

# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

February 14, 2002

CERTIFIED MAIL – Return Receipt Requested

Mr. Lee Schmulde  
Vice President, Legal  
Walt Disney World Co.  
P.O. Box 10,000  
Lake Buena Vista, Florida 32830-1000

Re: Walt Disney World Resort  
Conditional Exemption for One Paint Spray Booth  
Disney's Animal Kingdom Theme Park: Spray Booth (DAKU-53)

Dear Mr. Schmulde:

The Department has evaluated the submittal regarding the above referenced proposed new emission activity, in which one paint spray booth (DAKU-53) will be located adjacent to the "Back of House" facilities building, which supports Disney's Animal Kingdom theme park. The operation will emit volatile organic compounds (VOC) emissions.

The DAKU-53 operation will be used to spray coating materials on fixtures, furniture, props, and other assorted wood and metal products, and as needed for touch-up requirements. The increase of potential VOC emissions from the new booth is 0.6 ton per year (TPY; potential/estimated gallons per year usage of paints and solvents are 400).

The existing facility is a "major source of air pollution" or "Title V Source" for criteria pollutants and hazardous air pollutant emissions pursuant to Rule 62-210.200, Florida Administrative Code (F.A.C.), Definitions, and received its initial Title V operation permit on December 31, 1997, and became effective on January 1, 1998. Since the proposed contemporaneous VOC emissions increase is much less than the significant emissions rate of 40 TPY contained in Table 212.400-2, F.A.C., the proposal is not subject to PSD new source review pursuant to Rule 62-212.400(5), F.A.C.; also, for PSD review consideration pursuant to Rule 62-212.400(6)(b), F.A.C., it is determined that the proposal is not considered as part of a phased project. Finally, there are no specific emission limiting standards pursuant to Rule 62-204.800 and Chapter 62-296, F.A.C.

Based on the above findings, the Department is granting a conditional exemption from the air permitting requirements of the Florida Department of Environmental Protection for the subject paint spray booth. The exemption is based on the premise that any air pollutants emitted from the proposed paint spray booth will not be in significant quantities to contribute to air pollution problems in the state pursuant to Rule 62-4.040(1)(b), F.A.C.

The conditions of this exemption are:

A. Disney's Animal Kingdom Theme Park: Spray Booth (DAKU-53)

1. The total material usage of the paint spray booth operations is 400 gallons per calendar year.

2. The owner or operator(s) will account for the materials used using a materials balance scheme, which employs the following:

a. a beginning inventory of materials in stock (on or about 1/1/yr);

b. adding any materials received during the year;

c. subtracting any materials recycled during the year; and,

d. subtracting any ending inventory of materials in stock (on or about 12/31/yr), with the net result assumed to have been used and emitted.

*"More Protection, Less Process"*

*Printed on recycled paper.*

3. Any records shall be retained for a five year period and made available for Department inspection upon request.
4. The operation of this activity shall not cause or contribute to an objectionable odor.
5. If the conditions on which this exemption are based change, the operator shall notify the Department's Bureau of Air Regulation of the changes and request the exemption be amended.
6. Upon the next opening of the facility's Title V operation permit, this paint spray booth will be identified/designated as an "unregulated" emissions unit/activity and placed in Appendix U-1, Unregulated Emissions Units/Activities, for future inventory purposes on an every 5-year basis, starting in year 2000.

This conditional exemption will take effect 21 days from the clerking date unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, Florida Statutes (F.S.). The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed agency action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within twenty-one days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and, (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the request for conditional exemption have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

#### NOTICE OF APPEAL RIGHTS

Any party to this conditional exemption has the right to seek judicial review of it under Section 120.68, F.S., by filing a Notice of Appeal under Rule 9.110, of the Florida Rules of Appellate Procedure with the Clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this conditional exemption is filed with the Clerk of the Department.

A copy of the conditional exemption and accompanying materials related to the proposed agency action are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the

Walt Disney World Resort  
Conditional Exemption for One Paint Spray Booth  
Disney's Animal Kingdom Theme Park: Spray Booth (DAKU-53)  
February 14, 2002  
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Department of Environmental Protection, Division of Air Resources Management, Suite 23, Magnolia Courtyard, 111 South Magnolia Drive, Tallahassee, Florida 32301, and at the Department's Central Florida District Office, 3319 Maguire Blvd., Suite 232, Orlando, Florida 32803-3767.  
Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION**



Howard L. Rhodes, Director  
Division of Air Resources Management  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
(850)488-0114

Walt Disney World Resort  
Conditional Exemption for One Paint Spray Booth  
Disney's Animal Kingdom Theme Park: Spray Booth (DAKU-53)  
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**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF CONDITIONAL EXEMPTION and all copies were sent by certified mail before the close of business on 2/14/02 to the person(s) listed:

Mr. Lee Schmudde, Vice President, Legal, Walt Disney World Co.

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this NOTICE OF CONDITIONAL EXEMPTION were sent by U.S. mail on the same date to the person(s) listed, unless otherwise noted:

Mr. Len Kozlov, CD (Interoffice mail)  
Mr. Richard Bumar, P.E., Walt Disney World Co.  
Mr. Scott Sheplak, BAR (hand delivered)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), F.S., with the designated agency Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 2/14/02  
(Clerk) (Date)

HLR/CHF/bm



WALT DISNEY World Co.

RECEIVED  
FEB 11 2002  
BUREAU OF AIR REGULATION

February 6, 2002

Mr. Clair Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Installation of one new paint spray booth  
Disney's Animal Kingdom Paint Shop

Dear Mr. Fancy:

This letter proposes a conditional exemption from construction permitting requirements for a new paint spray booth at the Walt Disney World Resort complex. The unit will be located adjacent to the "Back of House" facilities building which supports Disney's Animal Kingdom theme park. The booth is a model OWA-22-PSB-S, manufactured by JBI, Inc., and will be used to spray coating materials on fixtures, furniture, props, and other assorted wood and metal products. The booth will utilize dry paint arrestor type filters to capture paint overspray. Please designate this spray booth as DAKU-53.

Based on the proposed production schedule and material usage rate, the booth has the potential to emit no more than 0.6 tons of Volatile Organic Compounds (VOC) per year. Please refer to Attachment A for the calculations that verify this amount and for the booth's design drawings. Attachment B shows the location and plot plan of the proposed emissions unit. Attachment C contains the professional engineer's certification and the responsible official's statement.

Since the potential VOC emissions from the operation are below the 40-ton significance threshold established in 62-212 F.A.C., it is requested that the unit be granted a conditional exemption from construction permitting requirements. It is further requested that the spray booth be added as an unregulated emissions unit to the Walt Disney World Resort's Title V permit upon its next opening.

If you require any further information, please call me at 407-828-3847. I can also be reached by email at rich.bumar@disney.com.

Sincerely,

Rich Bumar, P.E.  
Sr. Environmental Control Representative

Attachments

cc: Mike Bass (w/o Attachments)  
Leonard Kozlov  
Bruce Mitchell  
Mike Morrow (w/o Attachments)  
Armando Rodriguez (w/o Attachments)  
Lee Schmudde (w/o Attachments)  
Scott Sheplak (w/o Attachments)

# CONDITIONAL EXEMPTION REQUEST

## DISNEY'S ANIMAL KINGDOM BACK OF HOUSE FACILITIES BUILDING PAINT SPRAY BOOTH

WALT DISNEY WORLD CO.

February 6, 2002

### SUPPLEMENTAL INFORMATION

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| ATTACHMENT B | <ul style="list-style-type: none"><li>• FACILITY PLOT PLAN</li><li>• AREA MAP</li></ul>  |
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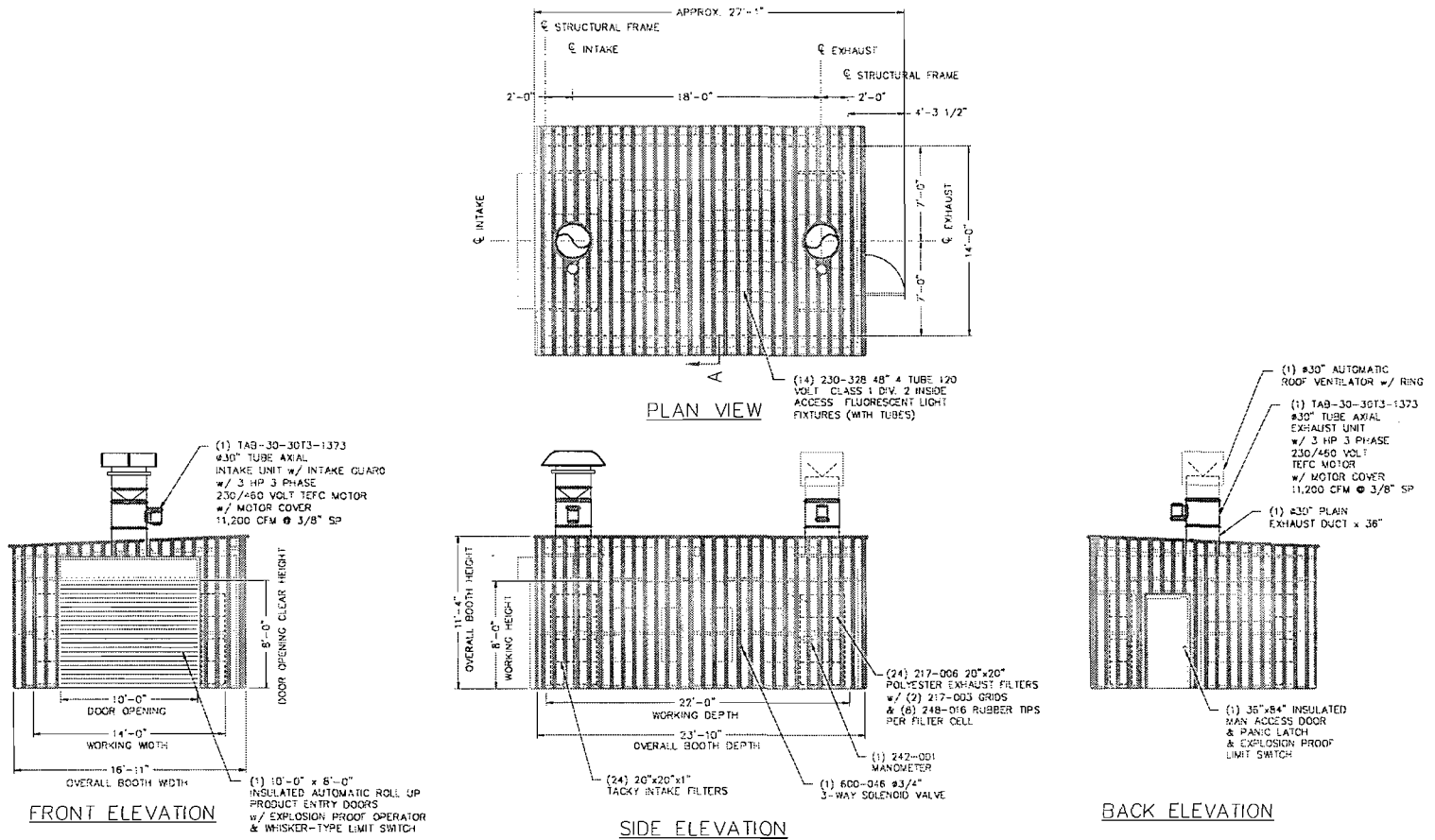
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FEB 11 2002

BUREAU OF AIR REGULATION

**ATTACHMENT A**

**SPRAY BOOTH EMISSIONS CALCULATIONS  
SPRAY BOOTH DESIGN DRAWINGS  
PAINT MATERIAL TECHNICAL MANUALS AND MSD SHEETS**



**ATTACHMENT A  
 SPRAY BOOTH DESIGN DRAWINGS  
 DISNEY'S ANIMAL KINGDOM - BACK OF HOUSE FACILITIES BUILDING PAINT SPRAY BOOTH**



**Attachment A**

**Disney's Animal Kingdom Facilities Building Spray Booth- DAKU-53**

Class	Manufacturer	Material Name	Projected Annual Usage, gal	VOC content, lb/gal	Potential VOC Emissions	
					Annual lb	Annual tons
Epoxy	DuPont	Corlar 25P (spray ready) <sup>1</sup>	200	2.7	540	0.27
Polyurethane	DuPont	Imron 610P (spray ready) <sup>2</sup>	200	3.5	700	0.35
<b>Totals</b>			<b>400 gallons</b>		<b>1,240</b>	<b>0.6</b>

<sup>1</sup>Reference Corlar 25P technical manual

<sup>2</sup>Reference Imron 610P technical manual



## DuPont Industrial Coatings

# CORLAR® 25P

### high solids epoxy mastic

**Type:**

Amido amine modified polyamide epoxy

**Description:**

Corlar® 25P is a two-package (1:1 mix), high solids, high build, VOC Conforming (see VOC chart), multi-use epoxy mastic coating. It provides outstanding application properties—no induction time, long pot life, can be applied in hot or cold weather, faster dry times, excellent film build on *both* flat surfaces and edges, goes over hand-cleaned, rusty surfaces, can be applied over damp surfaces, most other coatings and can be topcoated with a wide range of coatings. Its performance and durability are excellent under most conditions and environments.

**Suggested Uses:**

Corlar® 25P is a multi-use product suitable for application in a variety of situations.

- As a single coat in non-corrosive, interior environments (5-8 mils DFT).
- As a single coat in corrosive, interior environments (10-12 mils DFT).
- As a primer in 2 or 3 coat systems (3-8 mils DFT).
- As an intermediate or mid-coat in a 3 coat system (4-6 mils DFT).
- Provides excellent durability and adhesion over steel, galvanized steel, masonry—concrete, concrete floors and wood.

**Recommended For Immersion Service:**

Corlar® 25P is recommended for immersion service in near neutral, fresh or salt water exposures. It is not recommended for use with potable water. It may be used for fire water towers, ballast tanks, clarifiers, waste water treatment plants, offshore structures, pier pilings and supports and other areas where a high level of water resistance is required.

While the application of Corlar® 25P for immersion is recommended for the above conditions, certain procedures must be followed for successful application. Contact DuPont for complete "Fitness for Use Recommendations" as well as specifications and application procedures.

See Additional Comment #6.

**Compatibility With Other Coatings:**

- Corlar® 25P is highly compatible with most generic types of coatings.
- It can be applied over most coatings in sound condition. If in doubt, apply a test patch before painting.

**Color Change/Chalking:**

Corlar® 25P is primarily designed for corrosion protection and like all epoxies, will chalk upon exposure to sunlight. If gloss, color retention and color stability are important, Corlar® 25P should be topcoated with Imron® 333 or 333M, DuPont 50P or Tufcote® 72P.

**Maximum Service Temperature:**

250° F (121° C) in continuous service  
300° F (148° C) in intermittent heat  
100° F in immersion service

**Resistance:**

Abrasion	Excellent
Acids	Very Good
Alkalis	Excellent
Ammonia	Excellent
Humidity	Excellent
Salts	Excellent
Solvent	Excellent
Weather	Very Good (will chalk on exterior exposure)

**Volume Solids (Mixed):**

70% Avg.

**Weight Solids (Mixed):**

82% Avg.

