum. Applied per ASTM D1730 67.

Type 2, Section 5 or 7. Processing per ASTM B 449 67, Sec. 5.

APPROXIMATE REDUCTION

REDUCED PRODUCT

Application Method	Type Reducer	Parts Product	Parts Reducer	Application Viscosity	Per Cent Solids
<u>Ransberry</u>	<u>Xylo</u>		<u>As Needed</u>	<u>As Needed</u>	
<u>Turbo-Dip</u>	<u>Solvesso 150</u>				
	<u>Surf Carbitol</u>				
Recommended Dry Film Thickness		<u>1.1-1.3</u> Mils	Recommended Wet Film Thickness		<u>1 1/2 - 2</u> Mils
Theoretical Coverage	<u>922</u> sq. ft./Gal.	<u>1.0</u> Mils Dry	Clean up Solvent		<u>Xylo, Toluol, etc.</u>

CURE SCHEDULES

Bake	Oven	Oven Temp.	Oven Time	Substrate Temp.	Substrate Time at Temp.
<u>RT</u>	<u>RT</u>	<u>350°F</u>	<u>10 min</u>		
				<u>Time and/or temperature may vary based on metal thickness or mass.</u>	
<u>Air Dry</u>	<u>Temperature</u>	<u>Dust Free</u>	<u>Dry to Handle</u>	<u>Sand or Recoat</u>	<u>Pack</u>

Additional Information: Agitate well before use.

OBSERVE ALL LABEL WARNINGS AND PRECAUTIONS.

NOTICE: ALL INFORMATION HEREIN IS BASED UPON THE BEST INFORMATION AND PRACTICES KNOWN TO PPG INDUSTRIES, INC. AT THE TIME OF PREPARATION. THE RESULTS MENTIONED ARE SUGGESTIONS ONLY AND ARE NOT TO BE CONSTRUED AS REPRESENTATIONS OR WARRANTIES. PPG INDUSTRIES, INC. WARRANTS FREEDOM FROM PATENT INFRINGEMENT IN THE USE OF ANY PRODUCT DESCRIBED HEREIN.

MATERIAL SAFETY DATA SHEET
COATINGS AND RESINS GROUP

SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME: PPG INDUSTRIES, INC.
PRODUCT CODE/IDENTITY: UC63087 (020690S)
CUSTOMER PART#/NAME:
PRODUCT TRADE NAME: POLYCRON III PC-5187 WHITE
CHEMICAL FAMILY: POLYESTER MELAMINE

SHIPPING INFORMATION

US-DOT: SHIPPING NAME: PAINT, FLAMMABLE LIQUID
HAZARD CLASS:
UN NUMBER: UN1263

ICAO: NAME: UNAVAILABLE
HAZARD LABEL: UNAVAILABLE

INTERNATIONAL: SHIPPING NAME: UNAVAILABLE
HAZARD CLASS: UNAVAILABLE

SARA 311/312 CATEGORIES FOR THIS PRODUCT
ACUTE=Y CHRONIC=Y FLAM=Y PRESS=N REAC=N

ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE
RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC
SUBSTANCES CONTROL ACT.

PRODUCT SAFETY INFO: 260 KAPPA DRIVE
PITTSBURGH, PA 15238
(412) 963-5822

EMERGENCY MEDICAL INFO: (304) 843-1300
EMERGENCY SPILL INFO: (304) 843-1300
DATE OF MSDS PREPARATION: 2/08/90

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE
WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200),
CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM, THE
SUPPLIER NOTIFICATION REQUIREMENTS OF SARA TITLE III, SECTION 313,
AND OTHER APPLICABLE RIGHT-TO-KNOW REGULATIONS. ABBREVIATIONS
AND OTHER DESIGNATIONS USED ON THIS MATERIAL SAFETY DATA SHEET
INCLUDE THE FOLLOWING:

U/I = UNKNOWN INFORMATION; N/A = NOT APPLICABLE;
NOT ESTAB. = NOT ESTABLISHED; CERT. LTR. = CHEMICAL
O.K. ON TSCA INVENTORY; CAS NO. NOT AVAILABLE

(CUSTOMER NO.) LOCATION : 0811 90UC63087////208

SECTION II - INGREDIENTS

INGREDIENTS	%	OCCUPATIONAL EXPOSURE LIMITS						SARA TITLE III & CERCLA RATING									
		ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-STEL	PPG-IPEL TWA	PPG-IPEL STEL	HS (102)	EHS (302)	TC+ (313)	RQ (LBS)	TPQ (LBS)	SARA 311/312 AC	SARA 311/312 CH	SARA 311/312 FL	SARA 311/312 PR	SARA 311/312 NR
TITANIUM DIOXIDE # ...[13463-67-7]... ACUTE: NO SEVERE HAZARDS IDENTIFIED	40-45	10 mg/m ³	NOT ESTAB	15 mg/m ³	NOT ESTAB	10 mg/m ³	NOT ESTAB	N	N	N	N/A	N/A	N	Y	N	N	N
			ORAL=U/I	DERM=U/I	INHL=U/I	CHRONIC: CARCINOGEN											
MAGNESIUM SILICATE ...[14807-96-6]... ACUTE: NO SEVERE HAZARDS IDENTIFIED	1-2	NOT ESTAB	NOT ESTAB	NOT ESTAB	NOT ESTAB	NOT ESTAB	NOT ESTAB	N	N	N	N/A	N/A	N	N	N	N	N
			ORAL=U/I	DERM=U/I	INHL=U/I	CHRONIC: NO LONG-TERM EFFECTS IDENTIFIED											
HEAVY AROMATIC SOLVENT NAPHTHA ...[64742-94-5]... ACUTE: SKIN IRRITANT	5-10	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	N	N	N	N/A	N/A	Y	N	Y	N	N
			ORAL= 11.84	DERM= 4.45	INHL=U/I	CHRONIC: NO LONG-TERM EFFECTS IDENTIFIED											
LIGHT AROMATIC SOLVENT NAPHTHA ...[64742-95-6]... ACUTE: SKIN IRRITANT	2-5	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	N	N	N	N/A	N/A	Y	N	Y	N	N
			ORAL= 4.70	DERM= 3.48	INHL=U/I	CHRONIC: NO LONG-TERM EFFECTS IDENTIFIED											
XYLENE ...[1330-20-7]... ACUTE: SKIN IRRITANT	5-10	100 ppm	150 ppm	100 ppm	NOT ESTAB	100 ppm	150 ppm	Y	N	Y	1000	N/A	Y	N	Y	N	N
			ORAL= 4.30	DERM=U/I	INHL= 21.71	CHRONIC: NO LONG-TERM EFFECTS IDENTIFIED											
DIETHYLENE GLYCOL MONOBUTYL ETHER ...[112-34-5]... ACUTE: NO SEVERE HAZARDS IDENTIFIED	2-5	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	N	N	Y	N/A	N/A	Y	Y	N	N	N
			ORAL= 5.66	DERM= 4.12	INHL=U/I	CHRONIC: LIVER/KIDNEY/SPLEEN/REPRODUCTIVE/ TOXIN											
ISOBUTYL ALCOHOL ...[78-83-1]... ACUTE: EYE IRRITANT	1-2	50 ppm	NOT ESTAB	100 ppm	NOT ESTAB	50 ppm	NOT ESTAB	Y	N	N	5000	N/A	Y	N	Y	N	N
			ORAL= 2.46	DERM= 4.24	INHL=U/I	CHRONIC: NO LONG-TERM EFFECTS IDENTIFIED											
FILM FORMERS, RESINS, AND ADDITIVES ...[NOT ESTAB.]... ACUTE: SKIN SENSITIZER, SKIN IRRITANT	25-30	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	N	N	N	N/A	N/A	Y	N	N	N	N
			ORAL=U/I	DERM=U/I	INHL=U/I	CHRONIC: NO LONG-TERM EFFECTS IDENTIFIED											

THE FOLLOWING HAZARDOUS MATERIALS ARE COMPONENTS OF ONE OR MORE OF THE ABOVE INGREDIENTS.

GLYCOL ETHERS

2-5 NOT ESTAB. NOT ESTAB. NOT ESTAB. NOT ESTAB. NOT ESTAB. N N Y N/A N/A

**** THIS CHEMICAL CATEGORY IS BEING REPORTED IN ACCORDANCE WITH SARA TITLE III, SECTION 313.

CARCINOGENIC ACCORDING TO CRITERIA ESTABLISHED BY: * = NTP ** = IARC @ = OSHA # = OTHER

ORAL = LD50 ORAL (RAT), (g/kg) DERM = LD50 DERMAL (RABBIT), (g/kg) INHL = LC50 INHALATION (RAT), (Mg/L)

+ INGREDIENTS IN THE TC COLUMN ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III. SEE 40 CFR PART 372.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

[FORMULA VALUES, NOT SALES SPECIFICATIONS]

BOILING RANGE: 56 - 230 DEG. C SOLUBILITY IN WATER: 5.8%
 VAPOR PRESSURE: 6.8mmHg WT/GAL (LBS): 12.21 (U.S.)
 VAPOR DENSITY: HEAVIER THAN AIR pH: U/I
 % VOL/VOLUME: 42.50 % SOLID BY WEIGHT: 74.51
 EVAP RATE(BUOAc=100): 44 SPECIFIC GRAVITY: 1.46
 ODOR/APPEARANCE: VISCOUS LIQUID WITH AN ODOR CHARACTERISTIC OF THE
 SOLVENTS LISTED IN SECTION II.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

US-DOT CATEGORY: FLAMMABLE
 FLASHPOINT: 70 DEG. F PMCC FLAMMABLE LIMITS: LEL 1.3 UEL U/I

EXTINGUISHING MEDIA:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL, OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS B FLAMMABLE LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON HOT SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES.

SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS.

SECTION V - REACTIVITY DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):

AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED. WELDING, BRAZING, OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING:
 Carbon Monoxide, Oxides of Nitrogen, Formaldehyde

SECTION VI - SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP SPILLED MATERIAL WITH SAND, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR DISPOSAL.

WASTE DISPOSAL METHOD:

WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, PROVINCIAL, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILITY.

SECTION VII - HEALTH HAZARD DATA**EFFECTS OF OVEREXPOSURE FROM:****INGESTION:**

- HARMFUL OR FATAL IF SWALLOWED.

EYE CONTACT:

- CAUSES SEVERE EYE IRRITATION.

SKIN CONTACT:

- MAY CAUSE MODERATE SKIN IRRITATION.
 - MAY BE ABSORBED THROUGH THE SKIN.
 - PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.

INHALATION:

- VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED.
 - VAPOR IRRITATES EYES, NOSE, AND THROAT.
 - REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY SYSTEM AND PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE.
 - INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

CHRONIC OVEREXPOSURE:

AVOID LONG TERM AND REPEATED CONTACT.
 - THIS PRODUCT CONTAINS TITANIUM DIOXIDE. ANIMALS INHALING MASSIVE QUANTITIES OF TITANIUM DIOXIDE DUST IN A LONG-TERM STUDY DEVELOPED LUNG TUMORS. STUDIES WITH HUMANS INVOLVED IN MANUFACTURE OF THIS PIGMENT INDICATE NO INCREASED RISK OF CANCER FROM EXPOSURE. POTENTIAL
 CONTINUED ON PAGE 4

FOR INHALATION OF TITANIUM DIOXIDE DUSTS FROM COATINGS IS VERY LIMITED. SINCE OVEREXPOSURES ARE NOT EXPECTED, THERE IS NO SIGNIFICANT HAZARD FOR MAN. THIS PRODUCT CONTAINS DIETHYLENE GLYCOL MONOBUTYL ETHER (DEGBE). DEGBE CONSUMED IN DRINKING WATER AT LOW LEVELS BY RATS FOR 30 DAYS CAUSED INJURY TO EITHER THE LIVER, KIDNEY, SPLEEN, OR TESTES.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

- EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH.
- REDNESS, ITCHING, BURNING SENSATION AND VISUAL DISTURBANCES MAY INDICATE EXCESSIVE EYE CONTACT.
- DRYNESS, ITCHING, CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE

SECTION VIII - FIRST AID PROCEDURES**INGESTION:**

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANER AND SOAP AND WATER.

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. *INGESTION *EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL. * PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.

SECTION IX - PROTECTION INFORMATION**PERSONAL PROTECTIVE EQUIPMENT FOR:****EYE PROTECTION:**

WEAR CHEMICAL-TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF: NITRILE RUBBER, NEOPRENE RUBBER OR POLYVINYL ALCOHOL

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA-APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT:

CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS:

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS**HANDLING AND STORAGE PRECAUTIONS:**

DO NOT STORE ABOVE 120 DEGREES F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NFPA CLASS IB FLAMMABLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE BLENDING AS THE RESULTING MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW INCHES.

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MATERIAL SAFETY DATA SHEET

(CONFORMS TO O.S.H.A. FORM 20)

DATE OF PREPARATION 07-Dec-87

PAGE 1

SECTION I

MANUFACTURER'S NAME: ROCKFORD COATINGS CORPORATION

STREET ADDRESS: 1825 AVE H ST. LOUIS, MO. 63125

EMERGENCY TELEPHONE: 314-544-3600

PRODUCT CLASS:
2

MANUFACTURER'S CODE IDENTIFICATION:
12-6-5281

TRADE NAME:
P.C. 522

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO	BY WEIGHT	TLV PPM	PEL	VAPOR PRESS. MMHG @ 20°C
OLENE	1330-20-7	< 5.0	100	100	5.1 @ 20.
AROMATIC PETROLEUM DISTILLATES	64742-95-6	25.0	100	100	5.0 @ 27.
1-3-PENTANEDIOL	25265-77-4	< 5.0	0	***	1.0 @ 87.
N-BUTYL ALCOHOL	71-36-3	< 5.0	50	50	4.4 @ 20.
*** - PEL NOT ESTABLISHED					

No water

SECTION III - PHYSICAL DATA

BOILING RANGE: 147 - 475 DEG F

VAPOR DENSITY: HEAVIER THAN AIR

PERCENT VOLATILE BY VOLUME: 45 %

WEIGHT PER GALLON: 9.54 LBS

EVAPORATION RATE: SLOWER THAN ETHER

3.33 lb VOC/gal

SECTION V - HEALTH HAZARD DATA CONTINUED

(35)

FLAMMABLE. HARMFUL IF INHALED. CONTAINS ETHYLENE GLYCOL MONO METHYL ETHER ACETATE. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. OVEREXPOSURE MAY CAUSE BLOOD DISORDERS. BASED ON TESTS WITH LABORATORY ANIMALS OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDERS AND BIRTH DEFECTS. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. BEFORE USING READ MATERIAL SAFETY DATA SHEET.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Wear an appropriate properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Do not get in eyes on skin or on clothing. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

FIRST AID: In case of contact immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes. If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

(4-5)

STABILITY: STABLE AT NORMAL ROOM CONDITIONS.