**Weight Per Gallon (Mixed):**

11.8 Lb. Avg. 5.4 Kg. Avg.

**Suggested Film Build (DFT):**

Single Coat — 5-8 mils in noncorrosive environment  
10-12 mils in corrosive environment and immersion service  
Primer — 3-8 mils  
Mid Coat — 4-6 mils

**Theoretical Coverage Per Gallon:**

1122 ft.<sup>2</sup> @ 1 mil DFT  
224 ft.<sup>2</sup> @ 5 mils DFT  
112 ft.<sup>2</sup> @ 10 mils DFT

**Gloss:**

Satin Finish

**Colors:**

Factory Packaged—White, Cirrus Gray, Shale Gray, Clay Tan, Red Oxide, Aluminum  
Custom Color—See Industrial Coatings Color Selector  
\*Note: As with all epoxies, exposure to certain conditions will accelerate chalking/yellowing of dried film.

**Flash Point (Tag Closed Cup):**

25P Bases > 100°F  
VF-525 < 73°F

# CORLAR® 25P

## high solids epoxy mastic

### APPLICATION INSTRUCTIONS

#### Surface Preparation:

For atmospheric service, an SSPC-SP 6. (Commercial) is preferred for optimal performance. If not possible or practical, then hand tool clean to an SSPC-SP 2 or power tool clean to an SSPC-SP 3. For immersion service, an SSPC-SP 5 is required.

#### Activation:

Add 1 part VF-525 activator to 1 part 25P base. Mix until thoroughly blended. You may begin painting immediately—there is no induction time.

#### Reduction:

2-5% of Y-32035 is required under normal conditions for airless spray. 7-10% is the suggested level of thinning for conventional spray. For maximum pot life, reduce 15% by volume with Y-32035 or RT001P.\* Use T-8054 thinner in hot or windy conditions for spray application. Reduce 10-15% with RT001P thinner when applying by roller or brush. If more reduction is required, consult your local DuPont Industrial Coatings representative.  
\* See Additional Comments #3

#### Pot Life:

8 hours @ 70°F to 90°F when reduced 15% by volume with Y-32035 or RT001P thinner.

#### Shelf Life:

12 months minimum

#### Application Thinners:

Normal Conditions — Y-32035  
Hot or Windy Conditions — T-8054 (spray)  
Brush or Roll — RT001P

#### Clean Up Thinners:

T-8054 or MEK

#### Packaging:

1 & 5 gallon containers

#### Shipping Weight (Lbs.):

	Base	Activator
1 gallon container	14	11
5 gallon container	68	55

#### Safety:

Consult the Material Safety Data Sheet for this product prior to use.

#### Application Conditions:

Do not apply if material, substrate or ambient temperature is below 35°F (2°C) or above 100°F (43°C).

#### Dry Times (Hours @ 5 mils DFT 50% R.H.)

	50°F (10°C)	70°F (21°C)	90°F (32°C)
To Touch	3-4	2-3	1-2
To Handle	8	4	2
To Recoat	5	3	2
Full Cure	14 Days	7 Days	4 Days

#### Application:

Apply by brush, roll, or spray

#### Roll:

1/4"-1/2" lambs wool or synthetic roll cover such as One Coater®. Keep roll wet. Roll in one direction, rewet, then cross roll.

Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

#### Air Spray:

	Binks	DeVilbiss	Graco
Spray Gun:	18 or 62	JGA502 or MBC510	Delta 239-545
Fluid			
Nozzle:	66 or 67	E or D*	.110
Air Cap:	66 or 67PB	704, 765, or 78	192-319

\* See Additional Comments #4

#### Airless Spray:

Pump: Capability to produce 3000 psi (e.g. Graco Bulldog, EH333 or GM5000)

High Pressure Filter: 60 Mesh

Fluid Hose: 3/8" x 150' max.

Note: If more than 100', use 45:1 King and to 1/2" x 100' plus 3/8" x 50'

Airless Gun: Graco 207945, 208663, 220-954 or 220-730

Tips: .015"-.027"

Minimum pressure to avoid fingering: 2000 psi

#### Additional Comments:

- Custom Color bases are short filled to allow for colorant addition.  
1LB25P—Light base (124 oz./gal.)  
2MB25P—Medium base (120 oz./gal.)  
3DB25P—Deep base (116 oz./gal.)  
4NB25P—Neutral base (112 oz./gal.)
- USDA approved.
- At 15% reduction, reduced maximum film thickness will be obtained.
- If using D fluid nozzle, minimize reduction to avoid runs and sags.
- Recoating of Corlar® 25P should be done as soon as possible - at 70° F, this is around 3 hours. In accordance with SSPC Best Painting Practices, and in an attempt to minimize contamination between coats, please use the following guidelines as best practice for assuring proper adhesion.  
A. After 7 days water wash, 1500 psi, recoat as soon as possible.  
B. After 30 days:  
**Option 1:** Water wash, 1500 psi and apply 2 mils coat 25P. Topcoat as soon as possible.  
**Option 2:** Sweet blast surface SSPC-SP7, water wash, 1500 psi, and apply topcoat as soon as possible.



DuPont Industrial Coatings

# CORLAR® 25P

## PHYSICAL PROPERTIES

Physical properties listed are averaged across several Corlar® 25P product colors. Properties are for Corlar® 25P only and are enhanced when used in conjunction with topcoats such as Imron® polyurethane or at higher film builds. For specific system results, contact DuPont Industrial Coatings.

**Dry Film Thickness (DFT):**  
5.3

**Salt Fog (ASTM B117)**  
1000 hours - no rusting, no blisters  
2000 hours - no rusting, very few #2 blisters at the scribe  
3000 hours - very few #2 blisters at the scribe, no rusting, no undercutting at the scribe

**Relative Humidity (ASTM D2247)**  
1000 hours - no rusting, no blisters  
2000 hours - no rusting, very few #2 blisters on the face of the panel  
3000 hours - no rusting, very few #2 blisters on the face of the panel

**Dry Heat (ASTM D2485) 250 F for 24 hours:**  
no cracking  
no blisters  
very slight loss of adhesion  
very slight discoloration

**Electrical Resistance (ASTM D2457):**  
5.5 x 10<sup>7</sup>

**Adhesion (ASTM D4521 A2):**  
>2000 psi

**Cleveland Cond (ASTM D4585):**  
1000 hours - no rusting, no blisters, no delamination

**Impact (ASTM D2794):**  
1 inch pound

**Mandrel Bend (ASTM D522):**  
% elongation - 0%

**Taber Abrasion (ASTM D4060):**  
weight loss in grams - 0.41

**Volatile Organic Content (VOC) Theoretical:**

Condition	Thinner	% VOC		
		Max	(lbs/gal)*	VOC (g/l)*
Airless Normal	Y32035	2-5	2.3	276
Conventional	Y32035	7-10	2.5	300
Max. Pot Life	Y32035	15	2.7	324
	RT001P	15	2.8	336
Hot & Windy	T-8054	10-15	2.8	336
Brush & Roll	RT001P	10-15	2.8	336
Mixed Unthinned				
	Colors		2.1	252
Mixed Unthinned				
	6AL25P		2.3	276

\*Reported values at higher level of reduction (theoretical/ave.)  
VOC values by color reported values are averages.  
6AL25P maximum reduction to stay within 2.8 lbs./gal. VOC = 10% with RT001P, T-8054 or Y32035

- Additional Comments (Continued):**
- Do not roll for immersion applications. Spray apply only.
  - When applying over inorganic zinc primers, a mist coat is recommended for best results to minimize bubbling. Apply a mist coat and allow bubbles to break. Apply a full wet coat after mist coat.
  - Under certain high humidity and low temperature conditions an amine blush is possible. This blush should be removed before proceeding with next coat.
  - Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.



DuPont Industrial Coatings

# IMRON® 610P

DuPont Industrial Coatings

## high solids clear

**Type:**  
A 2-Package Polyurethane

**Description:**  
A high solids, two-package, VOC conforming clear consisting of a clear enamel (610P) which is based on patented DuPont resin technology and an isocyanate activator (VG-610). It is an extremely durable finish having outstanding gloss retention. Imron® 610P also has excellent cleanability and chemical resistance.

**Suggested Uses:**

- Topcoat over Imron® 333, Imron® 610 ASD
- Gloss enhancer to restore old, dull finishes

**Not Recommended For:**  
Immersion Service

**Compatibility With Other Coatings:**  
Can be applied directly over Corlar® Epoxies, or Imron® 333. May be used over any old finish after testing for lifting of old finish.

\* See Additional Comments #3.

**Dry Film Characteristics:**

Acids—Excellent	Solvents—Very Good
Alkalis—Excellent	Gloss Retention—Excellent
Humidity—Excellent	Abrasion & Mechanical Abuse—Excellent
Salts—Excellent	Weather—Excellent

**Maximum Service Temperature:**  
200°F (93°C) in continuous service  
300°F (148°C) in intermittent heat  
Some yellowing of light colors may occur at elevated temperatures.

**Volatile Organic Content (VOC) theoretical:**

Component VOC	3.8 lbs./gal. (456 g/l)
Mixed VOC, no reduction	3.4 lbs./gal. (408 g/l)
Mixed VOC, reduction with 68083 thinner or 2 oz. of 389S	3.5 lbs./gal. (420 g/l)

**Volume Solids (Mixed):**  
52%

**Weight Solids:**  
58%

**Weight Per Gallon (Mixed):**  
8.3 Lbs.    3.7 Kg.

**Suggested Film Build:**  
3-4 mils (75-100 µm) wet (WFT)  
1.5-2 mils (37-50 µm) dry (DFT)

**Coverage Per Gallon: \***  
834 ft.<sup>2</sup> (20.5m<sup>2</sup>/L) @ 1 mil  
556 ft.<sup>2</sup> (13.6m<sup>2</sup>/L) @ suggested dry film thickness of 1.5 mils  
\* Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

**Gloss:**  
90 @ 60° minimum

**Colors:**  
Clear

**Flash Point (Tag Closed Cup):**  
Between 73-100°F (23° to 38°C) Enamel  
Between 20-73°F (-7° to 23°C) Activator

**Shelf Life:**  
1 year minimum

**Application Thinners:**  
Spray, Brush, Roll: Y-32401 or 68083

**Clean-Up Thinners:**  
Y-32035 or MEK

**Packaging:**  
Enamel: 1's (75% full);  
5's (60% full); 55's (full)  
Activator: Quarts and gallons

**Shipping Weight (Lbs.):**

Enamel	Activator
1 gallon container – 8	1 quart container – 3
5 gallon container – 27	1 gallon container – 9

### Safety:

IMRON® 610P Clear  
Warning—VG-610 Activator contains aliphatic isocyanates.

Danger! Vapors and spray mist are harmful if inhaled. Overexposure may cause lung injury, allergic respiratory reaction, dizziness and nervous system damage. The effects may be permanent. These materials are flammable and they may irritate eyes and skin.

VG-610 contains aliphatic polyisocyanates and hexamethylene diisocyanate monomer. The activated mixture contains all of the components of the activator plus esters, ether esters, and petroleum distillates. Do not breathe the vapor or spray mist.

Wear a respirator, eye protection, gloves, and protective clothing while mixing activator with enamel, during application, and until all vapors and spray mist are exhausted.

Wear a positive-pressure, supplied-air respirator (NIOSH/MSHA TC-19C) during the spray application (or brush or roll application in poorly ventilated areas) of this product. For mixing and for brush and roll application in well ventilated areas, a negative pressure, vapor/particulate respirator (NIOSH/MSHA TC-23C) can be used provided the wearer has been properly fit-tested for the respirator.

Follow respirator manufacturer's directions for respirator use.

Individuals with lung or breathing problems or prior reaction to isocyanates must not be exposed to vapors or spray mist. Do not get in eyes or on skin. Keep away from heat, sparks, and flame. Vapors may cause a flash fire. Use only with adequate ventilation. Keep the container closed when not in use. If you have any questions regarding the safe handling of these products, call 800-441-7515.

All technical advice, recommendations and services are rendered by the Seller gratis. They are based on technical data which the Seller believes to be reliable, and are intended for use by persons having skill and know-how at their own discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by Buyer in whole or in part. Such recommendations, technical advice or services are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.

# IMRON® 610P

## high solids clear

### APPLICATION INSTRUCTIONS

#### Surface Preparation:

Newly primed surfaces should be clean and dry. If contaminated, detergent/water wash, then blow dry. Previously painted surfaces should have all loose paint removed and the edges feathered. Prime bare spots with appropriate primer.

#### Activation:

Thoroughly mix 3 parts of enamel, then add 1 part of VG-610 activator while stirring. No induction period is necessary.

#### Pot Life:

1.5 – 2 hours @ 77°F and 50% R.H. Higher temperatures and humidity will severely shorten pot life.

#### Reduction:

Normally 0-3% (1-4 oz.) reduction is adequate for spray application depending upon conditions and equipment. Maximum reduction should not exceed 3%. Use Thinner 68083. If faster recoat and handling is required, add up to 2 oz./gal. of 389S accelerator.

#### Storage Conditions:

Store in a dry, well ventilated area. Storage temperatures should be between -30°F (-34°C) and 120°F (48°C).

#### Additional Comments:

1. Dry times can be improved by adding 389 S accelerator at the rate of 2 oz./activated gallon.
2. May be recoated by spray when tack-free.
3. For best results when applying 610P over itself or over other Imron products, the clear should be applied within 72 hours @ 70°F. If more than 72 hours has elapsed, the surface should be scuffed with very fine (400-600) sand paper before applying the 610P.

#### Application Conditions:

This product is best applied by spray. Do not apply if the application surface is below 45°F (7°C) or above 110°F (43°C), or if the atmospheric temperature is within 5°F of the dew point. For best results, application temperature should be between 65°F and 85°F. Relative humidity should be below 90%. For application temperatures below 45°F, the use of 389S accelerator is required. Mix only amounts that 9 airless spray application, tip size must not exceed .011".

#### Drying Time (Hours @ 77°F (25°C), 50% R.H. @ 1.5-2.0 mils suggested DFT):

	Hours With 2 oz. 389S	
Dry to Touch	4-6	1-2
Dry to Recoat	10-12	2-4
Dry to Handle	10-12	8
Pack/Ship	24	16
Full Cure	7 days	6 days
Pot Life	1.5-2	1.5-2

#### Application Equipment:

- Apply by spray, brush or roll.
- Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

#### Roll:

1/4" - 1/2" lambs wool or synthetic roll cover such as One Coater®. Keep roll wet. Roll in one direction, rewet, then cross roll. May not be useful for large flat surfaces.

#### Air Spray:

	Binks	DeVilbiss
Spray Gun:	#18 or #62	JGA502 or MBC510
Fluid Nozzle:	66 or 67	E or D
Air Cap:	66 or 67 PB	704, 765 or 78

#### Airless Spray:

0.009"-0.011" Airless Tip  
2100-2250 psi pressure (minimum to avoid fingering)

Note: Avoid excessive film builds.

Air spray application is preferred method for finest finish.

All technical advice, recommendations and services are rendered by the Seller gratis. They are based on technical data which the Seller believes to be reliable, and are intended for use by persons having skill and know-how in their own discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by Buyer in whole or in part. Such recommendations, technical advice or services are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.