INCOMPATABILITY: AVOID CONTACT WITH STRONG OXIDING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: IF EXPOSED TO EXTREME HEAT PRODUCT MAY FORM CARBON MONOXIDE, CARBON DIOXIDE AND VARIOUS HYDROCARBONS DUE TO INCOMPLETE COMBUSTION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ANY COLLECTION OF SPRAY DUST SUCH AS SWEEPING, FILTERS, DUCTS, ETC.

SECTION VII - SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

SMALL SPILLS - ABSORB WITH AN INERT ABSORBENT.
AVOID BREATHING VAPORS.

LARGE SPILLS - CLEAN UP PERSONNEL SHOULD WEAR PROTECTIVE BREATHING APPARATUS. DIKE SPILL AREA TO PREVENT SPREADING AND PUMP TO SCRAP STORAGE TANK. REMAINING SPILL MAY BE ABSORBED WITH AN INERT ABSORBENT. AS AN ADDED PRECAUTION REMOVE ALL SOURCES OF IGNITION.

WASTE DISPOSAL METHOD:

LIQUIDS MAY BE RECOVERED BY ANY EPA APPROVED METHOD. ALL SLUGES AND CONTAMINATED ABSORBENTS MUST BE DISPOSED OF IN AN EPA APPROVED POSTED TOXIC SUBSTANCES LANDFILL.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND MODE IS ADVISED. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR CHEMICAL AND SOLVENT GLOVES. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

EYE PROTECTION:

USE CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

SKIN PROTECTIVE EQUIPMENT:

NORMAL WORK CLOTHING COVER ARMS AND LEGS. SOLVENT AND CHEMICAL RESISTANT BOOTS SHOULD BE WORN. (SEE YOUR SAFETY EQUIPMENT SUPPLIER)

#90

SECTION IX - SPECIAL PRECAUTIONS

(5-5)

DO NOT STORE ABOVE 100 DEG F. MATERIAL CONTAINS SOME VOLATILE ORGANIC COMPONENTS WHICH ARE COMBUSTIBLE.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE THESE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID AND/OR SOLID) ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED IN THIS DATA SHEET IS BELIEVED TO BE ACCURATE BUT NOT WARRANTED TO BE WHETHER ORIGINATING WITH ROCKEFORD COATINGS CORPORATION, OR NOT, RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.

---LAST PAGE---

Best Available Copy

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

PC-522 POC

Date of Preparation 23-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
12-6-5281

Trade Name:
VB 14 VELVET BLA

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	ZBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Ca
XYLENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A	
PETROLEUM DISTILLATES	64742-94-5	20.0	100.00 ppm	N/A	N/A	N/A Vapor Pressure 3.0 mmHG @ 25.0 Deg C	N/A	
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	< 5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A	
NAPHTHALENE *	91-20-3	< 5.0	10.00 ppm	N/A	15.00 ppm	10.00 ppm Vapor Pressure 1.0 mmHG @ 53.0 Deg C	N/A	
TITANIUM DIOXIDE *	13463-67-7	< 5.0	10.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	
CARBON BLACK	1333-86-4	< 5.0	3.50 mg/cu.m	N/A	N/A	3.50 mg/cu.m	N/A	

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 410 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 45 %

Weight per Gallon: 9.58 Lbs

Evaporation Rate: Slower Than Ether

Continued on Page: 2

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 0.8

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode.

Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation.

Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

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SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. MAY BE FATAL IF INHALED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amounts of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

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Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

=====

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

=====
Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MSHA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

=====
Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

Date of Preparation: 22-Feb-89

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class: PAINT

Manufacturer's Code Identification: 12-6-5290

Trade Name: PC 527 BLACK

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	XBg Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Ca
ETHYLENE * FLAMMABLE HAZARD	1330-20-7	< 5.0	100.00 PPM	N/A	150.00 PPM	100.00 PPM	N/A	
						Vapor Pressure 21.0 mmHG @ 37.8 Deg C		
ISOBUTYL KETONE *	108-10-1	< 5.0	50.00 PPM	N/A	75.00 PPM	100.00 PPM	N/A	
						Vapor Pressure 28.0 mmHG @ 20.0 Deg C		
PETROLEUM DISTILLATES	64742-94-5	25.0	100.00 PPM	N/A	N/A	N/A	N/A	
						Vapor Pressure 3.0 mmHG @ 25.0 Deg C		
XANOL	25265-77-4	< 5.0	N/A	N/A	N/A	N/A	N/A	
						Vapor Pressure 1.0 mmHG @ 87.0 Deg C		
BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	< 5.0	N/A	50.00 PPM	N/A	N/A	100.00 PPM	
						Vapor Pressure 4.4 mmHG @ 20.0 Deg C		

* SARA, Sec. 313 Reportable

Section III - Physical Data

Boiling Range: 243 - 410 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 46%

Weight per Gallon: 9.49 Lbs

Evaporation Rate: Slower Than Ether

3.39 lb-voc/gal

Section IV - Fire and Explosion Hazard Data

UN Category: UN1263

Point: 80 Deg F

FL: 0.8

Extinguishing Media:

Use National Protection Association (NFPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NFPA Class I liquid fires.

Usual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

eyes - Can cause severe irritation, redness, tearing, blurred vision;

skin - Prolonged or repeated contact can cause moderate irritation.

breathing - Excessive inhalation may have results from mild depression to loss of consciousness.

swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. MAY BE FATAL IF INHALED.

Keep away from heat, sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. Consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed get medical attention.

NOTE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA Jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

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M A T E R I A L S A F E T Y D A T A S H E E T

PC-527

(Conforms to U.S.H.A. Form 20)

Date of Preparation 22-Feb-90

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-962-7768

Product Class:
PAINT

Manufacturer's Code Identification:
13-6-5290

Trade Name:
PC 527 BLACK

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	ZBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Car
LENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm	N/A	
						Vapor Pressure 21.0 mmHG @ 37.8 Deg C		
THYL ISOBUTYL KETONE * FLAMMABLE HAZARD	108-10-1	< 5.0	50.00 ppm	N/A	75.00 ppm	50.00 ppm	N/A	
						Vapor Pressure 16.0 mmHG @ 20.0 Deg C		
TROLEUM DISTILLATES	64742-94-5	20.0	100.00 ppm	N/A	N/A	N/A	N/A	
						Vapor Pressure 3.0 mmHG @ 25.0 Deg C		
BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	< 5.0	N/A	50.00 ppm	N/A	50.00 ppm	N/A	
						Vapor Pressure 4.4 mmHG @ 20.0 Deg C		
PTHALENE *	91-20-3	< 5.0	10.00 ppm	N/A	15.00 ppm	10.00 ppm	N/A	
						Vapor Pressure 1.0 mmHG @ 53.0 Deg C		

SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 243 - 410 Deg F
 Vapor Density: Heavier Than Air
 Percent Volatile by Volume: 46 %
 Weight per Gallon: 9.49 Lbs
 Evaporation Rate: Slower Than Ether

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 0.8

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Instal Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

- eyes - Can cause severe irritation, redness, tearing, blurred vision.
- skin - Prolonged or repeated contact can cause moderate irritation.
- breathing - Excessive inhalation may have results from mild depression to loss of consciousness.
- swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES EYE BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. MAY BE FATAL IF INHALED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Avoid contact with eyes. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed get medical attention.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

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Section VI - Reactivity Data
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Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

=====
Section VII - Spill or Leak Procedures
=====

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid) All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Rockford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

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M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

Date of Preparation: 12-Jan-89

Page 1

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 1825 AVE H
ST. LOUIS, MO. 63125

Emergency Telephone: 314-544-3800

Product Class:
PAINT

Manufacturer's Code: ~~12-7-5757~~
12-7-5757

Trade Name:
PC 529 SANDSTONE

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	Qty Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Car
FLAMMABLE HAZARD	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm	N/A	
						Vapor Pressure 5.1 mmHG @ 20.0 Deg C		
MATRIC PETROLEUM DISTILLATES	64742-95-6	10.0	100.00 ppm	N/A	N/A	100.00 ppm	N/A	
						Vapor Pressure 3.0 mmHG @ 27.3 Deg C		
ETHYL ALCOHOL FLAMMABLE HAZARD	71-36-3	10.0	50.00 ppm	50.00 ppm	N/A	50.00 ppm	100.00 ppm	
						Vapor Pressure 4.4 mmHG @ 20.0 Deg C		
ETHYL 3-INDOXYPROPYONATE	763-69-9	< 5.0	N/A	N/A	100.00 ppm	N/A	N/A	
						Vapor Pressure 1.1 mmHG @ 20.0 Deg C		

Section III - Physical Data

Boiling Range: 242 - 410 Deg F

Vapor Density: Heavier than Air

Volatiles by Volume: 31 %

Weight per Gallon: 9.07 lbs

Evaporation Rate: 8 times faster than water

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Section IV - Fire and Explosion Hazard Data

Category: UN1268.

Flash Point: 98 Deg F

LEL: 1.0

Extinguishing Media:

Use National Fire Protection Association (NFPA) Class B
extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed
to extinguish NFPA Class I liquid fires.

Usual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which
may travel along the ground or be moved by ventilation and
cause flash fires or be ignited explosively by pilot lights,
other flames, sparks, heaters, smoking, electric motors, or
other sources of ignition at locations distant from material
point, overspray dust may ignite spontaneously.
Never use welding or cutting torch on or near drum (even empty)
because product (even just residue) can ignite explosively.
Closed containers may explode when exposed to extreme heat, due
to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece
operated in a pressure-demand mode.
Water spray will be effective and should be used to cool closed
containers.

=====
Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

Eyes - Can cause severe irritation, redness, tearing, blurred vision.
Skin - Prolonged or repeated contact can cause moderate irritation.
Breathing - Excessive inhalation may have results from mild
depression to loss of consciousness.
Ingesting - Can cause gastro-intestinal irritation, nausea, vomiting
and diarrhea.

Best Available Copy

SECTION V - HEALTH HAZARD DATA CONTINUED

IRITANT. HARMFUL IF INHALED. CAUSES IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Avoid breathing dust vapors or spray mist. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amounts of water for at least 15 minutes. take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse - do not reuse contaminated shoe. For skin contact - wash affected areas with soap and water. Consult a physician if irritation persists. POISONING: If affected by inhalation of vapor or spray mist remove to fresh air. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. TOXICITY: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Stability: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent. Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section VIII - Special Protection Information

Respiratory Protection:

If TLV of the product or any component is exceeded, a NIOSH/MESA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure demand mode is advised. (See your safety equipment supplier)

Ventilation:

Provide sufficient mechanical exhaust ventilation to maintain exposure below TLV(s).

Protective Gloves:

Wear chemical and solvent gloves. (See your safety equipment supplier)

Eye Protection:

Use chemical splash goggles in compliance with OSHA regulations. (See your safety equipment supplier)

Other Protective Equipment:

Normal work clothing cover arms and legs. Solvent and chemical resistant boots should be worn. (See your safety equipment supplier)

Section IX - Special Precautions

Do not store above 100 Deg. F. Material contains some volatile organic components which are combustible.

Containers of this material may be hazardous when emptied, since these containers retain product residues (vapor, liquid and/or solid). All hazard precautions given in this data sheet must be observed.

The information accumulated in this data sheet is believed to be accurate but not warranted to be whether originating with Reckford Coatings Corporation, or not, recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

M A T E R I A L S A F E T Y D A T A S H E E T

(Conforms to O.S.H.A. Form 20)

PC 529 KOC
Page 1

Date of Preparation 22-Feb-90

Section I

Manufacturer's Name: ROCKFORD COATINGS CORPORATION

Street Address: 208 QUAKER ROAD
ROCKFORD, IL. 61104

Emergency Telephone: 815-963-7768

Product Class: PAINT
Manufacturer's Code Identification: 12-7-5757

Trade Name: PC 529 SANDSTONE

Section II - HAZARDOUS INGREDIENTS

Ingredients	CAS No	ZBy Weight	TWA	TWA Ceiling	STEL	PEL	PEL Ceiling	Ca
XYLENE *	1330-20-7	< 5.0	100.00 ppm	N/A	150.00 ppm	100.00 ppm Vapor Pressure 21.0 mmHG @ 37.8 Deg C	N/A	
PETROLEUM DISTILLATES	64742-94-5	5.0	100.00 ppm	N/A	N/A	N/A Vapor Pressure 3.0 mmHG @ 25.0 Deg C	N/A	
N-BUTYL ALCOHOL * FLAMMABLE HAZARD	71-36-3	5.0	N/A	50.00 ppm	N/A	50.00 ppm Vapor Pressure 4.4 mmHG @ 20.0 Deg C	N/A	
ETHYL beta ETHOXYPROPIONATE	763-69-9	< 5.0	50.00 ppm	N/A	100.00 ppm	N/A Vapor Pressure 1.5 mmHG @ 25.0 Deg C	N/A	
FORMALDEHYDE *	50-00-0	< 1.0	1.00 ppm Peak Exposure 10.00 ppm for 30.00 Minutes	5.00 ppm	2.00 ppm	3.00 ppm	N/A	IA
TITANIUM DIOXIDE *	13463-67-7	15.0	10.00 mg/cu.m	N/A	N/A	15.00 mg/cu.m	N/A	

* SARA, Sec. #313 Reportable

Section III - Physical Data

Boiling Range: 148 - 410 Deg F

Vapor Density: Heavier Than Air

Percent Volatile by Volume: 35 %

Weight per Gallon: 10.27 Lbs

Vaporization Rate: Slower Than Ether

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED.

Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe dust vapors or spray mist. Do not get in eyes on skin or on clothing. Wash thoroughly after handling.

Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amount of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. Consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration, preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerisation: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

Section IV - Fire and Explosion Hazard Data

DOT Category: UN1263

Flash Point: 80 Deg F

LEL: 0.8

Extinguishing Media:

Use National Protection Association (NEPA) Class B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NEPA Class I liquid fires.

Unusual Fire and Explosion Hazards:

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and cause flash fires or be ignited explosively by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other sources of ignition at locations distant from material point, overspray dust may ignite spontaneously. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Closed containers may explode when exposed to extreme heat, due to vapor pressure build up.

Special Fire Fighting Procedures:

Self-contained breathing apparatus with a full facepiece operated in a pressure-demand mode. Water spray will be effective and should be used to cool closed containers.

Section V - Health Hazard Data

Threshold Limit Value: See Section II

Primary Routes of Entry: X Ingestion X Absorption X Inhalation

Effects of Overexposure:

- Eyes - Can cause severe irritation, redness, tearing, blurred vision.
- Skin - Prolonged or repeated contact can cause moderate irritation.
- Breathing - Excessive inhalation may have results from mild depression to loss of consciousness.
- Swallowing - Can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

BEST AVAILABLE COPY

SECTION V - HEALTH HAZARD DATA CONTINUED

FLAMMABLE. CAUSES BURNS. CAUSES IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN. MAY BE FATAL IF SWALLOWED. MAY BE FATAL IF INHALED. Keep away from heat sparks and flame. Vapors may cause flash fire. Use with adequate ventilation. Do not breath dust vapors or spray mist. Do not get in eyes on skin or on clothing. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage absorb with inert material and dispose of in accordance with applicable regulations. FIRST AID: In case of contact immediately flush eyes with large amounts of water for at least 15 minutes. Take to a physician for medical treatment. Remove contaminated clothing and shoes. Wash contaminated clothing prior to reuse-destroy contaminated shoes. For skin contact-wash affected areas with soap and water. consult a physician if irritation persists. POISON! If inhaled remove to fresh air. If not breathing give artificial respiration preferable mouth-to-mouth. If breathing is difficult give oxygen. If swallowed induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Section VI - Reactivity Data

Stability: Stable at normal room conditions.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: If exposed to extreme heat product may form carbon monoxide, carbon dioxide, and various hydrocarbons due to incomplete combustion.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Any collection of spray dust such as sweeping, filters, ducts, etc.

Section VII - Spill or Leak Procedures

Spill or Leak Procedures:

Small spills - Absorb with an inert absorbent
Avoid breathing vapors.

Large spills - Clean up personnel should wear protective breathing apparatus. Dike spill area to prevent spreading and pump to scrap storage tank. Remaining spill may be absorbed with an inert absorbent. As an added precaution remove all sources of ignition.

Waste Disposal Method:

Liquids may be recovered by any EPA approved method. All sludges and contaminated absorbents must be disposed of in an EPA approved posted toxic substances landfill.

BEST AVAILABLE COPY
ENVIRONMENTAL DATA SHEET

S32 JW

THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, Ohio 44115
17-Jan-90

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

PRODUCT: 678 H 030

* - Trade Mark

PERMACLAD[®] 2400 Enamel, Warm Beise. - PC 532

PRODUCT WEIGHT

11.80 lb./gal.

SPECIFIC GRAVITY

1.42

FLASH POINT

105 °F PMCC

HAZARD CATEGORY (for SARA 311/312)

Acute Fire

	SARA 302 EHS	ICERC	SARA 313 TC	Percent by Weight	Percent by Volume
VOLATILE INGREDIENTS					
1330-20-7 Xylene.	N	Y	Y	5	8
64742-95-6 Light Aromatic Naphtha	N	N	N	8	13
64742-94-5 Heavy Aromatic Naphtha	N	N	N	3	5
123-42-2 4-Hydroxy-4-methyl-2-pentanone	N	N	N	1	2

AIR QUALITY DATA

Percent Volatile (= Organic Volatiles)	17.9 by wt.	29.0 by vol
Volatile Organic Compounds (VOC) - Total	2.10 lb./gal.	252 g./l.
VOC per gal. (l.) of Coatings less Water	2.10 lb./gal.	252 g./l.
VOC per gal. (l.) of Solids	2.96 lb./gal.	355 g./l.
Density of Organic Solvent Blend	7.28 lb./gal.	
Photochemically Reactive	YES	

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number.

1

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
(216) 566-2917

DATE OF PREPARATION
17-Jan-90

INFORMATION TELEPHONE NO.
(216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER

678 H C30

* - Trade Mark

PRODUCT NAME

PERMACLAD* 2400 Enamel, Warm Beige.

PRODUCT CLASS

Amino-Polyester Enamel

Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
1330-20-7	Xylene.	<5	100 STEL 150	100 150	PPM PPM	5.9
64742-95-6	Light Aromatic Naphtha	10	100		PPM	3.8
64742-94-5	Heavy Aromatic Naphtha	<5	50		PPM	0.1
123-42-2	4-Hydroxy-4-methyl-2-pentanone	<5	50.0	50.0	PPM	1.2
7631-86-9	Amorphous Silica.	<5	10	6	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	35	10	10(5)	Mg/M3 as Dust ***	

*** Total Dust (Respirable Fraction)

Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 11.79 lb./gal. EVAPORATION RATE -- Slower than Etha
SPECIFIC GRAVITY -- 1.42 VAPOR DENSITY -- Heavier than Air
BOILING RANGE -- 275-415 F MELTING POINT -- N.A.
VOLATILE VOLUME -- 29 % SOLUBILITY IN WATER -- N.A.
VOC (Theoretical) -- 2.10 lb. 252 gm.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F PMCC LEL 0.7

Combustible; Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards**EFFECTS OF OVEREXPOSURE**

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED: Get medical attention.

CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer; however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

HAZARDOUS POLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed 'as Dust' in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Section IX -- PRECAUTIONS

DOL STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding Procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

ENVIRONMENTAL DATA SHEET

533 SW

THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115
 17-Jan-90

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

PRODUCT: 678 R C15

* - Trade Mark

PERMACLAD* 2400 Enamel, Mauve. - PC 533

PRODUCT WEIGHT 9.89 lb./gal. SPECIFIC GRAVITY 1.19 FLASH POINT 105 F FMCC

HAZARD CATEGORY (for SARA 311/312)
 Acute Fire

	SARA 302 EHS	ICERC	SARA 313 TC	Percent by Weight	Percent by Volume
VOLATILE INGREDIENTS					
1330-20-7 Xylene.	N	Y	Y	6	8
64742-95-6 Light Aromatic Naphtha	N	N	N	11	15
64742-94-5 Heavy Aromatic Naphtha	N	N	N	4	6
123-42-2 4-Hydroxy-4-methyl-2-pentanone	N	N	N	2	2

AIR QUALITY DATA

Percent Volatile (= Organic Volatiles) 24.4 by wt. 33.0 by vo
 Volatile Organic Compounds (VOC) - Total 2.40 lb./gal. 287 g./l.
 VOC per gal. (l.) of Coating less Water 2.40 lb./gal. 287 g./l.
 VOC per gal. (l.) of Solids 3.58 lb./gal. 429 g./l.
 Density of Organic Solvent Blend 7.29 lb./gal.
 Photochemically Reactive YES

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number.

G78 R C15

MATERIAL SAFETY DATA SHEET

PC 533

1A

MANUFACTURER'S NAME
 THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
 (216) 566-2917

DATE OF PREPARATION
 17-Jan-90

INFORMATION TELEPHONE NO.
 (216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER * - Trade Mark
 G78 R C15
 PRODUCT NAME
 PERMACLAD* 2400 Enamel, Mauve.
 PRODUCT CLASS
 Amino-Polyester Enamel

Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-FEL	UNITS	V.P.
1330-20-7	Xylene.	5	100	100	PPM	5.9
			STEL 150	150	PPM	
54742-95-5	Light Aromatic Naphtha	10	100		PPM	3.8
54742-94-5	Heavy Aromatic Naphtha	<5	50		PPM	0.1
123-42-2	4-Hydroxy-4-methyl-2-pentanone	<5	50.0	50.0	PPM	1.2
7631-86-9	Amorphous Silica.	5	10	6	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	10	10	10(5)	Mg/M3 as Dust ***	
1309-37-1	Iron Oxide.	<5		10	Mg/M3 as Dust	

*** Total Dust (Respirable Fraction)

Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 9.89 lb./gal. EVAPORATION RATE -- Slower than Ethel
 SPECIFIC GRAVITY -- 1.19 VAPOR DENSITY -- Heavier than Air
 BOILING RANGE -- 178-415 F MELTING POINT -- N.A.
 VOLATILE VOLUME -- 33 % SOLUBILITY IN WATER -- N.A.
 VOC (Theoretical) -- 2.40 lb. 287 gm.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F PMCC LEL 0.7
 Combustible, Flash above 99 and below 200 F
 EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

G7B R C15

PERMACLADK 2400 Enamel, Mauve.

 Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED: Get medical attention.

CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer; however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

 Section VI -- REACTIVITY DATA

STABILITY -- Stable

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

 HAZARDOUS POLYMERIZATION -- Will Not Occur

 Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

 Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed 'as dust' in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

 Section IX -- PRECAUTIONS

BDL STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

ENVIRONMENTAL DATA SHEET

THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115
 17-Jan-90

534 SW

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

PRODUCT: G78 A 039

* - Trade Mark

PERMACLADK 2400 Enamel, Frost Gray.

- PC 534

PRODUCT WEIGHT

11.75 lb./gal.

SPECIFIC GRAVITY

1.41

FLASH POINT:

105 F PMCC

HAZARD CATEGORY (for SARA 311/312)

Acute Fire

SARA 302 EHS	SARA 313 TC	Percent by Weight	Percent by Volume
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VOLATILE INGREDIENTS

1330-20-7	Xylene,	N	Y	Y	3	8
64740-95-6	Light Aromatic Naphtha	N	N	N	8	13
64740-94-8	Heavy Aromatic Naphtha	N	N	N	3	5
123-42-2	4-Hydroxy-4-methyl-2-pentanone	N	N	N	1	2

AIR QUALITY DATA

Percent Volatiles (= Organic Volatiles)	18.0 by wt.	29.0 by vol
Volatile Organic Compounds (VOC) - Total	2.10 lb./gal.	252 g./l.
VOC per gal. (l.) of Coating less Water	2.10 lb./gal.	252 g./l.
Weight Vol. (l.) of Solids	2.95 lb./gal.	355 g./l.
Density of Organic Solvent Blend	7.29 lb./gal.	
Photochemically Reactive	YES	

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number.

MANUFACTURER'S NAME
 THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
 (216) 566-2917

DATE OF PREPARATION
 17-Jan-90

INFORMATION TELEPHONE NO.
 (216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER

* - Trade Mark

G78 A 039

PRODUCT NAME

PERMACLAD[®] 2400 Enamel, Frost Gray.

PRODUCT CLASS

Alcino-Polyester Enamel

Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
1330-20-7	Xylene.	45	100 STEL 150	100 150	PPM	5.9
64740-95-6	Light Aromatic Naphtha	10	100		PPM	3.8
64740-94-5	Heavy Aromatic Naphtha	45	50		PPM	0.1
123-42-2	4-Hydroxy-4-methyl-2-pentanone	45	50.0	50.0	PPM	1.2
7631-86-9	Amorphous Silica.	45	10	6	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	35	10	10(5)	Mg/M3 as Dust	

*** Total Dust (Respirable Fract

Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 11.74 lb./gal. EVAPORATION RATE -- Slower than Et
 SPECIFIC GRAVITY -- 1.41 VAPOR DENSITY -- Heavier than A
 BOILING RANGE -- 275-415 F MELTING POINT -- N.A.
 VOLATILE VOLUME -- 29 % SOLUBILITY IN WATER -- N.A.
 VOC (Theoretical) -- 2.10 lb. 252 sm.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F PHCC LEL 0.7

Combustible; Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

 Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possible death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and laundry before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED: Get medical attention.

CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer; however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

 Section VI -- REACTIVITY DATA

STABILITY -- Stable

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

HAZARDOUS POLYMERIZATION -- Will Not Occur

 Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and local regulations regarding pollution.

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed 'as Dust' in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Section IX -- PRECAUTIONS

HCL STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding Procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

MATERIAL SAFETY DATA SHEET

1

MANUFACTURER'S NAME
 THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
 (216) 566-2917

DATE OF PREPARATION
 9-Sep-89

INFORMATION TELEPHONE NO.
 (216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER
 G78 H C29

* - Trade Mark

PRODUCT NAME
 PERMACLAD* 2400 Enamel, Seaview Beige. *PC 535*

PRODUCT CLASS
 Amino-Polyester Enamel

Section II -- HAZARDOUS INGREDIENTS

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
1330-20-7	Xylene.	<5	100	100	PPM	5.9
			STEL 150	150	PPM	
64742-95-6	Light Aromatic Naphtha	10	100		PPM	3.8
64742-94-5	Heavy Aromatic Naphtha	5	50		PPM	0.1
7631-86-9	Amorphous Silica.	<5	10	6	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	35	10	10(5)	Mg/M3 as Dust ***	

no water *0.08%*

*** Total Dust (Respirable Fraction)

Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 11.81 lb./gal. EVAPORATION RATE -- Slower than Ether
 SPECIFIC GRAVITY -- 1.42 VAPOR DENSITY -- Heavier than Air
 BOILING RANGE -- 178-415 F MELTING POINT -- N.A.
 VOLATILE VOLUME -- 28 % SOLUBILITY IN WATER -- N.A.
 VOC (Theoretical) -- 2.03 lb./gal/243 gm.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F PMCC LEL - 0.7

Combustible; Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

2.82 lb voc / gal Solid

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

ENVIRONMENTAL DATA SHEET

THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115
 9-Sep-89

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

PRODUCT: 078 H 029 * - Trade Mark

PERMACLAD* 2400 Enamel, Seaview Beise. *PC 535*

PRODUCT WEIGHT 11.81 lb./gal. SPECIFIC GRAVITY 1.42 FLASH POINT 105 F FMCC

HAZARD CATEGORY (for SARA 311/312)
 Acute Fire

	SARA 302 EHS	CERC	SARA 313 TC	Percent by Weight	Percent by Value
VOLATILE INGREDIENTS					
1330-20-7 Xylene.	N	Y	Y	2	3
64742-95-6 Light Aromatic Naphtha	N	N	N	8	13
64742-94-5 Heavy Aromatic Naphtha	N	N	N	6	10

AIR QUALITY DATA

Percent Volatile (= Organic Volatiles) 17.3 by wt. 28.0 by vol.
 Volatile Organic Compounds (VOC) - Total 2.03 lb./gal. 243 g./l.
 VOC per gal. (l.) of Coatings less Water 2.03 lb./gal. 243 g./l.
 VOC per gal. (l.) of Solids 2.82 lb./gal. 338 g./l.
 Density of Organic Solvent Blend 7.29 lb./gal.
 Photochemically Reactive YES

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number.