**DuPont Performance Coatings**  
**MATERIAL SAFETY DATA SHEET**  
**IMRON® ACTIVATORS, CLEARS AND ADDITIVES**

**SECTION 1 - Product and Company Identification**

Manufacturer:	E.I. DuPont de Nemours & Co. DuPont Performance Coatings Wilmington, DE, 19898	BUTYL ACETATE	123-86-4	10.0	A None O None A 200.0 ppm 15 min STEL A 150.0 ppm O 150.0 ppm
Telephone:	Product Information: (800) 441-7515 Medical Emergency: (800) 441-3637 Transportation Emergency: (800) 424-9300 (CHEMTREC)	DIBUTYL TIN DILAURATE	77-58-7	0.2 @160.0°C	A None O None
Product:	<b>IMRON ACTIVATORS, CLEARS, AND ADDITIVES</b>	DIMETHYL GLUTARATE	1119-40-0	0.2	D 10.0 mg/m <sup>3</sup> A None O None
DOT Shipping Name:	See DOT addendum.				
Hazardous Materials Information:	See Section 10.				

**SECTION 2 - Composition, Information on Ingredients**

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS			
ACETONE	67-64-1	180.0@68.0°F	A 750.0 ppm 15 min STEL A 500.0 ppm O 1000.0 ppm D 500.0 ppm 8 & 12 hour TWA	ETHYL ACETATE	141-78-6	76.0 A 400.0 ppm O 400.0 ppm
ACRYLIC POLYMER-A	80010-53-3	None	A None O None	ETHYL BENZENE	100-41-4	7.0 A 125.0 ppm 15 min STEL A 100.0 ppm O 100.0 ppm D 25.0 ppm 8 & 12 hour TWA
ACRYLIC POLYMER-B	104032-39-5	None	A None O None	ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	112-07-2	0.3 D 10.0 ppm Skin A None O None
ALIPHATIC POLYISOCYANATE RESIN	28182-81-2	None	S 1.0 mg/m <sup>3</sup> 15 min STEL S 0.5 mg/m <sup>3</sup> A None O None	HYDROUS MAGNESIUM SILICATE	14807-96-6	None A 2.0 mg/m <sup>3</sup> Respirable D 0.5 mg/m <sup>3</sup> 8 & 12 hour TWA Respirable Dus O None
AMORPHOUS SILICA	7631-86-9	None	A 1.0 mg/m <sup>3</sup> 15 min STEL O 15.0 mg/m <sup>3</sup> A 0.2 mg/m <sup>3</sup> Respirable O 5.0 mg/m <sup>3</sup> Respirable	METHYL AMYL KETONE	110-43-0	2.1 A 50.0 ppm O 100.0 ppm
AROMATIC HYDROCARBON-B	64742-95-6	10.0 @ 25.0°C	D 50.0 ppm A None O None	METHYL ETHYL KETONE	78-93-3	71.0 @ 0.0 A 300.0 ppm 15 min STEL D 300.0 ppm 15 min TWA A 200.0 ppm O 200.0 ppm D 200.0 ppm 8 & 12 hour TWA
BUTANEDIOIC ACID, DIMETHYL ESTER	106-65-0	None	D 10.0 mg/m <sup>3</sup>	PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	3.7 D 10.0 ppm 12 hr TWA

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SILICONE RESIN	9016-00-6	7.0	A None O None
SUBSTITUTED BENZOTRIAZOLE	25973-55-1	None	A None O None
SYNTHETIC AMORPHOUS SILICA	63231-67-4	None	O 6.0 mg/m <sup>3</sup> PEL A 10.0 mg/m <sup>3</sup> TLV
TOLUENE	108-88-3	22.0	O 300.0 ppm CEIL O 200.0 ppm D 50.0 ppm 8 & 12 hour TWA A 50.0 ppm Skin O 500.0 ppm 10 min TWA Maximum
XYLENE	1330-20-7	9.0 @ 25.0°C	A 100.0 ppm TWA A 150.0 ppm 15 min STEL D 150.0 ppm 15 min STEL O 100.0 ppm D 100.0 ppm 8 & 12 hour TWA
1, 6 HEXAMETHYLENE DIISOCYANATE	822-06-0	0.0 @ 25.0°C	A 5.0 ppb O None
1,2,4-TRIMETHYL BENZENE	95-63-6	7.0 @ 44.4 °C	A 25.0 ppm O 25.0 ppm
2-(2H-BENZOTRIAZOL-2-YL)-4,6-BIS(1-METHYL-1-PHENYLETHYL)PHENOL	70321-86-7	None	S 2.0 mg/m <sup>3</sup> A None O None
2,4-PENTANEDIONE	123-54-6	7.0	A None O None

\*A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @25°C unless otherwise noted.

**SECTION 3 - Hazards Information**

**Potential Health Effects:**

**Inhalation:**

May cause nose and throat irritation. May cause nervous system

depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. If this product contains or is mixed with an isocyanate activator/hardener, the following health effects may apply: Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include an asthma-like reaction with shortness of breath, wheezing, cough or permanent lung sensitization. This effect may be delayed for several hours after exposure. Repeated overexposure to isocyanates may cause a decrease in lung function, which may be permanent. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of this product.

**Ingestion:**

May result in gastrointestinal distress.

**Skin or eye contact:**

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

**Other Potential Health Effects in addition to those listed above:**

**ACETONE**

May cause irritation of the mucous membranes. The following medical conditions may be aggravated by exposure: respiratory system skin. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis. Overexposure may cause damage to any of the following organs/systems: blood eyes kidneys liver respiratory system skin. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

**ALIPHATIC POLYISOCYANATE RESIN**

Overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough, which may be permanent; or permanent lung sensitization. This effect may be delayed for several hours after exposure. The following medical conditions may be aggravated by exposure: asthma lung disease bronchitis eczema skin disorders. May cause any of the following central nervous system effects: breathing difficulties headache nausea vomiting. Contact may cause skin irritation with discomfort or rash. Repeated exposure may cause allergic skin rash, itching, swelling. May cause eye irritation with discomfort, tearing, or blurred vision. Can be absorbed through the skin in harmful amounts. Repeated overexposure to isocyanates may cause lung injury, including a decrease in lung function, which may be permanent. Individuals with preexisting lung disease, asthma or breathing difficulties may have increased susceptibility to the toxicity of excessive exposures. Material may be harmful or fatal if swallowed. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin.

**AROMATIC HYDROCARBON-B**

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.



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## BUTYL ACETATE

May cause abnormal liver function.  
The following medical conditions may be aggravated by exposure:  
respiratory system  
May cause eye irritation with discomfort, tearing, or blurred vision.  
Tests for embryotoxic activity in animals has been inconclusive.  
Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

## DIBUTYL TIN DILAURATE

Contact may cause skin burns.  
Causes eye corrosion and permanent injury.  
Can be absorbed through the skin in harmful amounts.

## ETHYL ACETATE

Prolonged and repeated high exposures of laboratory animals resulted in secondary anemia with an increase in white blood cells; fatty degeneration, cloudy swelling and an excess of blood in various organs.

## ETHYLBENZENE

Is an IARC, NTP or OSHA carcinogen.  
Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following:  
central nervous system kidneys liver lungs  
Recurrent overexposure may result in liver and kidney injury.  
Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects.

## ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE

May destroy red blood cells.  
May cause abnormal kidney function.  
May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath.  
The following medical conditions may be aggravated by exposure:  
central nervous system gastrointestinal system kidneys liver dermatitis  
Can be absorbed through the skin in harmful amounts.  
Overexposure may cause damage to any of the following organs/systems: blood kidneys liver  
Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

## METHYL AMYL KETONE

Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.  
Over exposure may cause eye, nose and throat irritation. Repeated or prolonged liquid contact may cause skin irritation and dermatitis. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Repeated and prolonged overexposure  
to solvents may lead to permanent brain and nervous system damage. Prolonged or repeated skin contact may cause drying, cracking, or irritation. Inhalation of high vapor concentrations may cause any of the following: drowsiness irritation

## METHYL ETHYL KETONE

Material is irritating to mucous membranes and upper respiratory tract. Persons with certain types of neurological disease such as multiple sclerosis should consult a physician prior to exposure. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following:  
central nervous system eyes respiratory system skin  
Contact may cause skin irritation with discomfort or rash.

Can irritate or burn eyes. Prolonged or repeated overexposure may cause any of the following: conjunctivitis dermatitis  
High concentrations have caused embryotoxic effects in laboratory animals. Methyl ethyl ketone has been demonstrated to potentiate (i.e., shorten the time of onset) the peripheral neuropathy caused by either n-hexane or methyl n-butyl ketone. MEK by itself has not been demonstrated to cause peripheral neuropathy. Mice that were force fed (gavage) showed teratogenic effects embryofetotoxicity and maternal toxicity. The no observed effect level was estimated to be 25g/50 kg (110 lb.) woman. Laboratory animals exposed to high airborne levels showed tissue changes in the nasal passages. Aspiration may occur during swallowing or vomiting, resulting in lung damage. May cause central nervous system depression with headache, stupor, uncoordinated or strange behavior, or unconsciousness.

## PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE

May cause eye irritation with discomfort, tearing, or blurred vision.  
May cause moderate eye burning.  
Recurrent overexposure may result in liver and kidney injury.  
May cause irritation of the upper respiratory passages.

## TOLUENE

Chromosomal changes in the circulating blood of exposed workers have been reported. The significance of these reports is unclear because of exposure to other substances. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system kidneys liver respiratory system skin  
May cause eye irritation with discomfort, tearing, or blurred vision.  
Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heartbeats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed.  
WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

## XYLENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following:  
bone marrow cardiovascular system central nervous system kidneys liver lungs  
Can be absorbed through the skin in harmful amounts.  
Can irritate or burn eyes. Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heartbeats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects to humans is not known. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

## 1, 6 HEXAMETHYLENE DIISOCYANATE

Repeated overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough or permanent lung sensitization. The following medical conditions may be aggravated by exposure:  
Individuals with preexisting lung disease, asthma or breathing difficulties may have increased susceptibility to the toxicity of excessive exposures. Repeated or prolonged skin contact may cause any of the following: severe irritation burns skin sensitization

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Eye contact may cause any of the following: burns

respirator with organic vapor cartridges (NIOSH approved TC-23C), eye protection, gloves and protective clothing. Confine, remove with inert absorbent, and dispose of properly.

## 2,4-PENTANEDIONE

2,4-pentanedione, a component of this product, is regulated by the U.S. EPA, under a significant new use rule. It is a violation of federal law to sell or use this product in consumer applications, including to private individuals, schools, and vocational schools. Can be absorbed through the skin in harmful amounts. Repeated exposures to high concentrations has caused adverse health effects in laboratory animals. These effects involved the central nervous system, immune system, and the red blood cell forming system. No effect was seen at 100 ppm. The odor is disagreeable at a few ppm. Ingestion may result in gastric disturbances. Liquid or vapor causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva.

### SECTION 4 - First Aid Measures

#### First Aid Procedures:

##### Inhalation:

If affected by inhalation of vapor or spray mist, move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing difficulty persists, or occurs later, consult a physician.

##### Ingestion:

In the unlikely event of ingestion, DO NOT INDUCE VOMITING. Call a physician immediately and have names of ingredients available.

##### Skin or eye:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash thoroughly with soap and water. If irritation occurs, contact a physician.

### SECTION 5 - Firefighting Measures

**Flash Point (Closed Cup)** See Section 11 for exact values.

**Flammable limits** LFL 0.0 % UFL 13.1 %

#### Extinguishing media:

Universal aqueous film-forming foam, carbon dioxide, dry chemical.

#### Fire fighting procedures:

Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to prevent pressure build-up.

#### Fire & explosion hazards:

For flammable liquids, vapor/air will ignite when an ignition source is present. In other cases, when heated above the flash point, emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

### SECTION 6 - Accidental Release Measures

#### Steps to be taken in case material is released or spilled:

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor. If the material contains, or is mixed with an isocyanate activator/hardener: Wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C), eye protection, gloves and protective clothing. Pour liquid decontamination solution over the spill and allow to sit at least 10 minutes. Typical decontamination solutions for isocyanate containing materials are: 20% Surfactant (Tergitol TMN 10) and 80% Water OR 0-10% Ammonia, 2-5% Detergent and Water (balance) Pressure can be generated. Do not seal waste containers for 48 hours to allow CO<sub>2</sub> to vent. After 48 hours, material may be sealed and disposed of properly. If material does not contain or is not mixed with an isocyanate activator/hardener: Wear a properly fitted air-purifying

### SECTION 7 - Handling and Storage

#### Precautions to be taken in handling and storing:

Observe label precautions. If combustible (flashpoint between 100 - 200°F), keep away from heat, sparks and flame. If flammable (flashpoint less than 100°F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than 20°F) or flammable, VAPORS MAY IGNITE EXPLOSIVELY OR CAUSE FLASH FIRE, respectively. Vapors may spread long distances. Prevent buildup of vapors. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120°F. If product is waterbased, do not freeze.

#### Other precautions:

If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved respirator or appropriate ventilation, and gloves.

### SECTION 8 - Exposure Controls or Personal Protection

#### Engineering controls and work practices:

##### Ventilation:

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits.

##### Respiratory:

Do not breathe vapors or mists. If this product contains isocyanates or is used with an isocyanate activator/hardener, wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C) during spray application (or brush and roll application in poorly ventilated areas) and until all vapors and spray mist are exhausted. For mixing and brush and roll application in well ventilated areas or, if the product does not contain or is not mixed with an isocyanate activator/hardener, a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH TC-23C) may be used until all vapors are exhausted. In addition, for spray application when product does not contain or is not mixed with an isocyanate activator/hardener, a particulate filter (NIOSH TC-84A) is needed with the organic vapor cartridges until all vapors and spray mist are exhausted. Follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed to vapor or spray mist if product contains or is mixed with isocyanate activators/hardeners.

##### Protective clothing:

Neoprene gloves and coveralls are recommended.

##### Eye protection:

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

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**SECTION 9 - Physical and Chemical Properties**

Evaporation Rate	Slower than Ether
Solubility in water	NIL
Vapor Density	Heavier than air
Approx. boiling range (°C)	No Data Available
Approx. freezing range (°C)	-92 - -73°C
Gallon weight (lbs./gal)	7.24 - 11.55
Specific gravity	0.87 - 1.38
Percent volatile by volume	12.95 - 99.75
Percent volatile by weight	10.00 - 99.73
Percent solids by volume	0.25 - 87.05
Percent solids by weight	0.27 - 90.00

**SECTION 10 - Stability and Reactivity**

**Stability:**

Stable

**Incompatibility (materials to avoid):**

water, alcohols, amines

**Hazardous decomposition products:**

CO, CO<sub>2</sub>, smoke, and oxides of any heavy metals that are reported in Section 2.

**Hazardous polymerization:**

Will not occur.

**Sensitivity to static discharge:**

For flammable materials (flashpoint less than 100°F) and combustibles (flashpoint between 100-200°F) if heated above the flashpoint, solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

**Sensitivity to mechanical impact:**

Not Applicable

**SECTION 11 - Additional Information**

**PRODUCT CODE                      INGREDIENTS (Product Specific)**

**VG-610** Aliphatic Polyisocyanate Resin (74.8%), Butyl Acetate (6.9%), Ethyl Acetate (13.8%), Ethylene Glycol Monobutyl Ether Acetate (4.3%\*), 1, 6 Hexamethylene Diisocyanate (0.1%\*)  
**GAL WT: 9.08 WT PCT SOLIDS: 74.96 VOL PCT SOLIDS: 69.70**  
**SOLVENT DENSITY: 7.49 VOC LE: 2.3 VOC AP: 2.3**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**VG-611** Aliphatic Polyisocyanate Resin (74.8%), Butyl Acetate (6.9%), Ethyl Acetate (13.8%), Ethylene Glycol Monobutyl Ether Acetate (4.3%\*), 1, 6 Hexamethylene Diisocyanate (0.1%\*)  
**GAL WT: 9.08 WT PCT SOLIDS: 74.99 VOL PCT SOLIDS: 69.73**  
**SOLVENT DENSITY: 7.49 VOC LE: 2.3 VOC AP: 2.3**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**VG-511** Aliphatic Polyisocyanate Resin (39.0%), Aromatic Hydrocarbon-B (1.4%), Butyl Acetate (6.2%), Ethyl Acetate (13.2%), Ethylbenzene (0.7%\*), Propylene Glycol Monomethyl Ether Acetate (18.0%), Toluene (17.0%\*), Xylene (3-4%\*)  
**GAL WT: 8.26 WT PCT SOLIDS: 39.13 VOL PCT SOLIDS: 33.13**  
**SOLVENT DENSITY: 7.52 VOC LE: 5.0 VOC AP: 5.0**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VG-6005** Aliphatic Polyisocyanate Resin (89.8%), Aromatic Hydrocarbon-B (3.2%), Butyl Acetate (5.0%), 1, 6 Hexamethylene Diisocyanate (0.2%\*), 1,2,4-Trimethyl Benzene (1-2%\*)

**GAL WT: 9.44 WT PCT SOLIDS: 90.00 VOL PCT SOLIDS: 87.05**  
**SOLVENT DENSITY: 7.29 VOC LE: 0.9 VOC AP: 0.9**  
**FLASH POINT: 100°F - 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VGM-6005** Aliphatic Polyisocyanate Resin (89.8%), Aromatic Hydrocarbon-B (3.2%), Butyl Acetate (5.0%), 1, 6 Hexamethylene Diisocyanate (0.2%\*), 1,2,4-Trimethyl Benzene (1-2%\*)

**GAL WT: 9.44 WT PCT SOLIDS: 90.00 VOL PCT SOLIDS: 87.04**  
**SOLVENT DENSITY: 7.29 VOC LE: 0.9 VOC AP: 0.9**  
**FLASH POINT: 100°F - 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VH-Y-691** Dibutyl Tin Dilaurate (1.6%), Ethyl Acetate (98.4%)

**GAL WT: 7.49 WT PCT SOLIDS: 1.55 VOL PCT SOLIDS: 1.33**  
**SOLVENT DENSITY: 7.47 VOC LE: 7.4 VOC AP: 7.4**  
**FLASH POINT: 20°F to below 73°F H: 1 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**1189S** 2,4-Pentanedione (99.7%)

**GAL WT: 8.12 WT PCT SOLIDS: 0.27 VOL PCT SOLIDS: 0.25**  
**SOLVENT DENSITY: 8.12 VOC LE: 8.1 VOC AP: 8.1**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**389S** Dibutyl Tin Dilaurate (1.0%), 2,4-Pentanedione (99.0%)

**GAL WT: 8.13 WT PCT SOLIDS: 1.00 VOL PCT SOLIDS: 0.93**  
**SOLVENT DENSITY: 8.12 VOC LE: 8.0 VOC AP: 8.0**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**610P** Acrylic Polymer-B (50.1%), Aromatic Hydrocarbon-B (9.7%), Butyl Acetate (7.2%), Ethylbenzene (0.9%\*), Ethylene Glycol Monobutyl Ether Acetate (4.6%\*), Methyl Ethyl Ketone (13.9%\*), Xylene (4-5%\*), 1,2,4-Trimethyl Benzene (2-7%\*), Tinuvin 900 (1.2%)  
**GAL WT: 8.09 WT PCT SOLIDS: 52.82 VOL PCT SOLIDS: 46.32**  
**SOLVENT DENSITY: 7.11 VOC LE: 3.8 VOC AP: 3.8**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**611P** Acrylic Polymer-B (50.6%), Butanedioic Acid, Dimethyl Ester (1.1%), Butyl Acetate (4.3%), Dibasic Ester (3.3%), Ethylene Glycol Monobutyl Ether Acetate (2.5%\*), Methyl Amyl Ketone (24.4%), Methyl Ethyl Ketone (2.9%\*), Substituted Benzotriazole (1.3%), Toluene (4.8%\*)  
**GAL WT: 8.13 WT PCT SOLIDS: 53.38 VOL PCT SOLIDS: 46.99**  
**SOLVENT DENSITY: 7.15 VOC LE: 3.8 VOC AP: 3.8**  
**FLASH POINT: 20°F to below 73°F H: 1 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**613P** Acrylic Polymer-B (36.0%), Amorphous Silica (21.4%), Butyl Acetate (3.1%), Dibasic Ester (2.4%), Ethylbenzene (0.1%\*), Ethylene Glycol Monobutyl Ether Acetate (1.8%\*), Methyl Amyl Ketone (19.0%), Methyl Ethyl Ketone (7.6%\*), Toluene (3.0%\*)  
**GAL WT: 9.02 WT PCT SOLIDS: 59.49 VOL PCT SOLIDS: 48.24**  
**SOLVENT DENSITY: 7.07 VOC LE: 3.7 VOC AP: 3.7**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

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## IMRON® ACTIVATORS, CLEARS AND ADDITIVES

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**193S** Aliphatic Polyisocyanate Resin (74.8%), Butyl Acetate (6.9%), Ethyl Acetate (13.8%), Ethylene Glycol Monobutyl Ether Acetate (4.3%\*<sup>@</sup>), 1, 6 Hexamethylene Diisocyanate (0.2%\*<sup>@</sup>)

**GAL WT: 9.01 WT PCT SOLIDS: 74.99 VOL PCT SOLIDS: 69.95**

**SOLVENT DENSITY: 7.49 VOC LE: 2.3 VOC AP: 2.3**

**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE: IB**

**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**731P** Acrylic Polymer-A (8.4%), Hydrous Magnesium Silicate (49.9%), Methyl Ethyl Ketone (19.3%\*<sup>@</sup>), Propylene Glycol Monomethyl Ether Acetate (20.4%)

**GAL WT: 11.55 WT PCT SOLIDS: 59.42 VOL PCT SOLIDS: 35.77**

**SOLVENT DENSITY: 7.30 VOC LE: 4.7 VOC AP: 4.7**

**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IA**

**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**VGF17761** Ethylbenzene (2.5-6.3%\*<sup>@</sup>), Silicone Resin (18.7%), Xylene (75-79%\*<sup>@</sup>)

**GAL WT: 7.49 WT PCT SOLIDS: 18.75 VOL PCT SOLIDS: 15.32**

**SOLVENT DENSITY: 7.19 VOC LE: 6.1 VOC AP: 6.1**

**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IA**

**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**RT002P** Ethylbenzene (16.9%\*<sup>@</sup>), Silicone Resin (1.5%), Xylene (75-89%\*<sup>@</sup>)

**GAL WT: 7.24 WT PCT SOLIDS: 1.50 VOL PCT SOLIDS: 1.19**

**SOLVENT DENSITY: 7.22 VOC LE: 7.1 VOC AP: 7.1**

**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**

**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**RK-29000** Acetone (14.3%), Acrylic Polymer-B (35.3%), Amorphous Silica (16.4%), Butyl Acetate (3.0%), Ethylbenzene (0.1%\*<sup>@</sup>), Methylamyl Ketone (18.3%), Synthetic Amorphous Silica (3.8%), Toluene (3.7%\*<sup>@</sup>)

**GAL WT: 8.76 WT PCT SOLIDS: 57.53 VOL PCT SOLIDS: 45.48**

**SOLVENT DENSITY: 6.81 VOC LE: 3.1 VOC AP: 2.5**

**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**

**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

### Footnotes:

**TSCA: in compliance** = In compliance with TSCA Inventory requirements for commercial purposes.

**ACGIH** = American Conference of Government Industrial Hygienists.

**IARC** = International agency for Research on Cancer.

**NTP** = National Toxicology Program.

**OSHA** = Occupational Safety and Health Administration.

**PNOR** = Particles Not Otherwise Regulated.

**PNOC** = Particles Not Otherwise Classified.

**STEL** = Short Term Exposure Limit.

**TWA** = Time Weighted Average.

\* = Section 313 Supplier Notification: These chemicals are subject to the reporting requirements of Section 313 of the Emergency planning and Right-to-Know act of 1986 and of 40 CFR 372.

@ = Clean Air Act Hazardous Air Pollutant.

# = EPCRA Section 302 - Extremely Hazardous Substance.

### NOTICE:

The information on this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

**Product Manager - Refinish Sales**

**Prepared by: E. L. Taylor**

**DuPont Performance Coatings  
MATERIAL SAFETY DATA SHEET  
EPOXY PRIMERS, ENAMELS, AND ACTIVATORS**

**SECTION 1 - Product and Company Identification**

Manufacturer: E.I. DuPont de Nemours & Co.  
DuPont Performance Coatings  
Wilmington, DE, 19898

Telephone: Product Information: (800) 441-7515  
Medical Emergency: (800) 441-3637  
Transportation Emergency: (800) 424-9300  
(CHEMTREC)

Product: **EPOXY PRIMERS, ENAMELS, AND ACTIVATORS**

DOT Shipping Name: See DOT addendum.

Hazardous Materials Information: See Section 10.

AMORPHOUS SILICA-B

92797-60-9

None

Respirable  
O 5.0 mg/m<sup>3</sup>  
Respirable

AMORPHOUS SILICA - FUMED

69012-64-2

None

O 1.0 mg/m<sup>3</sup>  
15 min STEL  
O 15.0 mg/m<sup>3</sup>  
A 0.2 mg/m<sup>3</sup>  
Respirable

O 2.0 mg/m<sup>3</sup>  
TWAE  
Respirable  
D 1.0 mg/m<sup>3</sup>  
Respirable Dus  
A 2.0 mg/m<sup>3</sup>  
Respirable Dus

**SECTION 2 - Composition, Information on Ingredients**

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS				
				AROMATIC HYDROCARBON-A	64742-94-5	10.0	D 100.0 ppm A None O None
ACRYLIC POLYMER-A	26010-51-5	None	A None O None				
				AROMATIC HYDROCARBON-B	64742-95-6	10.0 @ 25.0°C	D 50.0 ppm A None O None
ACRYLIC POLYMER-B	42767-92-0	None	A None O None				
				BARIUM SULFATE	7727-43-7	None	D 10.0 mg/m <sup>3</sup> A 10.0 mg/m <sup>3</sup> Total Dust O 15.0 mg/m <sup>3</sup> Total Dust O 5.0 mg/m <sup>3</sup> Respirable Dus
ACRYLIC POLYMER-C	148969-95-3	None	A None O None				
ALUMINUM	7429-90-5	None	A 10.0 mg/m <sup>3</sup> O None				
				BENZYL ALCOHOL	100-51-6	0.1 @ 30.0°C	D 10.0 ppm A None O None
ALUMINUM HYDRATE	21645-51-2	None	A None O None				
AMIDOAMINE RESIN-A	Not Avail	None	A None O None	BISPHENOL A/EPICHLOROHYDRIN POLYMER	25036-25-3	2.7 @ 23.9°C	A None O None
AMIDOAMINE RESIN-B	64754-99-0	None	A None O None	BISPHENOL-EPICHLOROHYDRIN TYPE POLYMER	25068-38-6	None	A None O None
AMIDOAMINE RESIN-C	68443-08-3	None	A None O None	BLACK IRON OXIDE	1317-61-9	None	A None O None
AMINE SALT OF POLYCARBONIC ACID	Not Avail	None	A None O None	BUTYL ACETATE	123-86-4	10.0	A 200.0 ppm 15 min STEL A 150.0 ppm O 150.0 ppm
AMORPHOUS SILICA-A	7631-86-9	None	A 1.0 mg/m <sup>3</sup> 15 min STEL O 15.0 mg/m <sup>3</sup> A 0.2 mg/m <sup>3</sup>	CALCIUM CARBONATE	471-34-1	None	A 10.0 mg/m <sup>3</sup> O 15.0 mg/m <sup>3</sup>

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			A 5.0 mg/m <sup>3</sup> Respirable	MONOBUTYLETHER	111-76-2	0.6	D 5.0 ppm Skin
CALCIUM PHOSPHOSILICATE	Not Avail	None	A None O None				A 20.0 ppm Skin O 50.0 ppm Skin
CARBON BLACK	1333-86-4	None	A 3.5 mg/m <sup>3</sup> O 3.5 mg/m <sup>3</sup> D 0.5 mg/m <sup>3</sup> 8 & 12 hour TWA	GLYCIDYL ESTER OF TERT CARBOXYLIC ACID 26761-45-5		2.5 @ 212.0°F	A None O None
CUMENE	98-82-8	3.7	A 50.0 ppm O 50.0 ppm Skin	GLYCIDYL ETHER OF ALKYL PHENOL 171263-24-1		None	A None O None
DIACETONE ALCOHOL	123-42-2	1.1 @ 200.0°C	A None O None	HYDROUS MAGNESIUM SILICATE 14807-96-6		None	A 2.0 mg/m <sup>3</sup> Respirable D 0.5 mg/m <sup>3</sup> 8 & 12 hour TWA Respirable Dust O None
DIATOMACEOUS EARTH	7631-86-9	None	A 1.0 mg/m <sup>3</sup> 15 min STEL O 15.0 mg/m <sup>3</sup> A 0.2 mg/m <sup>3</sup> Respirable O 5.0 mg/m <sup>3</sup> Respirable	IRON OXIDE 1309-37-1		None	A 5.0 mg/m <sup>3</sup> O 10.0 mg/m <sup>3</sup>
DIISOBUTYL KETONE	108-83-8	1.7	A 25.0 ppm O 50.0 ppm	ISOINDOLINONE PIGMENT 36888-99-0		None	A None O None
DIOCTYL PHTHALATE	117-81-7	1.2	A 5.0 mg/m <sup>3</sup> D 1.0 mg/m <sup>3</sup> 8 & 12 hour TWA O None	ISOPROPYL ALCOHOL 67-63-0		33.0	A 500.0 ppm 15 min STEL A 400.0 ppm O 400.0 ppm D 400.0 ppm 8 & 12 hour TWA
EPOXY HARDENER	1477-55-0	None	A 0.1 mg/m <sup>3</sup> TWA Skin O 0.1 mg/m <sup>3</sup> TWA Skin	KAOLIN 1332-58-7		None	A 2.0 mg/m <sup>3</sup> O None
ETHYL ACETATE	141-78-6	76.0	A 400.0 ppm O 400.0 ppm	MEDIUM MINERAL SPIRITS 64742-88-7		10.0	D 100.0 ppm A None O None
ETHYLBENZENE	100-41-4	7.0	A 125.0 ppm 15 min STEL A 100.0 ppm O 100.0 ppm D 25.0 ppm 8 & 12 hour TWA	METHYL AMYL KETONE 110-43-0		2.1	A 50.0 ppm O 100.0 ppm
ETHYLENE GLYCOL				METHYL ETHYL KETONE 78-93-3		71.0 @ 0.0	A 300.0 ppm 15 min STEL D 300.0 ppm 15 min TWA A 200.0 ppm O 200.0 ppm D 200.0 ppm 8 & 12 hour TWA