BEST AVAILABLE COPY
ENVIRONMENTAL DATA SHEET

THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.,
Cleveland, Ohio 44115
5-Apr-90

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

PRODUCT: G78 W C129

* - Trade Mark

PERHACLAD* 2400 Enamel, Flex White. **PC 536**

PRODUCT WEIGHT
11.86 lb./gal.

SPECIFIC GRAVITY
1.43

FLASH PCINT
105 F PMCC

HAZARD CATEGORY (for SARA 311/312)

Acute Fire

	SARA 302 EHS	ICERC	SARA 313 TC	Percent by Weight	Percent by Volume
VOLATILE INGREDIENTS					
1330-20-7 Xylene.	N	Y	Y	13	21
64742-94-5 Heavy Aromatic Naphtha	N	N	N	10	15
123-42-2 4-Hydroxy-4-methyl-2-pentanone	N	N	N	2	3

AIR QUALITY DATA

Percent Volatile (= Organic Volatiles)	26.5 by wt.	43.0 by v
Volatile Organic Compounds (VOC) - Total	3.13 lb./gal.	375 g./l.
VOC per gal. (l.) of Coatings less Water	3.13 lb./gal.	375 g./l.
VOC per gal. (l.) of Solids	5.49 lb./gal.	658 g./l.
Density of Organic Solvent Blend	7.29 lb./gal.	
Photochemically Reactive	YES	

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be test for ignitability to determine the applicable EPA hazardous waste number.

MATERIAL SAFETY DATA SHEET

1

MANUFACTURER'S NAME
 THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.
 (216) 566-2917

DATE OF PREPARATION
 5-APR-90

INFORMATION TELEPHONE NO.
 (216) 566-2902

 =====
 Section I -- PRODUCT IDENTIFICATION
 =====

PRODUCT NUMBER
 G78 W C129
 PRODUCT NAME
 PERMACLAD* 2400 Enamel, Flex White.
 PRODUCT CLASS
 Amino-Polyester Enamel

* - Trade Mark

 =====
 Section II -- HAZARDOUS INGREDIENTS
 =====

CAS No.	INGREDIENT	% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
1330-20-7	Xylene.	15	100 STEL 150	100 150	PPH PPH	5.9
64742-94-5	Heavy Aromatic Naphtha	10	50		PPH	0.1
123-42-2	4-Hydroxy-4-methyl-2-pentanone	<5	50.0	50.0	PPH	1.2
7631-86-9	Amorphous Silica.	<5	10	6	Mg/M3 as Dust	
13463-67-7	Titanium Dioxide.	40	10	10(5)	Mg/M3 as Dust *	

*** Total Dust (Respirable Fract

 =====
 Section III -- PHYSICAL DATA
 =====

PRODUCT WEIGHT -- 11.86 lb./gal. EVAPORATION RATE -- Slower than Et
 SPECIFIC GRAVITY -- 1.43 VAPOR DENSITY -- Heavier than
 BOILING RANGE -- 275-415 F MELTING POINT -- N.A.
 VOLATILE VOLUME -- 43 % SOLUBILITY IN WATER -- N.A.
 VOC (Theoretical) -- 3.13 lb. 375 gm.

 =====
 Section IV -- FIRE AND EXPLOSION HAZARD DATA
 =====

FLAMMABILITY CLASSIFICATION FLASH POINT 105 F PMCC LEL 0.8 UEL
 Combustible, Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section V -- HEALTH HAZARD DATA
-----**ROUTES OF EXPOSURE**

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards**EFFECTS OF OVEREXPOSURE**

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED: Get medical attention.

CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

HAZARDOUS POLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES
-----**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

 Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed as Dust Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.9, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

 Section IX -- PRECAUTIONS

IDL STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



(22)
(QC)

SLV # 49

MATERIAL SAFETY DATA SHEET

TEENECO OIL COMPANY
P.O. BOX 2511
HOUSTON, TX 77001

MATERIAL Toluene	
MSDS NO. 310	DATE 8/85

I. MATERIAL IDENTIFICATION		HAZARD RATING*	
MATERIAL / TRADE NAME Toluene	24 HOUR EMERGENCY TELEPHONE TENNECO 504/279-9481 CHEMTREC 800 424-8300	<input type="checkbox"/> 2 HEALTH	
SYNONYMS Toluol, Methyl Benzene, Phenylmethane		<input type="checkbox"/> 3 FIRE	
CHEMICAL FAMILY / FORMULA Aromatic Hydrocarbon/C ₇ H ₈		<input type="checkbox"/> 0 REACTIVITY	
CAS NO. 108-88-3		0 LEAST 3 HIGH	
		1 SLIGHT 4 EXTREME	
		2 MODERATE	* NFPA 704

II. INGREDIENTS		
COMPOSITION	%	TOXICITY DATA
Toluene	99	Human, Inhalation TCLo 200 ppm (Central Nervous System)
Traces of xylene, ethylbenzene, benzene	1	RAT, Inhalation LCLo 4000 ppm/4 hr. RAT, Oral LD50 7.0 g/kg

III. PHYSICAL DATA:	
BOILING POINT, 760mm/Hg - 231°F (110.6°C) IBP	SOLUBILITY IN H ₂ O, % BY WEIGHT - 0.05
SPECIFIC GRAVITY, H ₂ O=1 - 0.87	EVAPORATION RATE, BUTYL ACETATE=1 - 1.9
VAPOR PRESSURE, mm/Hg - 28 @ 25°C	Molecular Weight - 92.13
VAPOR DENSITY, AIR=1 - 3.14	
VOLATILES, % BY VOLUME - 100	
APPEARANCE AND ODOR - Clear colorless liquid with aromatic hydrocarbon odor.	

IV FIRE AND EXPLOSION DATA:		
FLASH POINT AND TEST METHOD 100°F (4.4°C) TCC	AUTO IGNITION TEMPERATURE 997 F (536°C)	FLAMMABILITY LIMITS IN AIR, % BY VOLUME LOWER 1.3 UPPER 7.1
EXTINGUISHING MEDIA Foam, dry chemical, Halon, CO ₂ . Water may not be effective. Water spray (fog) may be used to cool containers. Water stream may splash and spread flaming liquid.		
SPECIAL FIRE FIGHTING PROCEDURES Class IB flammable liquid. Vapors can readily form explosive mixtures with air. Heavier than air vapors can flow along surfaces to distant ignition sources and flash back. Firefighters should use self-contained breathing equipment in enclosed areas.		
ADDITIONAL FIRE AND EXPLOSION HAZARDS Keep away from heat, sources of ignition, oxidizers.		

MSDS NO.

319

MATERIAL

Toluene

V. REACTIVITY DATA

HAZARDOUS POLYMERIZATION

 STABLE UNSTABLE MAY OCCUR WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

Avoid strong oxidizing agents, excessive heat, sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS

Forms carbon monoxide and carbon dioxide during combustion along with thick black smoke.

VI. OCCUPATIONAL EXPOSURE LIMITS

NIOSH TLV 100 ppm 8 hr. TWA (375 mg/m³)
Ceiling 200 ppm, 10 min. (750 mg/m³)

VII. HEALTH INFORMATION

Vapor inhalation can produce headache and slight drowsiness at 100 ppm, and fatigue, nausea, and itching skin at 100-200 ppm. Above 200 ppm anesthetic effects and respiratory and eye irritation can occur.

Skin contact is defatting and can lead to dermatitis upon repeated exposure.

Ingestion hazard exists primarily from possible aspiration into the lungs producing pulmonary edema which can be fatal.

VIII. EMERGENCY AND FIRST AID PROCEDURES

- Skin - Wash with soap and water immediately after contact. Remove contaminated clothing and launder before reuse.
- Eyes - Flush with large amounts of water for 15 minutes, getting under eyelids. Contact physician if irritation persists.
- Inhalation - Remove to fresh air. Restore breathing if necessary. Administer oxygen if breathing difficulty persists and contact physician for advice.
- Ingestion - Do not induce vomiting. Contact physician immediately for treatment.

MSDS NO.

319

MATERIAL

Toluene

IX. EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

Use organic vapor cartridge respirators for exposures over TLV up to 1000 ppm. Supplied air or self-contained breathing equipment recommended for unknown or high concentrations.

PROTECTIVE CLOTHING

Chemical goggles and/or face shield should be worn to protect eyes from splashing. Use neoprene or nitrile gloves and protective clothing to protect from skin contact.

OTHER PROTECTIVE MEASURES

A safety shower and eye wash should be provided in area of use. Ventilation for local and general purpose should be provided to meet TLV requirements.

X. ENVIRONMENTAL PROTECTION

SPILL CLEAN-UP PROCEDURE

Eliminate ignition sources in the area. Contain spill to smallest area possible. Stop spill or leak if safe to do so.

Use absorbent materials to soak up small spills. Recover liquid from larger spills for reuse or disposal.

Do not allow liquid to enter sewers, drains, or waterways.

WASTE DISPOSAL

Waste materials should be disposed of by a licensed solvent disposal company.

Federal, state, and local disposal regulations must be followed.

ENVIRONMENTAL HAZARDS

Aquatic toxicity rating TLM 96 - 100-10 ppm

XI. SPECIAL PRECAUTIONS

Bi-annual medical examinations, including hematology and urine analysis are recommended for employees exposed to Toluene.

Store in close containers in cool well ventilated area.
No smoking allowed in areas of use.

Containers must be electrically bonded or grounded for transfer of liquid.

Explosion-proof electrical equipment required.

MSDS NO. 310 MATERIAL Toluene

II. TRANSPORTATION REQUIREMENTS

SHIPPING NAME. Toluene

DOT I.D. NO. UN 1294

HAZARD CLASSIFICATION. Flammable liquid

UN HAZARD CLASS. UN 1294

MCO Class 3.2

III. OTHER REGULATORY CONTROLS

None determined.

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

Tenneco Oil Company
P. O. Box 2511
Houston, TX 77001
A TENNECO COMPANY

DATE PREPARED August, 1985

APPROVED BY E. Wayne Drusch
Tenneco Oil Processing & Marketing
713/757-3113

MATERIAL SAFETY DATA SHEET

MAY 5 1986



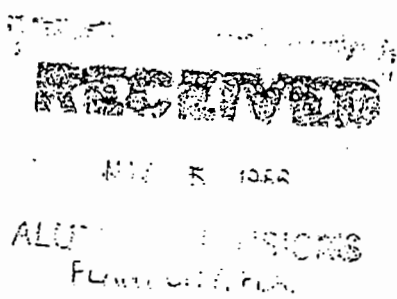
Shell

97002 (REV 1-83)

MSDS NUMBER 7,610-4

ALUMAX PAGE 1 OF 4
PERSONNEL DEPARTMENT

SECTION I		NAME	24 HOUR EMERGENCY ASSISTANCE													
PRODUCT	Shell Xylene		SHELL 713-473-9461	<table border="1"> <tr> <td>HEALTH</td> <td>2</td> </tr> <tr> <td>FIRE</td> <td>3</td> </tr> <tr> <td>REACTIVITY</td> <td>0</td> </tr> </table>	HEALTH	2	FIRE	3	REACTIVITY	0						
HEALTH	2															
FIRE	3															
REACTIVITY	0															
CHEMICAL/SYNONYMS	Xylol; Dimethyl Benzene; Methyl Toluene		CHEMTREC 800-424-9300													
CHEMICAL FAMILY	Aromatic Hydrocarbon		HAZARD RATING													
SHELL CODE	83391	C.A.S. NUMBER	1330-20-7	<table border="0"> <tr> <td>LEAST</td> <td>0</td> <td>SLIGHT</td> <td>1</td> </tr> <tr> <td>MODERATE</td> <td>2</td> <td>HIGH</td> <td>3</td> </tr> <tr> <td></td> <td></td> <td>EXTREME</td> <td>4</td> </tr> </table>	LEAST	0	SLIGHT	1	MODERATE	2	HIGH	3			EXTREME	4
LEAST	0	SLIGHT	1													
MODERATE	2	HIGH	3													
		EXTREME	4													

SECTION II		INGREDIENTS	
COMPOSITION	%	TOXICITY DATA	
Shell Xylene	100	Oral LD ₅₀ (rat) => 5.2 g/kg Dermal LD ₅₀ (rabbit) => 3.95 g/kg Inh LC ₅₀ (rat) = 6,350ppm/(4 hr)	
Xylenes, a mixture of meta-, para- and ortho-xylenes	80		
Ethylbenzene	20		
Benzene typically <10ppm			

SECTION III HEALTH INFORMATION

Acute Toxicity: Overexposure can lead to central nervous system depression producing such effects as headache, dizziness, nausea, and loss of consciousness.

Eye Contact: Short-term liquid or vapor contact may result in slight eye irritation. Prolonged and repeated contact may be more irritating.

Skin Contact: Prolonged and repeated liquid contact can cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Inhalation: High concentrations or prolonged exposure to lower concentrations may be slightly irritating to mucous membranes.