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1-METHYL ISOBUTYL KETONE	108-10-1	15.0	A 75.0 ppm 15 min STEL A 50.0 ppm O 100.0 ppm	POLYAMIDE RESIN	68410-23-1	None	PNOC A None O None
MICA	12001-26-2	None	A 3.0 mg/m <sup>3</sup> Respirable Mass O None	PROPYLENE CARBONATE	108-32-7	0.0	A None O None
MONOAZO PIGMENT	12236-62-3	None	A 10.0 mg/m <sup>3</sup> O None	PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	3.7	D 10.0 ppm 12 hr TWA A None O None
N-BUTYL ALCOHOL	71-36-3	4.2 @ 68.0°F	D 50.0 ppm 15 min TWA D 25.0 ppm A 50.0 ppm CEIL Skin O 50.0 ppm CEIL Skin	QUARTZ-CRYSTALLINE SILICA	14808-60-7	None	O 0.1 mg/m <sup>3</sup> Respirable Dus A 50.0 ug/m <sup>3</sup> Respirable Dus
NAPHTHALENE	91-20-3	1.0 @ 52.6°C	A 10.0 ppm O 10.0 ppm D 0.1 ppm 8 & 12 hour TWA	QUINACRIDONE PIGMENT	1047-16-1	None	O 15.0 mg/m <sup>3</sup> Total Dust PNOR A 10.0 mg/m <sup>3</sup> Inhalable Particulate A 3.0 mg/m <sup>3</sup> Respirable Particulate
ORGANOCLAY	68911-87-5	None	A None O None	TETRAETHYLENEPENTAMINE	112-57-2	None	A None O None
ORGANOPHILIC CLAY	Not Avail	None	A None O None	TITANIUM DIOXIDE	13463-67-7	None	A 10.0 mg/m <sup>3</sup> D 5.0 mg/m <sup>3</sup> Respirable D 10.0 mg/m <sup>3</sup> Total Dust O 15.0 mg/m <sup>3</sup> Total Dust SiO <sub>2</sub>
PARA-NONYLPHENOL	84852-15-3	None	A None O None	TITANIUM DIOXIDE/ALUMINUM HYDRATE/AMORPHOUS SILICA	Not Avail	None	A None O None
PHENOLIC POLYMER	9003-35-4	None	A None O None	TOFA, REACTION PRODUCTS W/TEPA	68953-36-6	20.6 @ 21.0°C	A None O None
PHTHALOCYANINE BLUE PIGMENT	147-14-8	None	O 5.0 mg/m <sup>3</sup> TWA Respirable PNOR O 15.0 mg/m <sup>3</sup> Total Dust PNOR A 10.0 mg/m <sup>3</sup> Inhalable Particulate PNOC A 3.0 mg/m <sup>3</sup> Respirable Particulate	TOLUENE	108-88-3	22.0	O 300.0 ppm CEIL O 200.0 ppm D 50.0 ppm 8 & 12 hour TWA A 50.0 ppm Skin O 500.0 ppm

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			10 min TWA Maximum
TRADE SECRET	Not Avail	7.5 @ 21.0°F	A None O None
UREA FORMALDEHYDE RESIN	Not Avail	5.5	A None O None
XYLENE	1330-20-7	9.0 @ 25.0°C	A 100.0 ppm TWA A 150.0 ppm 15 min STEL D 150.0 ppm 15 min STEL O 100.0 ppm D 100.0 ppm 8 & 12 hour TWA
ZINC OXIDE	1314-13-2	None	O 5.0 mg/m <sup>3</sup> Respirable A 10.0 mg/m <sup>3</sup> Total Dust O 15.0 mg/m <sup>3</sup> Total Dust
1,2,4-TRIMETHYL BENZENE	95-63-6	7.0 @ 44.4°C	A 25.0 ppm O 25.0 ppm
2-ETHYLHEXYL GLYCIDYL ETHER	Not Avail	None	A None O None
2,4,6-DIMETHYLAMINOMETHYL PHENOL	Not Avail	0.0 @ 21.0°C	A None O None
4,6-DIMETHYL-2-HEPTANONE	19549-80-5	None	A None O None

\*A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @25°C unless otherwise noted.

## SECTION 3 - Hazards Information

### Potential Health Effects:

#### Inhalation:

May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

#### Ingestion:

May result in gastrointestinal distress.

#### Skin or eye contact:

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

### Other Potential Health Effects in addition to those listed above:

#### ACRYLIC POLYMER-B

Skin contact may cause any of the following: mild irritation

#### AMIDOAMINE RESIN-B

Contact may cause skin irritation with discomfort or rash. Causes eye corrosion and permanent injury.

#### AMIDOAMINE RESIN-C

Contact may cause skin irritation with discomfort or rash. Contact may cause skin burns. Causes eye corrosion and permanent injury. Causes severe eye irritation.

#### AROMATIC HYDROCARBON-A

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

#### AROMATIC HYDROCARBON-B

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

#### BENZYL ALCOHOL

Material is irritating to mucous membranes and upper respiratory tract. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Contact may cause skin irritation with discomfort or rash. May cause eye irritation with discomfort, tearing, or blurred vision. May be a weak skin sensitizer. Skin permeation can occur in amounts capable of producing the effects of systemic toxicity.

#### BISPHENOL A/EPICHLOROHYDRIN POLYMER

Has shown mutagenic activity in laboratory cell culture tests. Repeated exposure may cause allergic skin rash, itching, swelling.

#### BISPHENOL-EPICHLOROHYDRIN TYPE POLYMER

Repeated exposure may cause allergic skin rash, itching, swelling.

#### BUTYL ACETATE

May cause abnormal liver function. The following medical conditions may be aggravated by exposure: respiratory system  
May cause eye irritation with discomfort, tearing, or blurred vision. Tests for embryotoxic activity in animals has been inconclusive. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

#### CARBON BLACK

Is an IARC, NTP or OSHA carcinogen.

#### CUMENE

Skin contact may cause any of the following: irritation discomfort rash  
Eye contact may cause any of the following: blurred vision irritation discomfort tearing



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### DIACETONE ALCOHOL

Recurrent overexposure may result in liver and kidney injury.

### DIATOMACEOUS EARTH

Repeated and prolonged overexposure may lead to chronic lung disease.

### DIISOBUTYL KETONE

The following medical conditions may be aggravated by exposure: asthma blood dermatitis  
Contact may cause skin irritation with discomfort or rash. Repeated exposure may cause allergic skin rash, itching, swelling. This substance may cause damage to any of the following organs/systems: eyes kidneys liver  
Extremely high oral and inhalation doses in laboratory animals have shown weight changes in various organs such as the liver, kidney, brain, heart and adrenal gland. In addition liver and kidney injury were observed at the extremely high inhalation level. In another inhalation study there was a slight depression in the white blood cell count. Liquid or vapor causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva.

### DIOCTYL PHTHALATE

Cancer hazard based on tests with laboratory animals. Overexposure may create cancer risk  
Tests in animals demonstrate reproductive toxicity.

### EPOXY HARDENER

If ingested, may be: moderately toxic  
Skin or eye contact may cause any of the following: severe irritation

### ETHYL ACETATE

Prolonged and repeated high exposures of laboratory animals resulted in secondary anemia with an increase in white blood cells; fatty degeneration, cloudy swelling and an excess of blood in various organs.

### ETHYLBENZENE

Is an IARC, NTP or OSHA carcinogen.  
Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system kidneys liver lungs  
Recurrent overexposure may result in liver and kidney injury. Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects.

### ETHYLENE GLYCOL MONOBUTYLETHER

Can be absorbed through the skin in harmful amounts.  
May cause injury to the kidneys, liver, blood and/or bone marrow. Repeated overexposure may result in damage to the blood. Eye contact may cause corneal injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

### GLYCIDYL ESTER OF TERT CARBOXYLIC ACID

May cause eye irritation with discomfort, tearing, or blurred vision. High doses in laboratory animals have shown non-specific effects such as irritation, weight loss, moderate blood changes.

### GLYCIDYL ETHER OF ALKYL PHENOL

Contact may cause skin irritation with discomfort or rash.  
May cause eye irritation with discomfort, tearing, or blurred vision.

### ISOPROPYL ALCOHOL

The following medical conditions may be aggravated by exposure:

dermatitis respiratory disease

Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact may cause skin irritation with discomfort or rash. Can be absorbed through the skin in harmful amounts. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver

Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights. Aspiration may occur during swallowing or vomiting, resulting in lung damage. May cause central nervous system depression with headache, stupor, uncoordinated or strange behavior, or unconsciousness. Irritating to the mouth, throat and stomach. May cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, coughing and possibly accompanied by chest pain. Prolonged or repeated skin contact may cause drying, cracking, or irritation. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness. Swallowing significant amounts of substance could cause serious injury, even death.

### MEDIUM MINERAL SPIRITS

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

### METHYL AMYL KETONE

Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.  
Over exposure may cause eye, nose and throat irritation. Repeated or prolonged liquid contact may cause skin irritation and dermatitis. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Repeated and prolonged overexposure to solvents may lead to permanent brain and nervous system damage. Prolonged or repeated skin contact may cause drying, cracking, or irritation. Inhalation of high vapor concentrations may cause any of the following: drowsiness irritation

### METHYL ETHYL KETONE

Material is irritating to mucous membranes and upper respiratory tract. Persons with certain types of neurological disease such as multiple sclerosis should consult a physician prior to exposure. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system eyes respiratory system skin  
Contact may cause skin irritation with discomfort or rash. Can irritate or burn eyes. Prolonged or repeated overexposure may cause any of the following: conjunctivitis dermatitis  
High concentrations have caused embryotoxic effects in laboratory animals. Methyl ethyl ketone has been demonstrated to potentiate (i.e., shorten the time of onset) the peripheral neuropathy caused by either n-hexane or methyl n-butyl ketone. MEK by itself has not been demonstrated to cause peripheral neuropathy. Mice that were force fed (gavage) showed teratogenic effects embryofetotoxicity and maternal toxicity. The no observed effect level was estimated to be 25g/50 kg (110 lb.) woman. Laboratory animals exposed to high airborne levels showed tissue changes in the nasal passages. Aspiration may occur during swallowing or vomiting, resulting in lung damage. May cause central nervous system depression with headache, stupor, uncoordinated or strange behavior, or unconsciousness.

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## METHYL ISOBUTYL KETONE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system livers  
Recurrent overexposure may result in liver and kidney injury.

## MICA

Repeated and prolonged overexposure may lead to chronic lung disease.

## N-BUTYL ALCOHOL

May cause abnormal blood forming function with anemia.  
Liquid splashes in the eye may result in chemical burns.

## NAPHTHALENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: kidneys liver  
Recurrent overexposure may result in liver and kidney injury.

## PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE

May cause eye irritation with discomfort, tearing, or blurred vision.  
May cause moderate eye burning.  
Recurrent overexposure may result in liver and kidney injury.  
May cause irritation of the upper respiratory passages.

## QUARTZ-CRYSTALLINE SILICA

Is an IARC, NTP or OSHA carcinogen.  
Repeated overexposure to crystalline silica may lead to typical x-ray changes and chronic lung disease.  
WARNING: This chemical is known to the State of California to cause cancer.

## TETRAETHYLENEPENTAMINE

Causes eye corrosion and permanent injury.  
Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning.  
Inhalation overexposure may cause lung injury, fluid in the lung, and difficulty in breathing.  
Inhalation of vapor may cause any of the following:

## TITANIUM DIOXIDE

In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m<sup>3</sup> respirable titanium dust. Analysis of the titanium dioxide concentrations in the rat's lungs showed that the lung clearance mechanism was overwhelmed and that the results at the massive 250 mg/m<sup>3</sup> level are not relevant to the workplace.  
Repeated or prolonged skin contact may cause any of the following: dryness cracking of the skin  
Eye contact may cause any of the following: blurred vision irritation discomfort tearing  
Inhalation may cause any of the following: breathing difficulties coughing  
Inhalation may cause irritation to any of the following: lungs nose throat

## TOFA, REACTION PRODUCTS W/TEPA

Contact may cause skin irritation with discomfort or rash.  
May cause eye irritation with discomfort, tearing, or blurred vision.

## TOLUENE

Chromosomal changes in the circulating blood of exposed workers have been reported. The significance of these reports is unclear because of exposure to other substances. Increased susceptibility to the effects of this material may be observed in people with preexisting

disease of any of the following: central nervous system kidneys liver respiratory system skin  
May cause eye irritation with discomfort, tearing, or blurred vision.  
Can be absorbed through the skin in harmful amounts.  
Recurrent overexposure may result in liver and kidney injury.  
High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed.  
WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

## UREA FORMALDEHYDE RESIN

This chemical is a formaldehyde donor. Formaldehyde is an IARC, NTP or OSHA carcinogen and has shown mutagenic activity in laboratory cell culture tests. Formaldehyde has produced tumors in the nasal passages of laboratory animals when exposed to high concentrations for a two year period. Epidemiology studies conducted to date have not found evidence of formaldehyde related tumor induction in humans.  
WARNING: This chemical is known to the State of California to cause cancer.

## XYLENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow cardiovascular system central nervous system kidneys liver lungs  
Can be absorbed through the skin in harmful amounts.  
Can irritate or burn eyes. Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heart beats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects to humans is not known. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

## ZINC OXIDE

May cause abnormal liver function.

## 2,4,6-DIMETHYLAMINOMETHYL PHENOL

Can be absorbed through the skin in harmful amounts.

### SECTION 4 - First Aid Measures

#### First Aid Procedures:

##### Inhalation:

If affected by inhalation of vapor or spray mist, move to fresh air.  
If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing difficulty persists, or occurs later, consult a physician.

##### Ingestion:

In the unlikely event of ingestion, DO NOT INDUCE VOMITING. Call a physician immediately and have names of ingredients available.

##### Skin or eye:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash thoroughly with soap and water. If irritation occurs, contact a physician.

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### SECTION 5 - Firefighting Measures

**Flash Point (Closed Cup)** See Section 11 for exact values.

**Flammable limits** LFL 0.0 % UFL 13.1 %

**Extinguishing media:**

Universal aqueous film-forming foam, carbon dioxide, drychemical.

**Fire fighting procedures:**

Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to prevent pressure build-up.

**Fire & explosion hazards:**

For flammable liquids, vapor/air will ignite when an ignition source is present. In other cases, when heated above the flash point, emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

### SECTION 6 - Accidental Release Measures

**Steps to be taken in case material is released or spilled:**

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor.

Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C), eye protection, gloves and protective clothing. Confine, remove with inert absorbent, and dispose of properly.

### SECTION 7 - Handling and Storage

**Precautions to be taken in handling and storing:**

Observe label precautions. If combustible (flashpoint between 100 - 200°F), keep away from heat, sparks and flame. If flammable (flashpoint less than 100°F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than 20°F) or flammable, VAPORS MAY IGNITE EXPLOSIVELY OR CAUSE FLASH FIRE, respectively. Vapors may spread long distances. Prevent buildup of vapors. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120°F. If product is waterbased, do not freeze.

**Other precautions:**

If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved respirator or appropriate ventilation, and gloves.

### SECTION 8 - Exposure Controls or Personal Protection

**Engineering controls and work practices:**

**Ventilation:**

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits.

**Respiratory:**

Do not breathe vapors or mists. If this product contains isocyanates or is used with an isocyanate activator/hardener, wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C) during spray application (or brush and roll application in poorly ventilated areas) and until all vapors and spray mist are exhausted. For mixing and brush and roll application in well ventilated areas or, if the product does not contain or is not mixed with an isocyanate activator/hardener, a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH TC-23C) may be used until all vapors are exhausted. In addition, for spray application when product does not contain or is not mixed with an isocyanate activator/hardener, a particulate filter (NIOSH

TC-84A) is needed with the organic vapor cartridges until all vapors and spray mist are exhausted. Follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed to vapor or spray mist if product contains or is mixed with isocyanate activators/hardeners.

**Protective clothing:**

Neoprene gloves and coveralls are recommended.

**Eye protection:**

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

### SECTION 9 - Physical and Chemical Properties

Evaporation Rate	Slower than Ether
Solubility in water	NIL
Vapor Density	Heavier than air
Approx. boiling range (°C)	No Data Available
Approx. freezing range (°C)	-92 - -88°C
Gallon weight (lbs./gal)	7.69 - 13.94
Specific gravity	0.92 - 1.67
Percent volatile by volume	1.79 - 52.39
Percent volatile by weight	0.96 - 43.55
Percent solids by volume	47.61 - 98.21
Percent solids by weight	56.46 - 99.05

### SECTION 10 - Stability and Reactivity

**Stability:**

Stable

**Incompatibility (materials to avoid):**

None reasonably foreseeable

**Hazardous decomposition products:**

CO, CO<sub>2</sub>, smoke, and oxides of any heavy metals that are reported in Section 2.

**Hazardous polymerization:**

Will not occur.

**Sensitivity to static discharge:**

For flammable materials (flashpoint less than 100°F) and combustibles (flashpoint between 100-200°F) if heated above the flashpoint, solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

**Sensitivity to mechanical impact:**

Not Applicable

### SECTION 11 - Additional Information

**PRODUCT CODE**

**INGREDIENTS (Product Specific)**

**1LB25P** Amidoamine Resin-B (14.8%), Amorphous Silica-A (1.6%), Aromatic Hydrocarbon-B (9.9%), Calcium Phosphosilicate (5.1%), Glycidyl Ether Of Alkyl Phenol (11.4%), Hydrous Magnesium Silicate (2.8%), Mica (18.6%), Quartz-Crystalline Silica (1.0%), Titanium Dioxide (25.3%), 1,2,4-Trimethyl Benzene (2-7%\*), 2-,4,6-Dimethylaminomethyl Phenol (1.6%)  
**GAL WT: 12.89 WT PCT SOLIDS: 83.97 VOL PCT SOLIDS: 71.37**  
**SOLVENT DENSITY: 7.22 VOC LE: 2.1 VOC AP: 2.1**  
**FLASH POINT: 100°F - 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **2MB25P** Amidoamine Resin-B (16.9%), Amorphous Silica-A (1.0%), Aromatic Hydrocarbon-B (11.0%), Calcium Phosphosilicate (6.1%), Cumene (0-1%\*@), Glycidyl Ether Of Alkyl Phenol (13.0%), Hydrous Magnesium Silicate (3.3%), Mica

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(23.1%), Quartz-Crystalline Silica (1.2%), Titanium Dioxide (14.2%), 1,2,4-Trimethyl Benzene (2.8%\*), 2,4,6-Dimethylaminomethyl Phenol (1.9%)

**GAL WT: 11.89 WT PCT SOLIDS: 82.16 VOL PCT SOLIDS: 70.60**  
**SOLVENT DENSITY: 7.22 VOC LE: 2.1 VOC AP: 2.1**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **3DB25P** Amidoamine Resin-B (18.9%), Aromatic Hydrocarbon-B (10.4%), Calcium Phosphosilicate (6.6%), Glycidyl Ether Of Alkyl Phenol (14.5%), Hydrous Magnesium Silicate (3.6%), Mica (26.6%), Quartz-Crystalline Silica (1.4%), Titanium Dioxide (7.5%), 1-,2,4-Trimethyl Benzene (2-7%\*), 2,4,6-Dimethylaminomethyl Phenol (2.1%)

**GAL WT: 11.47 WT PCT SOLIDS: 83.02 VOL PCT SOLIDS: 73.01**  
**SOLVENT DENSITY: 7.22 VOC LE: 1.9 VOC AP: 1.9**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **4NB25P** Amidoamine Resin-B (19.9%), Aromatic Hydrocarbon-B (12.6%), Calcium Phosphosilicate (6.9%), Cumene (0-1%\*@), Glycidyl Ether Of Alkyl Phenol (15.3%), Hydrous Magnesium Silicate (3.8%), Mica (28.7%), Quartz-Crystalline Silica (1.5%), 1,2,4-Trimethyl Benzene (2-9%\*), 2,4,6-Dimethylaminomethyl Phenol (2.2%)

**GAL WT: 10.75 WT PCT SOLIDS: 79.61 VOL PCT SOLIDS: 69.62**  
**SOLVENT DENSITY: 7.22 VOC LE: 2.2 VOC AP: 2.2**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **LF-6AL25P** Aluminum (24.9%\*), Amidoamine Resin-B (19.1%), Aromatic Hydrocarbon-B (8.1%), Calcium Phosphosilicate (6.8%), Glycidyl Ether Of Alkyl Phenol (14.5%), Hydrous Magnesium Silicate (3.7%), Medium Mineral Spirits (13.4%), 1,2,4-Trimethyl Benzene (1-6%\*), 2,4,6-Dimethylaminomethyl Phenol (2.0%)

**GAL WT: 9.81 WT PCT SOLIDS: 72.46 VOL PCT SOLIDS: 60.37**  
**SOLVENT DENSITY: 6.82 VOC LE: 2.7 VOC AP: 2.7**  
**FLASH POINT: 100°F – 14°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **LF-63225P** Amidoamine Resin-B (13.6%), Amorphous Silica-A (1.5%), Aromatic Hydrocarbon-B (9.1%), Glycidyl Ether Of Alkyl Phenol (10.5%), Mica (17.2%), Quartz-Crystalline Silica (0.9%), Titanium Dioxide (23.4%), Zinc Oxide (15.2%\*), 1,2,4-Trimethyl Benzene (1-7%\*), 2,4,6-Dimethylaminomethyl Phenol (1.5%)

**GAL WT: 13.54 WT PCT SOLIDS: 85.24 VOL PCT SOLIDS: 72.32**  
**SOLVENT DENSITY: 7.22 VOC LE: 2.0 VOC AP: 2.0**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **LF-63325P** Amidoamine Resin-B (16.6%), Aromatic Hydrocarbon-B (10.8%), Calcium Phosphosilicate (6.0%), Carbon Black (0.2%), Cumene (0-1%\*@), Glycidyl Ether Of Alkyl Phenol (12.8%), Hydrous Magnesium Silicate (3.3%), Mica (22.6%), Quartz-Crystalline Silica (1.2%), Titanium Dioxide (13.9%), 1,2,4-Trimethyl Benzene (2-8%\*), 2,4,6-Dimethylaminomethyl Phenol (1.8%)

**GAL WT: 11.90 WT PCT SOLIDS: 81.94 VOL PCT SOLIDS: 70.29**  
**SOLVENT DENSITY: 7.24 VOC LE: 2.1 VOC AP: 2.1**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **LF-63525P** Amidoamine Resin-B (14.6%), Amorphous Silica-A (1.6%), Aromatic Hydrocarbon-B (9.8%), Calcium Phosphosilicate (5.1%), Glycidyl Ether Of Alkyl Phenol (11.3%), Hydrous Magnesium Silicate (2.8%), Mica (18.5%), Quartz-Crystalline Silica (1.0%), Titanium Dioxide (25.1%), 1,2,4-Trimethyl Benzene (2-7%\*), 2-,4,6-Dimethylaminomethyl Phenol (1.6%)

**GAL WT: 12.90 WT PCT SOLIDS: 83.90 VOL PCT SOLIDS: 71.24**  
**SOLVENT DENSITY: 7.23 VOC LE: 2.1 VOC AP: 2.1**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **LF-63725P** Amidoamine Resin-B (14.7%), Amorphous Silica-A (1.6%), Aromatic Hydrocarbon-B (9.8%), Calcium Phosphosilicate (5.1%), Glycidyl Ether Of Alkyl Phenol (11.3%), Hydrous Magnesium Silicate (2.8%), Mica (18.6%), Quartz-Crystalline Silica (1.0%), Titanium Dioxide (25.2%), 1,2,4-Trimethyl Benzene (2-7%\*), 2-,4,6-Dimethylaminomethyl Phenol (1.6%)

**GAL WT: 12.89 WT PCT SOLIDS: 83.92 VOL PCT SOLIDS: 71.29**  
**SOLVENT DENSITY: 7.23 VOC LE: 2.1 VOC AP: 2.1**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

→ **LF-71125P** Amidoamine Resin-B (13.1%), Aromatic Hydrocarbon-B (8.9%), Barium Sulfate (26.8%), Calcium Phosphosilicate (5.6%), Glycidyl Ether Of Alkyl Phenol (10.1%), Hydrous Magnesium Silicate (3.1%), Iron Oxide (8.9%), Mica (13.8%), Quartz-Crystalline Silica (1.3%), 1,2,4-Trimethyl Benzene (1-6%\*), 2,4,6-Dimethylaminomethyl Phenol (1.4%)

**GAL WT: 13.94 WT PCT SOLIDS: 85.31 VOL PCT SOLIDS: 71.69**  
**SOLVENT DENSITY: 7.24 VOC LE: 2.0 VOC AP: 2.0**  
**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**525-333** Amidoamine Resin-B (8.5%), Barium Sulfate (24.7%), Calcium Phosphosilicate (6.1%), Diisobutyl Ketone (6.0%), Ethylene Glycol Monobutylether (8.4%\*@), Glycidyl Ether Of Alkyl Phenol (6.5%), Hydrous Magnesium Silicate (12.9%), Kaolin (10.9%), Methyl Amyl Ketone (5.2%), Methyl Ethyl Ketone (5.8%\*@), 2,4-,6-Dimethylaminomethyl Phenol (1.2%), 4,6-Dimethyl-2-Heptanone (1.5%)

**GAL WT: 12.33 WT PCT SOLIDS: 72.77 VOL PCT SOLIDS: 51.47**  
**SOLVENT DENSITY: 6.82 VOC LE: 3.4 VOC AP: 3.4**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**1LB26P** Aluminum Hydrate (1.3%), Amorphous Silica-A (2.1%), Aromatic Hydrocarbon-B (5.6%), Barium Sulfate (6.8%), Bisphenol-Epichlorohydrin Type Polymer (30.4%), Diacetone Alcohol (7.0%), Ethylbenzene (0.2%\*@), Hydrous Magnesium Silicate (4.1%), Titanium Dioxide (34.0%), Xylene (1-1%\*@), 1,2,4-Trimethyl Benzene (1-4%\*)

**GAL WT: 13.49 WT PCT SOLIDS: 80.85 VOL PCT SOLIDS: 65.18**  
**SOLVENT DENSITY: 7.25 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**2MB26P** Amorphous Silica-A (1.1%), Aromatic Hydrocarbon-B (5.1%), Barium Sulfate (15.4%), Bisphenol-Epichlorohydrin Type Polymer (33.3%), Diacetone Alcohol (7.9%), Ethylbenzene (0.2%\*@), Ethylene Glycol Monobutylether (1.4%\*@), Hydrous Magnesium Silicate (9.4%), Titanium Dioxide (17.8%), Xylene (1-2%\*@), 1,2-,4-Trimethyl Benzene (1-4%\*)

**GAL WT: 12.91 WT PCT SOLIDS: 79.96 VOL PCT SOLIDS: 65.25**  
**SOLVENT DENSITY: 7.29 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**

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**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**3DB26P** Aromatic Hydrocarbon-B (4.3%), Barium Sulfate (20.7%), Bisphenol Epichlorohydrin Type Polymer (34.2%), Diacetone Alcohol (8.6%), Ethylbenzene (0.2%\*<sup>@</sup>), Ethylene Glycol Monobutylether (1.9%\*<sup>@</sup>), Hydrous Magnesium Silicate (12.6%), Titanium Dioxide (9.2%), Xylene (1-2%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-3%\*)  
**GAL WT: 12.78 WT PCT SOLIDS: 80.02 VOL PCT SOLIDS: 65.81**  
**SOLVENT DENSITY: 7.31 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**4NB26P** Aromatic Hydrocarbon-B (2.8%), Barium Sulfate (25.9%), Bisphenol-Epichlorohydrin Type Polymer (36.8%), Diacetone Alcohol (9.3%), Ethylbenzene (0.2%\*<sup>@</sup>), Ethylene Glycol Monobutylether (2.3%\*<sup>@</sup>), Hydrous Magnesium Silicate (15.8%), Xylene (1-2%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (0-2%\*)  
**GAL WT: 12.64 WT PCT SOLIDS: 81.17 VOL PCT SOLIDS: 68.30**  
**SOLVENT DENSITY: 7.34 VOC LE: 2.4 VOC AP: 2.4**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63226P** Aluminum Hydrate (1.3%), Amorphous Silica-A (2.1%), Aromatic Hydrocarbon-B (5.9%), Barium Sulfate (6.8%), Bisphenol-Epichlorohydrin Type Polymer (30.0%), Diacetone Alcohol (7.0%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (4.1%), Titanium Dioxide (33.9%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-4%\*)  
**GAL WT: 13.44 WT PCT SOLIDS: 80.35 VOL PCT SOLIDS: 64.37**  
**SOLVENT DENSITY: 7.25 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63326P** Aluminum Hydrate (1.3%), Amorphous Silica-A (2.0%), Aromatic Hydrocarbon-B (5.4%), Barium Sulfate (7.2%), Bisphenol-Epichlorohydrin Type Polymer (29.4%), Carbon Black (0.2%), Diacetone Alcohol (6.8%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (4.0%), Titanium Dioxide (33.0%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-4%\*)  
**GAL WT: 13.46 WT PCT SOLIDS: 80.56 VOL PCT SOLIDS: 64.80**  
**SOLVENT DENSITY: 7.28 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63526P** Aluminum Hydrate (1.3%), Amorphous Silica-A (2.1%), Aromatic Hydrocarbon-B (5.8%), Barium Sulfate (6.7%), Bisphenol-Epichlorohydrin Type Polymer (30.8%), Diacetone Alcohol (6.9%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (4.1%), Titanium Dioxide (33.3%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-4%\*)  
**GAL WT: 13.38 WT PCT SOLIDS: 80.63 VOL PCT SOLIDS: 65.04**  
**SOLVENT DENSITY: 7.26 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63726P** Aluminum Hydrate (1.3%), Amorphous Silica-A (2.0%), Aromatic Hydrocarbon-B (5.7%), Barium Sulfate (6.7%), Bisphenol-Epichlorohydrin Type Polymer (31.2%), Diacetone Alcohol (6.8%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (4.0%), Titanium Dioxide (33.0%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-4%\*)  
**GAL WT: 13.34 WT PCT SOLIDS: 80.71 VOL PCT SOLIDS: 65.32**  
**SOLVENT DENSITY: 7.26 VOC LE: 2.6 VOC AP: 2.6**