Ingestion: Liquid ingestion may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities in the lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage.

SECTION IV		OCCUPATIONAL EXPOSURE LIMITS	
	Xylene		Ethylbenzene
OSHA-PEL/TWA =	100 ppm		100 ppm
ACGIH-TLV/TWA =	100 ppm (skin)		100 ppm
-TLV/STEL =	150 ppm (skin)		125 ppm

MATERIAL SAFETY DATA SHEET

MSDS NUMBER ▶

7,610-4
PAGE 2 OF 4

97003 (1-81)

SECTION V

EMERGENCY AND FIRST AID PROCEDURES

- CONTACT:** Flush with water for 15 minutes while holding eyelids open. Get medical attention.
- CONTACT:** Wash with soap and water. Remove contaminated clothing and shoes; do not reuse until cleaned. If persistent irritation occurs, get medical attention.
- RESPIRATION:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
- INGESTION:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.
- RECOMMENDATION TO THE PHYSICIAN:** If more than 2.0 ml per kg has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration. If symptoms such as gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.

SECTION VI

PHYSICAL DATA

BOILING POINT (°F) ▶ 281-282	MELTING POINT (°F) ▶ --	VAPOR PRESSURE (mmHg) ▶ 21 @ 100°F
DENSITY (AIR=1) ▶ 0.86	% VOLATILE BY VOLUME ▶ 100	VAPOR DENSITY (AIR=1) ▶ 3.7
SOLUBILITY IN WATER ▶ Negligible	EVAPORATION RATE (BUTYL ACETATE=1) ▶ 0.6	

APPEARANCE AND ODOR

Colorless, mobile liquid. Aromatic odor.

SECTION VII

FIRE AND EXPLOSION HAZARDS

EXTINGUISHING MEDIA	FLAMMABLE LIMITS/% VOLUME IN AIR	LOWER	UPPER
		(TCC)	1

Water fog, foam, dry chemical or CO₂. Do not use a direct stream of water. Product will float and can be reignited on surface of water.

FIRE FIGHTING PROCEDURES AND PRECAUTIONS

Isolate hazard area of unprotected personnel. Wear proper protective clothing including a NIOSH approved self-contained breathing apparatus. Cool fire-exposed containers with water.

In case of large fires, also cool surrounding equipment and structures with water.

FIRE AND EXPLOSION HAZARDS

Product is heavier than air and may accumulate in low areas or areas inadequately ventilated. Vapors may also travel along the ground to be ignited at locations distant from the handling site; flashback of flame to handling site may occur.

MATERIAL SAFETY DATA SHEET

MSDS NUMBER ▶

7,610-4
PAGE 3 OF 4

97004 (10-79)

SECTION VIII

REACTIVITY

FLAMMABILITY ▶

UNSTABLE

STABLE

HAZARDOUS POLYMERIZATION ▶

MAY OCCUR

WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

Avoid heat, sparks, open flame and contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION IX

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

If exposure may or does exceed occupational exposure limits (Sec. IV) use a NIOSH-approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING

Wear impervious gloves and protective clothing as required to prevent skin contact. Wear chemical goggles to prevent eye contact.

ADDITIONAL PROTECTIVE MEASURES

Use explosion-proof ventilation as required to control vapor concentrations.

SECTION X

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

WARNING. Flammable. Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking.

Large spills: Evacuate the hazard area of unprotected personnel. Wear appropriate respirator and protective clothing. Shut off source of leak only if safe to do so. Dike and contain. If vapor cloud forms, water fog may be used to suppress; contain run-off. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; place in non-leaking containers for proper disposal. Flush area with water to remove trace residue; dispose of flush solutions as above.

Small spills: take up with an absorbent material and place in non-leaking containers; seal tightly for proper disposal.

WASTE DISPOSAL

Place in a disposal facility approved under RCRA regulations for hazardous waste (See Sec. XIII). Use non-leaking containers, seal tightly and label properly.

ENVIRONMENTAL HAZARDS

This product is designated as a hazardous substance under the Clean Water Act. KEEP OUT OF SURFACE WATERS OR SEWERS ENTERING OR LEADING TO SURFACE WATERS. (See Section XIII).

MATERIAL SAFETY DATA SHEET

MSDS NUMBER

7,610-4
PAGE 4 OF 4

97005 (REV. 11-84)

SECTION XI SPECIAL PRECAUTIONS

WARNING. Flammable Liquid.
 Stay away from heat, sparks and open flames. Keep containers tightly sealed. Store away from strong oxidizing agents in a cool, dry place with adequate explosion-proof ventilation. Ground equipment to prevent accumulation of static charge. If pouring or transferring materials, containers must be bonded and grounded.

DO NOT weld, heat or drill on or near container; even emptied containers contain explosive vapors.

Minimize skin contact. Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before reuse.

SECTION XII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION	<input type="checkbox"/> FLAMMABLE LIQUID	<input type="checkbox"/> COMBUSTIBLE LIQUID	<input type="checkbox"/> OXIDIZING MATERIAL	<input type="checkbox"/> NON-FLAMMABLE GAS
	<input type="checkbox"/> FLAMMABLE SOLID	<input type="checkbox"/> POISON, CLASS A	<input type="checkbox"/> CORROSIVE MATERIAL	<input type="checkbox"/> NOT HAZARDOUS BY D.O.T. REGULATIONS
	<input type="checkbox"/> FLAMMABLE GAS	<input type="checkbox"/> POISON, CLASS B	<input type="checkbox"/> IRRITATING MATERIAL	<input type="checkbox"/> OTHER—Specify below

PROPER SHIPPING NAME
 None

HAZARD STATEMENT REQUIREMENTS
 UN1307. Guide Sheet 27. RQ xylene (1000 lb). Also Section XIII, Clean Water Act.

SECTION XIII SUPPLEMENTARY HEALTH/REGULATORY INFORMATION

- Clean Water Act (CWA)
 This product is designated as a hazardous substance under Section 311 of the Clean Water Act. Spills entering (a) surface waters or (b) any watercourses or sewers entering/leading to surface waters MUST be reported immediately to the National Response Center, 800-424-8802. The reportable quantity for xylene is 1000 lb.

- Resource Conservation and Recovery Act (RCRA) Regulations
 This product has been designated by the EPA (RCRA 40 CFR 261.33) as a hazardous waste if it is spilled, discarded or intended to be discarded as such. The EPA hazardous waste number for xylene is U239.

Information contained herein is based on data considered reliable. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from their use.

The vendor assumes no responsibility for injury to vendee or third parties proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third parties proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.



John P. Pepin
 Manager

SHELL OIL COMPANY
 PRODUCT SAFETY AND COMPLIANCE
 P.O. BOX 4320
 HOUSTON, TEXAS 77210
 (713) 241-4819

DATE PREPARED
 October 13, 1982

MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-00S-4)

57

Section I

FACTURER'S NAME: UNOCO
 Amsco Division, Union Oil Company of California
 STREET ADDRESS: 3100 South Meacham Road
 CITY, STATE, AND ZIP CODE: Palatine, Illinois 60067
 EMERGENCY TELEPHONE NO.: 708-312-894-2000
 CHEMICAL NAME AND SYNONYMS: Solv. Esso 150
 TRADE NAME: Solv. G. SC 150
 CHEMICAL FAMILY: Aromatic Hydrocarbon Fraction
 FORMULA: Not applicable

Section II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS

PIGMENTS	%	TLV (Units)	SOLVENTS	%	TLV (Units)
CATALYST			ADDITIVES		
OTHERS			OTHERS		

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES

	%	TLV (Units)
Generally classified as "moderately toxic".	100	

Section III - PHYSICAL DATA

BOILING POINT (°F.)	350-410°F.	SPECIFIC GRAVITY (H ₂ O=1)	0.880-1.000
VAPOR PRESSURE (mm Hg.)	0.5 mm Hg @ 68°F	PERCENT VOLATILE BY VOLUME (%)	100%
VAPOR DENSITY (AIR=1)	4.58	EVAPORATION RATE (Toluene=1)	0.02
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	Clear		
	Aromatic		

Section IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): TCC 147°F.
 FLAMMABLE LIMITS: Lel 0.5, Uel 6.0
 EXTINGUISHING MEDIA: Water spray - CO2 - foam - dry chemical
 SPECIAL FIRE FIGHTING PROCEDURES: None
 UNUSUAL FIRE AND EXPLOSION HAZARDS: None

Section V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

200

EFFECTS OF OVEREXPOSURE

Severe eye irritation, drying of skin. Excessive inhalation causes headache, dizziness and nausea.

EMERGENCY AND FIRST AID PROCEDURES

Eye contact: Flush with water. Skin contact: Wash with mild soap and water and apply skin cream. Inhalation: Remove to fresh air and call physician; apply artificial respiration if necessary.

Section VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Heat, sparks, open flame, and fire.

INCOMPATIBILITY (Materials to avoid)

Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may yield carbon monoxide.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

Section VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush with water into retaining area or container. Avoid exposure to sparks, fire or hot metal surfaces.

WASTE DISPOSAL METHOD

Incinerate under safe conditions or dispose of in accordance with local, state and federal regulations.

Section VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Self contained breathing apparatus for concentrations above TLV limit

VENTILATION	LOCAL EXHAUST	Yes	SPECIAL
	MECHANICAL (General)		OTHER

PROTECTIVE GLOVES Yes EYE PROTECTION Yes

OTHER PROTECTIVE EQUIPMENT Eye bath and safety shower.

Section IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep away from heat, sparks and open flame. Use with adequate ventilation. Avoid prolonged or repeated contact with skin.

OTHER PRECAUTIONS

MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: October 30, 1981

I. IDENTIFICATION

PRODUCT NAME:	BUTYL CARBITOL®		
CHEMICAL NAME:	Diethylene Glycol Monobutyl Ether	CHEMICAL FAMILY:	Glycol Ethers
FORMULA:	C ₄ H ₉ O(C ₂ H ₄ O) ₂ H	MOLECULAR WEIGHT:	162.23
SYNONYMS:	Butoxydiethylene Glycol; 2-(β-Butoxyethoxy) ethanol		
DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION	None	
	SHIPPING NAME	None	
CAS #	112-34-5	CAS NAME	Ethanol, 2-(2-butoxyethoxy)-

II. PHYSICAL DATA

BOILING POINT, 760 mm. Hg 101.325 kPa	230.6 °C (447.1 °F)	FREEZING POINT	-68.1 °C (-90.6 °F)
SPECIFIC GRAVITY (H ₂ O = 1)	0.9536 at 20/20 °C	VAPOR PRESSURE at 20 °C.	(0.001 kPa) 0.01 mm Hg
VAPOR DENSITY (air = 1)	5.6	SOLUBILITY IN WATER, % by wt.	Complete
PER CENT VOLATILES BY VOLUME	Nil	EVAPORATION RATE (Butyl Acetate = 1)	<0.01
APPEARANCE AND ODOR	Colorless liquid; mild and characteristic odor.		

III. INGREDIENTS

MATERIAL	%	TLV (Units)	HAZARD
2(2-Butoxyethoxy) ethanol	100	None established	Eye irritant

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT [test method(s)]	214 °F, Tag closed cup ASTM D 56 240 °F, Cleveland open cup ASTM D 92			
FLAMMABLE LIMITS IN AIR, % by volume	LOWER	Not determined (nonvolatile fluid)	UPPER	Not determined (nonvolatile fluid)
EXTINGUISHING MEDIA	Use water spray, carbon dioxide, dry chemical, alcohol-type or universal-type foams applied by manufacturers' recommended technique.			
SPECIAL FIRE FIGHTING PROCEDURES	Use self-contained breathing apparatus and protective clothing.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	Butyl CARBITOL® has a relatively low autoignition temperature: 442 °F (228 °C).			

EMERGENCY PHONE NUMBER

304/744-3487

This number is available days, nights, weekends, and holidays.

While Union Carbide Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Union Carbide Corporation assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and local laws and regulation.

UNION CARBIDE CORPORATION • ETHYLENE OXIDE DERIVATIVES DIVISION

OLD RIDGEWAY ROAD, DANBURY, CT 06817

100
(2-3)

BUTYL CARBITOL®

V. HEALTH HAZARD DATA

TLV AND SOURCE: None established by ACGIH or OSHA.

EFFECTS OF ACUTE OVEREXPOSURE	
SWALLOWING	Slightly toxic. May cause nausea, vomiting, and diarrhea.
SKIN ABSORPTION	None currently known.
INHALATION	None currently known.
SKIN CONTACT	May cause irritation.
EYE CONTACT	Causes severe irritation.
EFFECTS OF CHRONIC OVEREXPOSURE	
Repeated overexposure may result in delayed kidney injury.	
OTHER HEALTH HAZARDS	
None currently known.	
EMERGENCY AND FIRST AID PROCEDURES:	
SWALLOWING	Give two glasses of water and induce vomiting by putting finger down throat.
SKIN	Flush with water.
INHALATION	No emergency care anticipated.
EYES	Flush with water for at least 15 minutes. Get medical attention.

NOTES TO PHYSICIAN

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

VI. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID	None
UNSTABLE	STABLE		
--	✓		
INCOMPATIBILITY (materials to avoid)		Avoid contaminated with high concentrations of alkali at elevated temperatures.	
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS		Burning can produce carbon monoxide and/or carbon dioxide.	
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	None
May Occur	Will not Occur		
--	✓		

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Wear suitable protective equipment. Small spills could be flushed with large quantities of water. Larger spills should be collected for disposal.
WASTE DISPOSAL METHOD	Incinerate in a furnace where permitted under appropriate Federal, State and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)	None required in normal use.		
VENTILATION	General (mechanical) room ventilation is expected to be satisfactory.		
PROTECTIVE GLOVES	Rubber	EYE PROTECTION	Monogoggles
OTHER PROTECTIVE EQUIPMENT	Eye bath and safety shower		

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with eyes.
 Wash thoroughly after handling.

FOR INDUSTRY USE ONLY

OTHER PRECAUTIONS

Laboratory studies indicate that, at very low concentration in water, this product should be rapidly biodegraded in a biological wastewater treatment plant.

CALCULATION OF POUNDS OF VOC PER GALLON OF SOLIDS

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

1) Paint # PC 107 #12-7-5754 1/89

11.44 lb/gal
 72.00 % solids v
 2.48 lb-VOC/gal
 0.00 % H2O
 2.82 lb VOC/gal-solid

2) VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
AROMATIC PETROLEUM DISTILLATE	64742-95-6	100	100	10
N- BUTYL ALCOHOL	71-36-3	50	50	5
ETHYL 3 THOXYPROPIONATE	763-69-9	NA	NA	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

1) Paint # PC 107 #12-7-5754 ROC 2/90

11.44 lb/gal
 72.00 % solids v
 2.95 lb-VOC/gal ✓
 0.00 % H2O
 2.82 lb VOC/gal-solid

2) VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
PETROLEUM DISTILLATE	64742-94-6	100	100	5
N- BUTYL ALCOHOL	71-36-3	50	50	5
ETHYL 3 THOXYPROPIONATE	763-69-9	NA	NA	< 5
FORMALDEHYDE	50-00-0	3	1	< 1
TITANIUM DIOXIDE	1363-67-7	15 MG/M3	15 MG/M3	15

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

1) Paint PC 114 12-7-5764 ROC 3/89

10.29 lb/gal
 68.70 % solids v
 2.20 lb-VOC/gal ✓
 0.00 % H2O
 3.19 lb VOC/gal-solid

2) VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
ETHYL BENZENE	100-41-4	100	100	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	10
ALUMINIUM	7429-90-5	5	NA	< 5
TEXANOL	25265-77-4	++++	++++	< 5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

1) PC 114 # 12-7-5764 ROC 2/90

10.28 lb/gal
 69.00 % solids v
 2.28 lb-VOC/gal ✓
 0.00 % H2O
 3.30 lb VOC/gal-solid

2) VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
TEXANOL	25265-77-4	NA	NA	< 5
ETHYLBENZENE	100-41-4	100	100	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	10
ALUMINIUM	7429-90-5	5	NA	< 5
TITANIUM DIOXIDE	13463-67-7	10 MG/M3	10 MG/M3	10

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

1) Paint PC 117 26W-1000 PREM 5/89

12.64 lb/gal
 65.36 % solids v
 2.54 lb-VOC/gal ✓
 0.00 % H2O
 4.32 lb VOC/gal-solid

2) VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
N-BUTYL ALCOHOL	71-36-3	100	50	3.74
XYLENE	1330-20-7	100	100	2.02
AROMATIC NAPHTHA	64742-94-5	++++	50	10
NAPHTHA	64742-89-8	500	300	< 0.5
ETHYLENEGLYCOLn-BUTYL ETHER	111-76-2	NA	25	0.38
FORMALDHYDE	50-00-0	1	1	0.02
AROMATIC HYDROCARBON	64741-55-5		50	3.02
NAPHTHALENE	91-20-3	10	10	< 0.5
ETHYL ALCOHOL	64-17-5	1000	1000	0.28

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

1) PC 118 26A-1003 PREM 2/90

9.28 lb/gal
 59.72 % solids v
 2.95 lb-VOC/gal
 0.00 % H2O
 5.50 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
N-BUTYL ALCOHOL	71-36-3	100	50	5.92
XYLOL	1330-20-7	100	100	< 3.13
MEDIUM AROMATIC NAPHTHA	6472-94-5	50	50	20
NAPHTHA	64742-89-8	300	300	< 0.5
ETHYLENEGLYCOLn-BUTYL ETHER	111-76-2	NA	25	0.53
FORMALDHYDE	50-00-0	1	1	0.03
AROMATIC HYDROCARBON	64741-53-6	NA	50	4.79
NAPHTHALENE	91-20-3	10	50	< 0.5
ETHYL ALCOHOL	64-17-5	1000	1000	0.33

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

PC 119

25A-1003

PREM 3/90

9.03 lb/gal
 60.03 % solids v
 2.85 lb-VOC/gal ✓
 0.00 % H2O
 5.28 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
N-BUTYL ALCOHOL	71-36-3	100	50	7.79
XYLOL	1330-20-7	100	100	13.6
ETHYLENEGLCOLn-BUTYL ETHER	111-76-2	NA	25	0.49
MEDIUM AROMATIC NAPHTHA	6472-94-5	50	50	< 5
FORMALDHYDE	50-00-0	3	1	0.04
MINERAL SPIRITS	64742-88-7	600	100	< 5
TOLUENE	108-88-3	200	100	0.2
MEDIUM AROMATIC NAPHTHA	64741-98-6	NA	50	< 0.5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint # PC 501 #26N 1000 PREMIER 5/89

10.01 lb/gal
 65.48 % solids v
 2.48 lb-VOC/gal
 0.00 % H2O
 3.79 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
N.BUTYL ALCOHOL	71-36-3	50	50	8.56
XYLOL	1330-20-7	100	100	12.3
ETHYLENEGLCOLn-BUTYL ETHER	111-76-2	NA	25 SKIN	0.38
ETHYL ALCOHOL	64-17-5	1000	1000	0.27

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint # 501 # 12-7-5343 ROC 2/90

10.15 lb/gal
 64.00 % solids v
 2.61 lb-VOC/gal
 0.00 % H2O
 4.08 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	10
N-BUTYL ALCOHOL	71-36-3	50	50	5
ETHYL BENZENE	100-41-4	100	100	< 5
CARBON BLACK	1333-86-4	3.5 MG/M3	3.5 MG/M3	< 5
ALUMINUM	7429-90-5	5 MG/M3	NA	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint # 501 # 12-7-5343 ROC 2/88

9.72 lb/gal
 64.00 % solids v
 2.57 lb-VOC/gal
 0.00 % H2O
 4.02 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	15
1-3-PENTANEDIOL	25265-77-4	++++	0	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	10

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint # 501 UC57204 PPG 5/85

8.91 lb/gal
 58.72 % solids v
 3.00 lb-VOC/gal
 0.00 % H2O
 5.91 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
AROMATIC HYDROCARBON	++++	++++	100	15
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	++++	++++	< 5.00
N-BUTYL ALCOHOL	71-36-3	50	50	< 5.00
ETHYL ALCOHOL	64-17-5	1000	1000	< 5.00
XYLENE	1330-20-7		100	< 5.00
EPOXY RESIN	++++			< 5.00
MINERAL SPIRITS	8032-32-4			< 5.00
2,2,4 TRIMETHYLPENTANEDIOL 1,3 MONOISOBUTYRATE	25265-77-4			< 5.00
1-METHOXY-2-PROPANOL	107-98-2		100	< 0.50
ISOPROPYL ALCOHOL	67-63-0		400	< 0.50

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint # PC 503 #12-7-5389 ROC 2/90

8.95 lb/gal
 58.00 % solids v
 3.06 lb-VOC/gal
 0.00 % H2O
 5.28 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
AROMATIC PETROLEUM DISTILLATES	64742-95-6	100	100	15
CARBON BLACK	1333-86-4	3.5 MG/M3	3.5 MG/M3	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	10
XYLENE	1330-20-7	100	100	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint # PC 503 #12-7-5389 ROC 5/87

8.99 lb/gal
 58.50 % solids v
 3.02 lb-VOC/gal
 0.00 % H2O
 5.16 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
AROMATIC PETROLEUM DISTILLATES	64742-95-6	100	100	15
1-3-PENTANEDIOL	25265-77-4	++++	NA	< 5.00
N-BUTYL ALCOHOL	71-36-3	50	50	10
XYLENE	1330-20-7	100	100	< 5
++++ NOT ESTABLISHED				

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 504 #12-7-5404 ROC 2/90

9.77 lb/gal
 63.00 % solids v
 2.67 lb-VOC/gal
 0.00 % H2O
 4.24 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
AROMATIC PETROLEUM DISTILLATES	64742-95-6	100	100	10
ETHYL BENZENE	100-41-4	100	100	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	5
ALUMINUM	7429-90-5	15 ⁵ MG/M3	15 ^{NA}	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 504 #12-7-5404 ROC 2/88

9.77 lb/gal
 63.00 % solids v
 2.65 lb-VOC/gal
 0.00 % H2O
 4.21 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
AROMATIC PETROLEUM DISTILLATES	64742-95-6	100	100	10
1-3-PENTANDIOL	2565-77-4	++++	NA	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	5
++++ NOT ESTABLISHED				

BEST AVAILABLE COPY

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 509 #12-9-5103 ROC 2/90

11.52 lb/gal
 64.00 % solids v
 2.65 lb-VOC/gal
 0.00 % H2O
 4.14 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
ETHYL BENZENE	100-41-4	100	100	< 5
TITANIUM DIOXIDE	13463-67-7	15 MG/M3	10 MG/M3	30
N-BUTYL ALCOHOL	71-36-3	50	50	< 5
XYLENE	1330-20-7	100	100	10

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 509 #12-9-5103 ROC 2/88

11.55 lb/gal
 58.10 % solids v
 3.01 lb-VOC/gal
 0.00 % H2O
 5.18 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
AROMATIC PETROLEUM DISTILLATES	64742-95-6	100.00	100.00	< 5.00
1-3-PENTANEDIOL	25265-77-4	++++	50.00	5.00
DIETH GLYCOL MONOBUTYL ETHER	112-34-5	++++	++++	< 5.00
N-BUTYL ALCOHOL	71-36-3	50	50	10
XYLENE	1330-20-7	100	100	5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 511 #12-7-5411 ROC 2/90

11.49 lb/gal
 56.00 % solids wt
 3.27 lb-VOC/gal
 0.00 % H2O
 5.84 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
BUTYL CARBITOL	112-34-5	35	+++	< 5
CELLOSOLVE ACETATE	111-15-9	NA	NA	5
N-BUTYL ALCOHOL	71-36-3	50	50	< 5
XYLENE	1330-20-7	100	100	< 5
PETROLEUM DISTILLATES	64742-95-6	NA	50	< 5
FORMALDHYDE	50-00-0	3	1	< 1
TITANIUM DIOXIDE	13463-67-7	15 MG/M3	10 MG/M3	30

+++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 511 #12-7-5411 ROC 4/85

11.59 lb/gal
 57.00 % solids wt
 3.13 lb-VOC/gal
 0.00 % H2O
 5.49 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
C-100/HI SOL 10		1	100	< 5
BUTYL CARBITOL	112-34-5	+++	+++	< 1.5
HEXANOL	111-27-3	0.6	++++	< 5
CELLOSOLVE ACETATE	111-15-9	100	100	10
N-BUTYL ALCOHOL	71-36-3	50	50	< 1.5
C-150/HI SOL 15	++++	1	100	< 5
XYLOL	1330-20-7	1	100	< 5
ETHYL ALCOHOL	64-17-5	1000	1000	< 1.5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 513 # 12-6-5205 ROC 2/90

9.47 lb/gal
 56.00 % solids v
 3.25 lb-VOC/gal
 0.00 % H2O
 5.80 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
ETHOXYETHYL ACETATE	111-15-9	100	NA	10
AROMATIC PETROLEUM DISTILLATE	64742-95-6	100	50	15
BUTYL CARBITOL	112-34-5	35	NA	< 5
N- BUTYL ALCOHOL	71-36-3	50	NA	5
CARBON BLACK	1333-86-4	3.5 MG/M3	3.5 MG/M3	< 5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 513 # 12-6-5205 ROC 2/88

9.37 lb/gal
 56.00 % solids v
 3.20 lb-VOC/gal
 0.00 % H2O
 5.71 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
ETHOXYETHYL ACETATE	111-15-9	100	100	< 5
AROMATIC PETROLEUM DISTILLATE	64742-95-6	100	100	15
BUTYL CARBITOL	112-34-5	+++	+++	< 5
N- BUTYL ALCOHOL	71-36-3	50	50	5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 515 12-4-5204 RDC 2/90

9.69 lb/gal
 55.00 % solids v
 3.31 lb-VOC/gal
 0.00 % H2O
 6.02 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
AROMATIC PETROLEUM DISTILLATE	64742-95-6	NA	50	5
BUTYL CARBITOL	112-34-5	35	++++	< 5
N- BUTYL ALCOHOL	71-36-3	50	NA	10
ETHYL BENZENE	100-41-4	100	100	< 5
S-BUTYL ALCOHOL	78-92-2	150	100	< 5
FORMALDHYDE	50-00-0	3	1	< 1
LEAD	7439-92-1	+++	0.15 MG/M3	< 5
CHROMIUM IV OXIDE	13463-67-7	+++	0.05 MG/M3	< 5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 515 12-4-5204 ROC 2/88

9.69 lb/gal
 55.00 % solids v
 3.31 lb-VOC/gal
 0.00 % H2O
 6.02 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
1-3-PENTANEDIOL	25265-77-4	++++	++++	5
AROMATIC PETROLEUM DISTILLATE	64742-95-6	100	100	5
BUTYL CARBITOL	112-34-5	++++	++++	< 5
N- BUTYL ALCOHOL	71-36-3	50	50	10

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 51B # 678 W C112 SW 8/88

12.13 lb/gal
 71.90 % solids v
 2.00 lb-VOC/gal
 0.00 % H2O
 2.78 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
LIGHT AROMATIC NAPHTHA	6472-95-6	100	100	5
HEAVY AROMATIC NAPHTHA	6472-94-5	50	50	5
CRISTOBALITE	14464-46-1	++++	0.05	< 5
TITANIUM DIOXIDE	13463-67-7	++++	++++	35

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 518 # 678 W C112 SW 8/88

12.13 lb/gal
 71.90 % solids v
 2.04 lb-VOC/gal
 0.00 % H2O
 2.84 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
ETHYLBENZENE	100-41-4	100	100	0.39
XYLENE	1330-20-7	100	100	7.54
LIGHT AROMATIC NAPHTHA	6472-95-6	100	100	1.83
HEAVY AROMATIC NAPHTHA	6472-94-5	50	50	4.50
2-PROPANOL	67-63-0	NA	NA	0.32
2-METHYL-1-PROPANOL	78-83-1	NA	NA	0.03
METHYL ETHYL KETONE	78-93-3	NA	NA	0.34
METHYL ISOBUTYL KETONE	108-10-1	NA	NA	0.34
2-(2-BUTOXYETHOXY)ETHYL ACETATE	124-17-4	NA	NA	1.34
1-METHOXY-2-PROPANOL ACETATE	108-65-6	NA	NA	0.02
DIMETHYLAMINE	124-40-3	NA	NA	0.05
WATER	7732-18-5	NA	NA	0.07
CRISTOBALITE	14464-46-1	++++	0.05	< 5
TITANIUM DIOXIDE	13463-67-7	NA	NA	35