**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-64026P** Aromatic Hydrocarbon-B (6.0%), Barium Sulfate (34.1%), Bisphenol-Epichlorohydrin Type Polymer (28.6%), Carbon Black (1.0%), Diacetone Alcohol (7.2%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (2.7%), Kaolin (13.3%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-4%\*)  
**GAL WT: 13.59 WT PCT SOLIDS: 81.04 VOL PCT SOLIDS: 65.13**  
**SOLVENT DENSITY: 7.21 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-66226P** Acrylic Polymer-C (1.2%), Aromatic Hydrocarbon-B (6.7%), Barium Sulfate (10.5%), Bisphenol-Epichlorohydrin Type Polymer (36.4%), Diacetone Alcohol (8.4%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (6.4%), Isoindolinone Pigment (10.1%), Monoazo Pigment (5.7%), Titanium Dioxide (4.7%), Xylene (1-2%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-5%\*)  
**GAL WT: 11.21 WT PCT SOLIDS: 76.70 VOL PCT SOLIDS: 64.75**  
**SOLVENT DENSITY: 7.20 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-66326P** Acrylic Polymer-C (2.6%), Aromatic Hydrocarbon-B (7.2%), Bisphenol-Epichlorohydrin Type Polymer (39.5%), Butyl Acetate (1.3%), Diacetone Alcohol (7.5%), Ethylbenzene (0.2%\*<sup>@</sup>), Iron Oxide (1.5%), Monoazo Pigment (13.8%), Propylene Carbonate (1.3%), Titanium Dioxide (15.2%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-5%\*)  
**GAL WT: 10.64 WT PCT SOLIDS: 75.41 VOL PCT SOLIDS: 65.23**  
**SOLVENT DENSITY: 7.47 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-66426P** Acrylic Polymer-C (1.4%), Aromatic Hydrocarbon-B (6.6%), Barium Sulfate (10.4%), Bisphenol-Epichlorohydrin Type Polymer (39.5%), Diacetone Alcohol (9.5%), Ethylbenzene (0.2%\*<sup>@</sup>), Hydrous Magnesium Silicate (6.3%), Monoazo Pigment (7.2%), Quinacridone Pigment (8.1%), Titanium Dioxide (1.3%), Xylene (1-2%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-5%\*)  
**GAL WT: 10.61 WT PCT SOLIDS: 75.49 VOL PCT SOLIDS: 65.07**  
**SOLVENT DENSITY: 7.28 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-66526P** Aromatic Hydrocarbon-B (3.0%), Barium Sulfate (19.4%), Bisphenol A/Epichlorohydrin Polymer (3.1%), Bisphenol-Epichlorohydrin Type Polymer (29.2%), Diacetone Alcohol (8.1%), Ethyl Acetate (2.2%), Ethylbenzene (0.2%\*<sup>@</sup>), Ethylene Glycol Monobutylether (1.7%\*<sup>@</sup>), Hydrous Magnesium Silicate (11.8%), Isopropyl Alcohol (2.2%), Phthalocyanine Blue Pigment (1.3%), Titanium Dioxide (8.6%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (0-2%\*)  
**GAL WT: 12.33 WT PCT SOLIDS: 76.72 VOL PCT SOLIDS: 61.10**  
**SOLVENT DENSITY: 7.25 VOC LE: 2.9 VOC AP: 2.9**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-66626P** Aromatic Hydrocarbon-B (4.1%), Barium Sulfate (19.1%), Bisphenol-Epichlorohydrin Type Polymer (34.6%), Diacetone Alcohol (9.1%), Ethylbenzene (0.1-0.2%\*<sup>@</sup>), Ethylene Glycol Monobutylether (1.7%\*<sup>@</sup>),

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Hydrous Magnesium Silicate (11.7%), Iron Oxide (1.1%), Titanium Dioxide/Aluminum Hydrate/Amorphous Silica (9.3%), Xylene (1-1%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (1-3%\*<sup>@</sup>)  
**GAL WT: 12.60 WT PCT SOLIDS: 79.64 VOL PCT SOLIDS: 65.88**  
**SOLVENT DENSITY: 7.53 VOC LE: 2.6 VOC AP: 2.6**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-6AL90P** Aluminum (4.6%\*), Amorphous Silica-A (1.5%), Bisphenol-Epichlorohydrin Type Polymer (48.4%), Dioctyl Phthalate (7.7%\*), Ethylbenzene (1.0%\*<sup>@</sup>), Medium Mineral Spirits (2.5%), Organophilic Clay (3.8%), Quartz-Crystalline Silica (24.9%), Xylene (4-5%\*<sup>@</sup>)  
**GAL WT: 11.11 WT PCT SOLIDS: 90.83 VOL PCT SOLIDS: 85.24**  
**SOLVENT DENSITY: 6.91 VOC LE: 1.0 VOC AP: 1.0**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-64090P** Bisphenol-Epichlorohydrin Type Polymer (44.1%), Black Iron Oxide (6.9%), Dioctyl Phthalate (7.0%\*), Ethylbenzene (0.8%\*<sup>@</sup>), Organophilic Clay (3.8%), Quartz-Crystalline Silica (32.2%), Xylene (3-4%\*<sup>@</sup>)  
**GAL WT: 12.20 WT PCT SOLIDS: 93.97 VOL PCT SOLIDS: 89.61**  
**SOLVENT DENSITY: 7.07 VOC LE: 0.7 VOC AP: 0.7**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63290P** Bisphenol-Epichlorohydrin Type Polymer (43.3%), Dioctyl Phthalate (6.9%\*), Ethylbenzene (0.8%\*<sup>@</sup>), Organophilic Clay (3.8%), Quartz-Crystalline Silica (19.3%), Titanium Dioxide (19.5%), Xylene (3-4%\*<sup>@</sup>)  
**GAL WT: 12.56 WT PCT SOLIDS: 93.95 VOL PCT SOLIDS: 89.27**  
**SOLVENT DENSITY: 7.09 VOC LE: 0.8 VOC AP: 0.8**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63790P** Bisphenol-Epichlorohydrin Type Polymer (43.1%), Dioctyl Phthalate (6.9%\*), Ethylbenzene (0.8%\*<sup>@</sup>), Organophilic Clay (3.8%), Quartz-Crystalline Silica (19.2%), Titanium Dioxide (19.5%), Xylene (3-4%\*<sup>@</sup>)  
**GAL WT: 12.55 WT PCT SOLIDS: 93.97 VOL PCT SOLIDS: 89.31**  
**SOLVENT DENSITY: 7.09 VOC LE: 0.8 VOC AP: 0.8**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-71190P** Bisphenol-Epichlorohydrin Type Polymer (43.6%), Dioctyl Phthalate (7.0%\*), Ethylbenzene (0.8%\*<sup>@</sup>), Iron Oxide (10.3%), Organophilic Clay (3.7%), Quartz-Crystalline Silica (29.3%), Xylene (4-4%\*<sup>@</sup>)  
**GAL WT: 12.36 WT PCT SOLIDS: 93.90 VOL PCT SOLIDS: 89.37**  
**SOLVENT DENSITY: 7.09 VOC LE: 0.7 VOC AP: 0.7**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**LF-63590P** Bisphenol-Epichlorohydrin Type Polymer (43.0%), Dioctyl Phthalate (6.9%\*), Ethylbenzene (0.8%\*<sup>@</sup>), Organophilic Clay (3.8%), Quartz-Crystalline Silica (19.2%), Titanium Dioxide (19.4%), Xylene (3-4%\*<sup>@</sup>)

**GAL WT: 12.57 WT PCT SOLIDS: 93.99 VOL PCT SOLIDS: 89.33**  
**SOLVENT DENSITY: 7.09 VOC LE: 0.8 VOC AP: 0.8**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**823Y67632** Barium Sulfate (9.7%), Bisphenol A/Epichlorohydrin Polymer (25.3%), Ethyl Acetate (6.6%), Hydrous Magnesium Silicate (13.3%), Isopropyl Alcohol (3.5%), N-Butyl Alcohol (5.6%\*), Propylene Glycol Monomethyl Ether Acetate (10.3%), Titanium Dioxide (17.0%), Toluene (4.9%\*<sup>@</sup>)  
**GAL WT: 11.95 WT PCT SOLIDS: 68.01 VOL PCT SOLIDS: 47.93**  
**SOLVENT DENSITY: 7.34 VOC LE: 3.8 VOC AP: 3.8**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**823Y67633** Barium Sulfate (9.3%), Bisphenol A/Epichlorohydrin Polymer (25.9%), Carbon Black (0.2%), Ethyl Acetate (6.9%), Hydrous Magnesium Silicate (12.7%), Isopropyl Alcohol (3.7%), N-Butyl Alcohol (5.7%\*), Propylene Glycol Monomethyl Ether Acetate (10.0%), Titanium Dioxide (16.1%), Toluene (5.1%\*<sup>@</sup>)  
**GAL WT: 11.79 WT PCT SOLIDS: 67.44 VOL PCT SOLIDS: 47.61**  
**SOLVENT DENSITY: 7.32 VOC LE: 3.8 VOC AP: 3.8**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**823Y67635** Barium Sulfate (9.6%), Bisphenol A/Epichlorohydrin Polymer (25.3%), Ethyl Acetate (6.8%), Hydrous Magnesium Silicate (13.2%), Isopropyl Alcohol (3.5%), N-Butyl Alcohol (5.6%\*), Propylene Glycol Monomethyl Ether Acetate (10.2%), Titanium Dioxide (16.8%), Toluene (4.9%\*<sup>@</sup>)  
**GAL WT: 11.93 WT PCT SOLIDS: 67.85 VOL PCT SOLIDS: 47.72**  
**SOLVENT DENSITY: 7.33 VOC LE: 3.8 VOC AP: 3.8**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**823Y67637** Barium Sulfate (9.7%), Bisphenol A/Epichlorohydrin Polymer (25.3%), Ethyl Acetate (6.9%), Hydrous Magnesium Silicate (13.2%), Isopropyl Alcohol (3.5%), N-Butyl Alcohol (5.6%\*), Propylene Glycol Monomethyl Ether Acetate (10.2%), Titanium Dioxide (16.8%), Toluene (4.9%\*<sup>@</sup>)  
**GAL WT: 11.91 WT PCT SOLIDS: 67.74 VOL PCT SOLIDS: 47.64**  
**SOLVENT DENSITY: 7.33 VOC LE: 3.8 VOC AP: 3.8**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VF-333** Barium Sulfate (12.0%), Bisphenol-Epichlorohydrin Type Polymer (19.4%), Diisobutyl Ketone (4.3%), Ethyl Acetate (3.4%), Ethylene Glycol Monobutylether (12.4%\*<sup>@</sup>), Hydrous Magnesium Silicate (10.4%), Kaolin (11.8%), Methyl Ethyl Ketone (2.8%\*<sup>@</sup>), Phenolic Polymer (8.0%), Titanium Dioxide (8.6%), Urea Formaldehyde Resin (1.1%), 4,6-Dimethyl-2-Heptanone (1.1%)  
**GAL WT: 12.03 WT PCT SOLIDS: 74.67 VOL PCT SOLIDS: 57.33**  
**SOLVENT DENSITY: 7.01 VOC LE: 3.0 VOC AP: 3.0**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

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**VF-455** Barium Sulfate (11.7%), Bisphenol-Epichlorohydrin Type Polymer (19.1%), Ethyl Acetate (3.2%), Hydrous Magnesium Silicate (9.5%), Kaolin (11.6%), Methyl Ethyl Ketone(11.0%\*<sup>@</sup>), Phenolic Polymer(7.5%), Titanium Dioxide (8.4%), Toluene (11.8%\*<sup>@</sup>), Urea Formaldehyde Resin (1.1%)  
**GAL WT: 11.63 WT PCT SOLIDS: 72.36 VOL PCT SOLIDS: 53.87**  
**SOLVENT DENSITY: 6.86 VOC LE: 3.2 VOC AP: 3.2**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VF-525** Bisphenol-Epichlorohydrin Type Polymer(36.0%), Ethyl Acetate (6.4%), Hydrous Magnesium Silicate (27.9%), N-Butyl Alcohol (2.4%\*), Phenolic Polymer (14.9%), Toluene (10.0%\*<sup>@</sup>)  
**GAL WT: 10.69 WT PCT SOLIDS: 80.89 VOL PCT SOLIDS: 71.84**  
**SOLVENT DENSITY: 7.24 VOC LE: 2.0 VOC AP: 2.0**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VF-026** Acrylic Polymer-A (10.2%), Amidoamine Resin-C (20.9%), Amine Salt Of Polycarbonic Acid (1.0%), Amorphous Silica - Fumed (2.0%), Aromatic Hydrocarbon-A (1.0%), Aromatic Hydrocarbon-B (10.4%), Calcium Phosphosilicate (3.7%), Glycidyl Ester Of Tert Carboxylic Acid (10.7%), Hydrous Magnesium Silicate (5.6%), Kaolin (3.8%), Methyl Ethyl Ketone (9.0%\*<sup>@</sup>), Mica (9.4%), N-Butyl Alcohol (3.1%\*), Quartz-Crystalline Silica (0.5%), 1-,2,4-Trimethyl Benzene (2-7%\*), 2,4,6-Dimethylaminomethyl Phenol (2.2%)  
**GAL WT: 9.27 WT PCT SOLIDS: 70.45 VOL PCT SOLIDS: 60.91**  
**SOLVENT DENSITY: 7.00 VOC LE: 2.7 VOC AP: 2.7**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VG-026** Acrylic Polymer-A (25.6%), Amidoamine Resin-C (23.0%), Aromatic Hydrocarbon-B (11.3%), Cumene (0-1%\*<sup>@</sup>), Glycidyl Ester Of Tert Carboxylic Acid (11.8%), Methyl Ethyl Ketone (11.6%\*<sup>@</sup>), N-Butyl Alcohol (7.7%\*), 1,2,4-Trimethyl Benzene (2-8%\*), 2-,4,6-Dimethylaminomethyl Phenol (2.4%)  
**GAL WT: 7.86 WT PCT SOLIDS: 62.79 VOL PCT SOLIDS: 58.04**  
**SOLVENT DENSITY: 6.94 VOC LE: 2.9 VOC AP: 2.9**  
**FLASH POINT: 20°F to below 73°F H: 3 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**525-450** Amorphous Silica-B (1.1%), Bisphenol-Epichlorohydrin Type Polymer (24.7%), Calcium Carbonate (6.3%), Hydrous Magnesium Silicate (26.0%), Methyl Isobutyl Ketone (9.9%\*<sup>@</sup>), Organoclay (2.1%), Quartz-Crystalline Silica (2.7%), Titanium Dioxide (8.2%), Toluene (9.2%\*<sup>@</sup>), Xylene (8.2%\*<sup>@</sup>)  
**GAL WT: 11.88 WT PCT SOLIDS: 72.49 VOL PCT SOLIDS: 53.38**  
**SOLVENT DENSITY: 7.01 VOC LE: 3.3 VOC AP: 3.2**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**525-451** Amorphous Silica-B (1.1%), Bisphenol-Epichlorohydrin Type Polymer (24.7%), Calcium Carbonate (6.3%), Hydrous Magnesium Silicate (26.0%), Methyl Isobutyl Ketone (9.9%\*<sup>@</sup>), Organoclay (2.1%), Quartz-Crystalline Silica (2.7%), Titanium Dioxide (8.2%), Toluene (9.2%\*<sup>@</sup>), Xylene (8.2%\*<sup>@</sup>)