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 518 # 678-W C92 SW 6/88

12.75 lb/gal
 72.00 % solids v
 2.02 lb-VOC/gal
 0.07 % H2O
 2.81 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
LIGHT AROMATIC NAPHTHA	64742-95-6	100	100	5
HEAVY AROMATIC NAPHTHA	64742-94-5	50	50	5
TITANIUM DIOXIDE	3463-67-7	10	10 MG/M3	45

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 518 # 678-W C127 SW 3/90

11.71 lb/gal
 78.40 % solids v
 2.52 lb-VOC/gal
 0.07 % H2O
 3.87 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	10
LIGHT AROMATIC NAPHTHA	64742-95-6	++++	100	10
HEAVY AROMATIC NAPHTHA	64742-94-5	++++	50	< 5
AMPHOROUS SILICA	7631-86-9	6	10	< 5
TITANIUM DIOXIDE	13463-67-7	10	10	35

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 518 # 247-104 LILLY 7/89

12.10 lb/gal
 66.00 % solids v
 2.40 lb-VOC/gal
 0.00 % H2O
 3.64 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
EXXATE 600	88230-35-7	++++	5	3.3
AROMATIC NAPHTHA	64742-94-5	++++	100	2.21
N-BUTANDL	71-36-3	100	50	1.72
XYLENE	1330-20-7	100	100	7.11
METHYL ETHYL KETONE	78-93-3	200	200	1.38

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 518 UC63087 PPG 6/88

12.21 lb/gal
 57.50 % solids v
 3.10 lb-VOC/gal
 0.00 % H2O
 5.39 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
TITANIUM DIOXIDE	13463-67-7	15	10	40-45
MAGNESIUM SILICATE	14807-96-6	++++	++++	1-2
HEAVY AROMATIC NAPHTHA	64742-94-5	++++	++++	5-10
LIGHT AROMATIC NAPHTHA	64742-95-6	++++	++++	2-5
XYLENE	1330-20-7	100	100	5-10
DIETHYLENE GLYCOL MONBUTYL ETHER	112-34-5	++++	++++	2-5
ISOBUTYL ALCOHOL	78-83-1	50	50	1-2

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 522 12-6-5281 ROC 2/90

9.58 lb/gal
 55.00 % solids v
 3.40 lb-VOC/gal
 0.00 % H2O
 6.18 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
PETROLEUM DISTILLATE	64742-94-6	NA	100	20
N-BUTYL ALCOHOL	71-36-3	50	NA	< 5
NAPHTHALENE	91-20-3	10	10	< 5
TITANIUM DIOXIDE	13463-67-7	15 MG/M3	10 MG/M3	< 5
CARBON BLACK	1333-86-4	3.5 MG/M3	3.5 MG/M3	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 522 12-6-5281 ROC 12/87

9.54 lb/gal
 55.00 % solids v
 3.33 lb-VOC/gal
 0.00 % H2O
 6.05 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
AROMATIC PETROLEUM DISTILLATE	64742-95-6	100	100	25
1-3-PENTANEDIOL	25265-77-4	++++	0	< 5
N-BUTYL ALCOHOL	71-36-3	50	50	< 5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

PC 527 # 12-6-5290 RDC 2/90

9.49 lb/gal
 54.00 % solids v
 3.46 lb-VOC/gal
 0.00 % H2O
 6.41 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	Z wt
XYLENE	1330-20-7	100	100	< 5
METHYL ISOBUTYL KETONE	108-10-1	50	50	< 5
PETROLEUM DISTILLATES	64742-94-5	NA	100	20
N-BUTYL ALCOHOL	71-36-3	50	NA	< 5
NAPHTHALENE	91-20-3	10	10	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 527 # 12-6-5290 RDC 2/89

9.49 lb/gal
 54.00 % solids v
 3.39 lb-VOC/gal
 0.00 % H2O
 6.28 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	Z wt
XYLENE	1330-20-7	100	100	< 5
METHYL ISOBUTYL KETONE	108-10-1	100	50	< 5
PETROLEUM DISTILLATES	64742-94-5	NA	100	25
TEXANOL	25265-77-4	NA	NA	< 5
N-BUTYL ALCOHOL	71-36-3	NA	NA	< 5

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 529 # 12-7-5757 ROC 2/90

10.27 lb/gal
 65.00 % solids v
 2.62 lb-VOC/gal
 0.00 % H2O
 4.03 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
PETROLEUM DISTILLATE	64742-94-6	NA	100	5
N-BUTYL ALCOHOL	71-36-3	50	NA	5
ETHYL 3 THROXYPROPIONATE	763-69-9	NA	50	< 5
FORMALDHYDE	50-00-0	3	1	< 1
TITANIUM DIOXIDE	13463-67-7	15 MG/M3	10 MG/M3	15

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 529 # 12-7-5757 ROC 1/89

10.07 lb/gal
 69.00 % solids v
 2.68 lb-VOC/gal
 0.00 % H2O
 3.88 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
AROMATIC PETROLEUM DISTILLATE	64742-95-6	100	100	10
N-BUTYL ALCOHOL	71-36-3	50	50	10
ETHYL 3 THROXYPROPIONATE	763-69-9	NA	NA	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 532 678-H-D30 SW 1/90

11.79 lb/gal
 71.00 % solids v
 2.10 lb-VOC/gal
 0.00 % H2O
 2.96 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
LIGHT AROMATIC NAPHTHA	64742-95-6	150	100	10
HEAVY AROMATIC NAPATHA	64742-94-5	++++	50	< 5
4-HYDROXY-4-METHYL-2-PENTANONE	123-42-2	50	50	< 5
AMORPHOUS SILICA	7631-86-9	6	10 MG/M3	< 5
TITANIUM DIOXIDE	13463-67-7	10	10 MG/M3	35

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 533 678 R C15 SW 1/90

9.88 lb/gal
 33.00 % solids v
 2.40 lb-VOC/gal
 0.00 % H2O
 3.58 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	5
LIGHT AROMATIC	64742-95-6	150	100	10
HEAVY AROMATIC NAPATHA	64742-94-5	***	50	< 5
4-HYDROXY-4-METHYL-2-PENTANONE	123-42-2	50	50	< 5
AMORPHOUS SILICA	7631-86-9	6	10 MG/M3	5
TITANIUM DIOXIDE	13463-67-7	10	10 MG/M3	10
IRON OXIDE	1309-37-1	10	++++	< 5

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 534 678 A 039 SW 1/90

11.74 lb/gal
 71.00 % solids v
 2.10 lb-VOC/gal
 0.00 % H2O
 2.96 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
LIGHT AROMATIC	64742-95-6	NA	100	10
HEAVY AROMATIC NAPATHA	64742-94-5	NA	50	< 5
4-HYDROXY-4-METHYL-2-PENTANONE	123-42-2	++++	50	< 5
AMORPHOUS SILICA	7631-86-9	6	10 MG/M3	< 5
TITANIUM DIOXIDE	13463-67-7	10	10 MG/M3	35

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 535 DLD-2562-678 SW 9/89

11.81 lb/gal
 72.00 % solids v
 2.03 lb-VOC/gal
 0.08 % H2O
 2.82 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	< 5
LIGHT AEROMATIC	64742-95-6	NA	100	10
HEAVY AEROMATIC NAPATHA	64742-94-5	NA	50	5
AMORPHOUS SILICA	7631-86-9	6	10 MG/M3	< 5
TITANIUM DIOXIDE	13463-67-7	10	10 MG/M3	35

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

Paint PC 536 678 W C129 SW 5/90

11.86 lb/gal
 57.00 % solids v
 3.13 lb-VOC/gal
 0.00 % H2O
 5.49 lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	15
HEAVY AROMATIC NAPATHA	64742-94-5	++++	50	10
4-HYDROXY-4-METHYL-2-PENTANONE	123-42-2	50	50	< 5
AMORPHOUS SILICA	7631-86-9	6	10 MG/M3	< 5
TITANIUM DIOXIDE	13463-67-7	10	10 MG/M3	40

++++ NOT ESTABLISHED

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

TOLUENE TENNCO OIL COMPANY 8/85

7.30 lb/gal
 0 % solids v
 7.30 lb-VOC/gal
 0.00 % H2O
 NA lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
TOLUENE	108-88-3	+++	100	99
XYLENE	1330-20-7	100	100	< 1
ETHYLBENZENE	100-41-4	1000	100	< 1
BENZENE	71-43-2	8	1	< 1

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

XYLENE SHELL 5/86

7.20 lb/gal
 0.00 % solids wt
 7.20 lb-VOC/gal
 0.00 % H2O
 NA lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
XYLENE	1330-20-7	100	100	80
ETHYLBENZENE	100-41-4	100	100	20
BENZENE	71-43-2	8	1	< 1

LISTING OF ALUMAX'S PAINTS AND SOLVENTS

BUTYL CARBITOL

10/81

8.00 lb/gal
100 % solids wt
0.00 lb-VOC/gal
0.00 % H2O
NA lb VOC/gal-solid

VOC :

Name	CAS#	PEL (PPM)	TLV (PPM)	% wt
BUTYL CARBITOL (DIETHYLENE GLYCOL MONOBUTYLETHER)	112-34-5	+++	+++	100

PAINT USAGE SEPTEMBER 1989 TO MAY 1990

ALUMAX PAINT CONSUMPTION

PAINT and MANUFACTURER:	8/24/89 - 2/26/90			2/27/90 - 5/25/90			TOTALS FOR PAINT TYPE	PER CENT OF TOTAL
	V	H	T	V	H	T		
501 ROCK	3697	2431	6128	1550	750	2300	8428	14.96
501 PREM	18525	150	18675				18675	33.15
501 PPG	605		605				605	1.07
503 ROCK	200		200	200		200	400	0.71
509 ROCK	150		150	50		50	200	0.35
518 SW	5129		5129	3516	179	3695	8824	15.66
518 LILLY	11943	250	12193	3650	250	3900	16093	28.56
518 PPG	550		550	1760		1760	2310	4.10
535 SW	25		25				25	0.04
527 ROCK	42		42				42	0.07
117 PREM	200		200				200	0.35
532 SW	33		33				33	0.06
533 SW				27		27	27	0.05
118 PREM				52		52	52	0.09
119 PREM				393		393	393	0.70
534 SW	33	0	33				33	0.06
TOTALS	41132	2831	43963	11198	1179	12377		100.00

TOTAL GALLONS USED -> 56340
8-24-89 TO 5-25-90

AVERAGING OF EMISSION POINTS' CHARACTERISTICS

ALUMAX

AVERAGING OF EMISSION POINTS

VERTICAL PAINT LINE

SOURCE	FLOW (ACFM)	TEMP (oF)	DIAMETER (FT)	VELOCITY (FPM)	HEIGHT (FT)	FLOW %
BOOTH 1	13961	70	3	1975	70	0.359680
BOOTH 2	13961	70	3	1975	74	0.359680
FORCED FLASH OFF	0	70	3	0	64	0
BAKE OVEN	10893	375	2.2	2866	71	0.280638
ONE POINT SOURCE	38815	156	4.7	2225	72	1.000000

HORIZONTAL PAINT LINE

SOURCE	FLOW (ACFM)	TEMP (oF)	DIAMETER (FT)	VELOCITY (FPM)	HEIGHT (FT)	FLOW %
AUTO BOOTH 1	16800	70	3.17	2129	28	0.457640
AUTO BOOTH 2	16800	70	3.17	2129	33	0.457640
BAKE OVEN 2ND ZONE	1505	306	1	1916	33	0.040997
BAKE OVEN 3RD ZONE	1605	160	1.5	908	27	0.043721
ONE POINT SOURCE	36710	84	4.8	2067	30	1.000000
VPL+HPL	75525	121	6.7	2146	30	

SCREEN MODEL RESULTS

*** SCREEN-1.1 MODEL RUN ***

*** DRAFT VERSION XXXXX ***

VPL PER 3/15/90

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
 EMISSION RATE (G/S) = 15.11
 STACK HEIGHT (M) = 21.95
 STK INSIDE DIAM (M) = 1.43
 STK EXIT VELOCITY (M/S) = 11.37
 STK GAS EXIT TEMP (K) = 342.00
 AMBIENT AIR TEMP (K) = 294.00
 RECEPTOR HEIGHT (M) = .00
 IOPT (1=URB,2=RUR) = 2
 BUILDING HEIGHT (M) = 19.80
 MIN HORIZ BLDG DIM (M) = 40.00
 MAX HORIZ BLDG DIM (M) = 57.00

BUOY. FLUX = 8.00 M**4/S**3; MOM. FLUX = 56.81 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
10.	.0000	0	.0	.0	.0	.0	.0	.0	NA
100.	3294.	6	4.0	6.2	5000.0	22.6	4.1	13.1	SS
200.	2294.	6	4.0	6.2	5000.0	24.5	7.7	18.8	SS
300.	1349.	6	4.0	6.2	5000.0	27.2	11.2	19.5	SS
400.	940.5	6	4.0	6.2	5000.0	29.1	14.6	20.3	SS
500.	809.0	6	3.0	4.6	5000.0	31.7	18.0	19.8	SS
600.	721.5	6	3.0	4.6	5000.0	31.7	21.2	20.5	SS

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:

60.	3648.	6	4.0	6.2	5000.0	22.2	2.6	11.0	SS
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DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X(3=LB

*** SCREEN DISCRETE DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
60.	3648.	6	4.0	6.2	5000.0	22.2	2.5	11.0	SS
50.	.0000	0	.0	.0	.0	.0	.0	.0	NA
55.	.0000	0	.0	.0	.0	.0	.0	.0	NA

70. 3568. 6 4.0 6.2 5000.0 22.5 2.9 11.9 55
 80. 3483. 6 4.0 6.2 5000.0 22.4 3.3 12.1 55

BEST AVAILABLE COPY

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X(3*LB

*** CAVITY CALCULATION - 1 ***	*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = 1202.	CONC (UG/M**3) = 1272.
CRIT WS @10M (M/S) = 12.69	CRIT WS @10M (M/S) = 18.70
CRIT WS @ HS (M/S) = 14.85	CRIT WS @ HS (M/S) = 21.89
DILUTION WS (M/S) = 7.43	DILUTION WS (M/S) = 10.00
CAVITY HT (M) = 22.09	CAVITY HT (M) = 20.55
CAVITY LENGTH (M) = 58.00	CAVITY LENGTH (M) = 46.51
ALONGWIND DIM (M) = 40.00	ALONGWIND DIM (M) = 57.00

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	3648.	60.	0.
BUILDING CAVITY-1	1202.	58.	-- (DIST = CAVITY LENGTH)
BUILDING CAVITY-2	1272.	47.	-- (DIST = CAVITY LENGTH)

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

*** SCREEN-1.1 MODEL RUN ***
*** DRAFT VERSION XXXXX ***

HPL 30

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = 15.11
STACK HEIGHT (M) = 9.14
STK INSIDE DIAM (M) = 1.46
STK EXIT VELOCITY (M/S) = 10.31
STK GAS EXIT TEMP (K) = 302.00
AMBIENT AIR TEMP (K) = 294.00
RECEPTOR HEIGHT (M) = .00
IOPT (1=URB,2=RUR) = 2
BUILDING HEIGHT (M) = 7.62
MIN HORIZ BLDG DIM (M) = 57.00
MAX HORIZ BLDG DIM (M) = 69.00

BUOY. FLUX = 1.43 M**4/S**3; MOM. FLUX = 55.14 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	U10M STAB	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
10.	.0000	0	.0	.0	.0	.0	.0	NA
100.	4011.	4	8.0	8.0	2560.0	9.9	8.2	SS
200.	2828.	4	5.0	5.0	1600.0	12.4	15.6	SS
300.	2081.	4	5.0	5.0	1600.0	12.4	22.6	SS
400.	1645.	4	4.0	4.0	1280.0	15.0	29.5	SS
500.	1316.	4	3.0	3.0	960.0	20.2	36.1	SS
600.	1123.	4	3.0	3.0	960.0	20.2	42.7	SS

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:

50.	4453.	4	10.0	10.0	3200.0	9.3	4.4	5.3	SS
-----	-------	---	------	------	--------	-----	-----	-----	----

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X(3*LB

*** SCREEN DISCRETE DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	U10M STAB	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH	
50.	4453.	4	10.0	10.0	3200.0	9.3	4.3	5.3	SS
49.	4453.	4	10.0	10.0	3200.0	9.3	4.2	5.2	SS
45.	4435.	4	10.0	10.0	3200.0	9.3	3.9	5.0	SS
40.	4275.	4	10.0	10.0	3200.0	9.3	3.5	4.8	SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** CAVITY CALCULATION - 1 *** *** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = 2116. CONC (UG/M**3) = 2562.
CRIT WS @10M (M/S) = 18.11 CRIT WS @10M (M/S) = 18.11
CRIT WS @ HS (M/S) = 18.11 CRIT WS @ HS (M/S) = 18.11
DILUTION WS (M/S) = 9.05 DILUTION WS (M/S) = 9.05
CAVITY HT (M) = 7.62 CAVITY HT (M) = 7.62
CAVITY LENGTH (M) = 37.00 CAVITY LENGTH (M) = 34.76
ALONGWIND DIM (M) = 57.00 ALONGWIND DIM (M) = 69.00

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	4453.	50.	0.
BUILDING CAVITY-1	2116.	37.	-- (DIST = CAVITY LENGTH)
BUILDING CAVITY-2	2562.	35.	-- (DIST = CAVITY LENGTH)

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

SUMMARY OF MODELING RESULTS

ALUMAX PAINTLINES
RESULTS OF SCREEN MODELING

6/26/90

	MAX 1 HOUR & LOCATION		MAXIMUM SCALED CONCENTRATIONS (UG/M3)		
	(UG/M3)	(M)	8 HR	24 HR	ANNUAL
VERTICAL PAINTLINE:					
12 GPM (120 LBS/HR)	3648	60	2554	1459	365
20 GPM (200 LBS/HR)	6080	60	4256	2432	608
HORIZONTAL PAINTLINE:					
12 GPM (120 LBS/HR)	4453	50	3117	1781	445

FDER'S NO-THREAT LEVELS

VOC COMPOUNDS	CAS #	FLORIDA DER NO THREAT LEVELS (UG/M3)		
		8 HR	24 HR	ANNUAL
BENZENE	71-43-2	30	7.1	0.12
BUTYL CARBITOL (DIETHYLENE GLYCOL MONOBUTYLETHER)	112-34-5			
C-100/HI SOL 10	+++			
C-150/HI SOL 15	+++			
CELLOSOLVE ACETATE (ETHOXYETHYL ACETATE)	111-15-9	276	64	
ETHYL 3 THOXYPROPIONATE	763-69-9			
ETHYL ALCOHOL	64-17-5	38000	9048	
ETHYLBENZENE	100-41-4	4350	1036	
ETHYLENEGLYCOL-n-BUTYL ETHER (2-BUTOXYETHANOL)	111-76-2	1200	286	
EXXATE 600	88230-35-7			
FORMALDHYDE	50-00-0			0.08
HEXANOL	+++			
METHYL ETHYL KETONE	78-93-3	5900	1405	80
METHYL ISOBUTYL KETONE	108-10-1	2050	488	
NAPHTHALENE	91-20-3	500	119	
LIGHT AROMATIC NAPHTHA (AROMATIC PETROL. DISTIL.)	64742-95-6			
HEAVY AROMATIC NAPHTHA (AROMATIC NAPHTHA)	64742-94-5			
N-BUTYL ALCOHOL	71-36-3			
1-3-PENTANEDIOL	25265-77-4			
S-BUTYL ALCOHOL	78-92-2			
SC 150	+++			
TOLUENE	108-88-3			2000
TEXANOL	25265-77-4			
XYLENE (XYLOL)	1330-20-7			
SOLID COMPOUNDS	CAS #			
ALUMINUM	7429-90-5			
AMORPHOUS SILICA	7631-86-9	60	14	
CARBON BLACK	1333-86-4	35	8.3	
CHROMIUM VI OXIDE	1333-87-0	0.5	0.12	
CRISTOBALITE	14464-46-1			
LEAD	7439-92-1	1.5	0.36	0.09
TITANIUM DIOXIDE	13463-67-7			

CALCULATION OF MAXIMUM PAINT COMPOUNDS

MAXIMUM PERCENTAGES ALUMAX PAINT COMPOUNDS 6/26/90
 VERTICAL PAINT LINE AT 12 GPM SPRAYING

VOC COMPOUNDS	CAS #	CALCULATED MAXIMUM PERCENTAGES (%)		
		8 HR	24 HR	ANNUAL
BENZENE	71-43-2	1.2	0.5	0.03
BUTYL CARBITOL (DIETHYLENE GLYCOL MONOBUTYLETHER	112-34-5			
C-100/HI SOL 10	+++			
C-150/HI SOL 15	+++			
CELLOSOLVE ACETATE (ETHOXYETHYL ACETATE)	111-15-9	10.8	4.4	
ETHYL 3 THOXYPROPIONATE	763-69-9			
ETHYL ALCOHOL	64-17-5	1488.1	620.1	
ETHYLBENZENE	100-41-4	170.3	71.0	
ETHYLENEGLYCOL _n -BUTYL ETHER (2-BUTOXYETHANOL)	111-76-2	47.0	19.6	
EXXATE 600	88230-35-7			
FORMALDHYDE	50-00-0			0.02
HEXANOL	+++			
METHYL ETHYL KETONE	78-93-3	231.0	96.3	21.93
METHYL ISOBUTYL KETONE	108-10-1	80.3	33.4	
NAPHTHALENE	91-20-3	19.6	8.2	
LIGHT AROMATIC NAPHTHA (AROMATIC PETROL. DISTIL.)	64742-95-6			
HEAVY AROMATIC NAPHTHA (AROMATIC NAPHTHA)	64742-94-5			
N-BUTYL ALCOHOL	71-36-3			
1-3-PENTANEDIOL	25265-77-4			
S-BUTYL ALCOHOL	78-92-2			
SC 150	+++			
TOLUENE	108-88-3			548.25
TEXANOL	25265-77-4			
XYLENE (XYLOL)	1330-20-7			

SOLID COMPOUNDS	CAS #	8 HR	24 HR	ANNUAL
ALUMINUM	7429-90-5			
AMORPHOUS SILICA	7631-86-9	2349.62	959.43	
CARBON BLACK	1333-86-4	1370.61	568.80	
CHROMIUM VI. OXIDE	1333-87-0	19.58	8.22	
CRISTOBALITE	14464-46-1			
LEAD	7439-92-1	58.74	24.67	24.67
TITANIUM DIOXIDE	13463-67-7			

NOTE: ASSUME FOR SOLIDS A 10% OVERSPRAY AND 99% REMOVAL EFFICIENCY

MAXIMUM PERCENTAGES ALUMAX PAINT COMPOUNDS 6/26/90
 VERTICAL PAINTLINE AT 20 GPM SPRAYING

VOC COMPOUNDS	CAS #	CALCULATED MAXIMUM PERCENTAGES (%)		
		8 HR	24 HR	ANNUAL
BENZENE	71-43-2	0.7	0.3	0.02
BUTYL CARBITOL (DIETHYLENE GLYCOL MONOBUTYLETHER	112-34-5			
C-100/HI SOL 10	+++			
C-150/HI SOL 15	+++			
CELLOSOLVE ACETATE (ETHOXYETHYL ACETATE)	111-15-9	6.5	2.6	
ETHYL 3 THOXYPROPIONATE	763-69-9			
ETHYL ALCOHOL	64-17-5	892.9	372.0	
ETHYLBENZENE	100-41-4	102.2	42.6	
ETHYLENGLYCOLn-BUTYL ETHER (2-BUTOXYETHANOL)	111-76-2	28.2	11.8	
EXXATE 600	88230-35-7			
FORMALDHYDE	50-00-0			0.01
HEXANOL	+++			
METHYL ETHYL KETONE	78-93-3	138.6	57.8	13.16
METHYL ISOBUTYL KETONE	108-10-1	48.2	20.1	
NAPHTHALENE	91-20-3	11.7	4.9	
LIGHT AROMATIC NAPHTHA (AROMATIC PETROL. DISTIL.)	64742-95-6			
HEAVY AROMATIC NAPHTHA (AROMATIC NAPHTHA)	64742-94-5			
N-BUTYL ALCOHOL	71-36-3			
1-3-PENTANEDIOL	25265-77-4			
S-BUTYL ALCOHOL	78-92-2			
SC 150	+++			
TOLUENE	108-88-3			328.95
TEXANOL	25265-77-4			
XYLENE (XYLOL)	1330-20-7			

SOLID COMPOUNDS	CAS #	8 HR	24 HR	ANNUAL
ALUMINUM	7429-90-5			
AMORPHOUS SILICA	7631-86-9	1409.77	575.66	
CARBON BLACK	1333-86-4	822.37	341.28	
CHROMIUM VI OXIDE	1333-87-0	11.75	4.93	
CRISTOBALITE	14464-46-1			
LEAD	7439-92-1	35.24	14.80	14.80
TITANIUM DIOXIDE	13463-67-7			

NOTE: ASSUME FOR SOLIDS A 10% OVERSPRAY AND 99% REMOVAL EFFICIENCY

MAXIMUM PERCENTAGES ALUMAX PAINT COMPOUNDS 6/26/90
 HORIZONTAL PAINT LINE AT 12 GPM SPRAYING

VOC COMPOUNDS	CAS #	CALCULATED MAXIMUM PERCENTAGES (%)		
		8 HR	24 HR	ANNUAL
BENZENE	71-43-2	1.0	0.4	0.03
BUTYL CARBITOL (DIETHYLENE GLYCOL MONOBUTYLETHER	112-34-5			
C-100/HI SOL 10	+++			
C-150/HI SOL 15	+++			
CELLOSOLVE ACETATE (ETHOXYETHYL ACETATE)	111-15-9	8.9	3.6	
ETHYL 3 THOXYPROPIONATE	763-69-9			
ETHYL ALCOHOL	64-17-5	1219.1	508.0	
ETHYLBENZENE	100-41-4	139.6	58.2	
ETHYLENEGLYCOLn-BUTYL ETHER (2-BUTOXYETHANOL)	111-76-2	38.5	16.1	
EXXATE 600	88230-35-7			
FORMALDHYDE	50-00-0			0.02
HEXANOL	+++			
METHYL ETHYL KETONE	78-93-3	189.3	78.9	17.97
METHYL ISOBUTYL KETONE	108-10-1	65.8	27.4	
NAPHTHALENE	91-20-3	16.0	6.7	
LIGHT AROMATIC NAPHTHA (AROMATIC PETROL. DISTIL.)	64742-95-6			
HEAVY AROMATIC NAPHTHA (AROMATIC NAPHTHA)	64742-94-5			
N-BUTYL ALCOHOL	71-36-3			
1-3-PENTANEDIOL	25265-77-4			
S-BUTYL ALCOHOL	78-92-2			
SC 150	+++			
TOLUENE	108-88-3			449.14
TEXANOL	25265-77-4			
XYLENE (XYLOL)	1330-20-7			

SOLID COMPOUNDS

	CAS #			
ALUMINUM	7429-90-5			
AMORPHOUS SILICA	7631-86-9	320.81	131.00	
CARBON BLACK	1333-86-4	187.14	77.66	
CHROMIUM VI OXIDE	1333-87-0	2.67	1.12	
CRISTOBALITE	14464-46-1			
LEAD	7439-92-1	8.02	3.37	3.37
TITANIUM DIOXIDE	13463-67-7			

NOTE: ASSUME FOR SOLIDS A 60% OVERSPRAY AND 99% REMOVAL EFFICIENCY