**GAL WT: 11.88 WT PCT SOLIDS: 72.49 VOL PCT SOLIDS: 53.38**  
**SOLVENT DENSITY: 7.01 VOC LE: 3.3 VOC AP: 3.2**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VG-400** Polyamide Resin (56.5%), Toluene (19.3%\*<sup>@</sup>), Xylene (24.2%\*<sup>@</sup>)  
**GAL WT: 7.69 WT PCT SOLIDS: 56.46 VOL PCT SOLIDS: 53.64**  
**SOLVENT DENSITY: 7.22 VOC LE: 3.3 VOC AP: 3.3**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**525-2420** Bisphenol-Epichlorohydrin Type Polymer (48.6%), Hydrous Magnesium Silicate (39.6%), Para-Nonylphenol (4.9%), 2-Ethylhexyl Glycidyl Ether (4.7%)  
**GAL WT: 12.30 WT PCT SOLIDS: 99.05 VOL PCT SOLIDS: 98.21**  
**SOLVENT DENSITY: 6.59 VOC LE: 0.1 VOC AP: 0.1**  
**FLASH POINT: Above 200°F H: 1 F: 1 R: 0 OSHA STORAGE: IIIB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**FG-090** Benzyl Alcohol (4.4%), Epoxy Hardener (2.0%), Ethylbenzene (0.2%\*<sup>@</sup>), Organophilic Clay (4.0%), Quartz-Crystalline Silica (44.5%), Tetraethylenepentamine (5.7%), Tofa, Reaction Products W/Tepa (32.6%), Trade Secret (3.4%), 2,4,6-Dimethylaminomethyl Phenol (2.4%)  
**GAL WT: 11.51 WT PCT SOLIDS: 94.67 VOL PCT SOLIDS: 92.67**  
**SOLVENT DENSITY: 8.39 VOC LE: 0.6 VOC AP: 0.6**  
**FLASH POINT: 100°F - 141°F H: 3 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VF-335** Barium Sulfate (11.9%), Bisphenol-Epichlorohydrin Type Polymer (19.2%), Carbon Black (0.1%), Ethyl Acetate (3.1%), Hydrous Magnesium Silicate (10.3%), Kaolin (11.7%), Methyl Ethyl Ketone (8.6%\*<sup>@</sup>), Phenolic Polymer (7.9%), Titanium Dioxide (8.5%), Toluene (11.7%\*<sup>@</sup>), Urea Formaldehyde Resin (1.1%)  
**GAL WT: 11.85 WT PCT SOLIDS: 74.30 VOL PCT SOLIDS: 56.47**  
**SOLVENT DENSITY: 6.88 VOC LE: 3.0 VOC AP: 3.0**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IB TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**FG-334** Acrylic Polymer-B (1.0%), Barium Sulfate (11.5%), Bisphenol Epichlorohydrin Type Polymer (18.6%), Diisobutyl Ketone (4.2%), Ethyl Acetate (3.3%), Ethylene Glycol Monobutylether (11.9%\*<sup>@</sup>), Hydrous Magnesium Silicate (9.9%), Kaolin (11.3%), Methyl Amyl Ketone (1.6%), Methyl Ethyl Ketone (2.7%\*<sup>@</sup>), Monoazo Pigment (1.4%), Phenolic Polymer (7.7%), Titanium Dioxide/Aluminum Hydrate/Amorphous Silica (9.0%), Urea Formaldehyde Resin (1.1%), 4,6-Dimethyl-2-Heptanone (1.0%)  
**GAL WT: 11.85 WT PCT SOLIDS: 74.05 VOL PCT SOLIDS: 56.99**  
**SOLVENT DENSITY: 7.15 VOC LE: 3.1 VOC AP: 3.1**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE:**  
**IA TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**525-A8603** Aromatic Hydrocarbon-A (22.5%), Bisphenol-Epichlorohydrin Type Polymer (48.8%), Diatomaceous Earth (5.7%), Ethylbenzene (0.8%\*<sup>@</sup>), Hydrous Magnesium Silicate (9.2%), Naphthalene (1-3%\*<sup>@</sup>), Quartz-Crystalline Silica (8.6%), 1,2,4-Trimethyl Benzene (0-3%\*)  
**GAL WT: 10.11 WT PCT SOLIDS: 73.12 VOL PCT SOLIDS: 63.22**  
**SOLVENT DENSITY: 7.38 VOC LE: 2.7 VOC AP: 2.7**

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**FLASH POINT: 100°F – 141°F H: 3 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**525-B8603** Amidoamine Resin-A (1.7%\*), Ethylbenzene (0.7%\*<sup>@</sup>), Hydrous Magnesium Silicate (33.8%), Iron Oxide (1.6%), N-Butyl Alcohol (24.9%\*), Polyamide Resin (16.4%), Quartz-Crystalline Silica (10.4%), Titanium Dioxide (7.4%)  
**GAL WT: 11.91 WT PCT SOLIDS: 73.65 VOL PCT SOLIDS: 53.64**  
**SOLVENT DENSITY: 6.74 VOC LE: 3.1 VOC AP: 3.1**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA**  
**STORAGE: IC TSCA STATUS: In compliance PHOTOCHEMICALLY**  
**REACTIVE: NO**

**525-A8601** Aromatic Hydrocarbon-A (19.3%), Bisphenol-Epichlorohydrin Type Polymer (51.0%), Ethylbenzene (0.8%\*<sup>@</sup>), Hydrous Magnesium Silicate (24.5%), Naphthalene (1-2%\*<sup>@</sup>), 1,2,4-Trimethyl Benzene (0-2%\*<sup>@</sup>)  
**GAL WT: 10.45 WT PCT SOLIDS: 76.83 VOL PCT SOLIDS: 67.22**  
**SOLVENT DENSITY: 7.38 VOC LE: 2.4 VOC AP: 2.4**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**525-B8601** Aluminum Hydrate (1.8%), Amidoamine Resin-A (1.8%\*), Ethylbenzene (0.6%\*<sup>@</sup>), Hydrous Magnesium Silicate (8.1%), N-Butyl Alcohol (25.8%\*), Polyamide Resin (16.4%), Quartz-Crystalline-Silica (5.7%), Titanium Dioxide (37.5%)  
**GAL WT: 12.46 WT PCT SOLIDS: 72.83 VOL PCT SOLIDS: 50.03**  
**SOLVENT DENSITY: 6.74 VOC LE: 3.4 VOC AP: 3.4**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA**  
**STORAGE: IC TSCA STATUS: In compliance PHOTOCHEMICALLY**  
**REACTIVE: NO**

**6AL90P** Aluminum (4.6%\*), Amorphous Silica-A (1.5%), Bisphenol-Epichlorohydrin Type Polymer (48.4%), Dioctyl Phthalate (7.7%\*), Ethylbenzene (1.0%\*<sup>@</sup>), Medium Mineral Spirits (2.5%), Organophilic Clay (3.8%), Quartz-Crystalline Silica (24.9%), Xylene (4-5%\*<sup>@</sup>)  
**GAL WT: 11.11 WT PCT SOLIDS: 90.83 VOL PCT SOLIDS: 85.24**  
**SOLVENT DENSITY: 6.91 VOC LE: 1.0 VOC AP: 1.0**  
**FLASH POINT: 100°F – 141°F H: 2 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

### Footnotes:

**TSCA: in compliance** = In compliance with TSCA Inventory requirements for commercial purposes.

**ACGIH** = American Conference of Government Industrial Hygienists.

**IARC** = International agency for Research on Cancer.

**NTP** = National Toxicology Program.

**OSHA** = Occupational Safety and Health Administration.

**PNOR** = Particles Not Otherwise Regulated.

**PNOC** = Particles Not Otherwise Classified.

**STEL** = Short Term Exposure Limit.

**TWA** = Time Weighted Average.

\* = Section 313 Supplier Notification: These chemicals are subject to the reporting requirements of Section 313 of the Emergency planning and Right-to-Know act of 1986 and of 40 CFR 372.

<sup>@</sup> = Clean Air Act Hazardous Air Pollutant.

# = EPCRA Section 302 - Extremely Hazardous Substance.

### NOTICE:

The information on this Material Safety Data Sheet relates only to the

specific material designated herein and does not relate to use in combination with any other material or in any process.

**Product Manager - Refinish Sales**

**Prepared by: E. L. Taylor**



**DuPont Performance Coatings  
MATERIAL SAFETY DATA SHEET  
THINNERS AND REDUCERS**

**SECTION 1 - Product and Company Identification**

Manufacturer:	E.I. DuPont de Nemours & Co. DuPont Performance Coatings Wilmington, DE, 19898	DIMETHYL GLUTARATE	1119-40-0	0.2	O None D 10.0 mg/m <sup>3</sup> A None O None
Telephone:	Product Information: (800) 441-7515 Medical Emergency: (800) 441-3637 Transportation Emergency: (800) 424-9300 (CHEMTREC)	ETHYL ACETATE	141-78-6	76.0	A 400.0 ppm O 400.0 ppm
Product:	<b>THINNERS AND REDUCERS</b>	ETHYLBENZENE	100-41-4	7.0	A 125.0 ppm 15 min STEL A 100.0 ppm O 100.0 ppm D 25.0 ppm 8 & 12 hour TWA
DOT Shipping Name:	See DOT addendum.				
Hazardous Materials Information:	See Section 10.				

**SECTION 2 - Composition, Information on Ingredients**

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS			
ACETONE	67-64-1	180.0@68.0°F	A 750.0 ppm 15 min STEL A 500.0 ppm O 1000.0 ppm D 500.0 ppm 8 & 12 hour TWA	ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	0.3	D 10.0 ppm Skin A None O None
AROMATIC HYDROCARBON-A	64742-94-5	10.0	D 100.0 ppm A None O None	ETHYLENE GLYCOL MONOBUTYLETHER 111-76-2	0.6	D 5.0 ppm Skin A 20.0 ppm Skin O 50.0 ppm Skin
AROMATIC HYDROCARBON-B	64742-95-6	10.0 @ 25.0°C	D 50.0 ppm A None O None	HEXANEDIOIC ACID, DIMETHYL ESTER 627-93-0	None	D 10.0 mg/m <sup>3</sup> A None O None
BUTANEDIOIC ACID, DIMETHYL ESTER	106-65-0	None	D 10.0 mg/m <sup>3</sup> A None O None	ISOPROPYL ALCOHOL 67-63-0	33.0	A 500.0 ppm 15 min STEL A 400.0 ppm O 400.0 ppm D 400.0 ppm 8 & 12 hour TWA
BUTYL ACETATE	123-86-4	10.0	A 200.0 ppm 15 min STEL A 150.0 ppm O 150.0 ppm	MEDIUM MINERAL SPIRITS 64742-88-7	1.0	D 100.0 ppm A None O None
CUMENE	98-82-8	3.7	A 50.0 ppm O 50.0 ppm Skin	METHYL ETHYL KETONE 78-93-3	71.0 @ 0.0	A 300.0 ppm 15 min STEL D 300.0 ppm 15 min TWA A 200.0 ppm O 200.0 ppm D 200.0 ppm 8 & 12 hour TWA
CYCLOHEXANE	110-82-7	100.0@60.0°C	A None O None			
DIACETONE ALCOHOL	123-42-2	1.1 @ 200.0°C	A None			

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METHYL ISOAMYL KETONE	110-12-3	4.5	A 50.0 ppm 8 hr TLV O 100.0 ppm 8 hr PEL	XYLENE	1330-20-7	9.0 @ 25.0°C	A 300.0 ppm O 300.0 ppm A 100.0 ppm TWA A 150.0 ppm 15 min STEL D 150.0 ppm 15 min STEL O 100.0 ppm D 100.0 ppm 8 & 12 hour TWA
METHYL ISOBUTYL KETONE	108-10-1	15.0	A 75.0 ppm 15 min STEL A 50.0 ppm O 100.0 ppm				
N-BUTYL ALCOHOL	71-36-3	4.2 @ 68.0°F	D 50.0 ppm 15 min TWA D 25.0 ppm A 50.0 ppm CEIL Skin O 50.0 ppm CEIL Skin	1,2,4-TRIMETHYL BENZENE	95-63-6	7.0 @ 44.4°C	A 25.0 ppm O 25.0 ppm
*A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @25°C unless otherwise noted.							
<b>SECTION 3 - Hazards Information</b>							
PETROLEUM NAPHTHA	64742-89-8	50.0 @ 25.0°C	O 400.0 ppm 15 min STEL D 100.0 ppm A 300.0 ppm O 300.0 ppm	<b>Potential Health Effects:</b>			
				<b>Inhalation:</b>	May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.		
PROPYLENE GLYCOL METHYL ETHER	107-98-2	11.2 @ 25.0°C	A 150.0 ppm 15 min STEL A 100.0 ppm O None	<b>Ingestion:</b>	May result in gastrointestinal distress.		
				<b>Skin or eye contact:</b>	May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.		
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	3.7	D 10.0 ppm 12 hr TWA A None O None	<b>Other Potential Health Effects in addition to those listed above:</b>			
				<b>ACETONE</b>	May cause irritation of the mucous membranes. The following medical conditions may be aggravated by exposure: respiratory system skin. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis. Overexposure may cause damage to any of the following organs/systems: blood eyes kidneys liver respiratory system skin. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.		
SILICONE RESIN	9016-00-6	7.0	A None O None	<b>AROMATIC HYDROCARBON-A</b>	Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.		
TOLUENE	108-88-3	22.0	O 300.0 ppm CEIL O 200.0 ppm D 50.0 ppm 8 & 12 hour TWA A 50.0 ppm Skin O 500.0 ppm 10 min TWA Maximum	<b>AROMATIC HYDROCARBON-B</b>	Laboratory studies with rats have shown that petroleum distillates		
VM&P NAPHTHA	64742-89-8	15.0 @ 37.8°C	O 400.0 ppm 15 min STEL D 100.0 ppm				

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can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

## **BUTYL ACETATE**

May cause abnormal liver function.  
The following medical conditions may be aggravated by exposure:  
respiratory system  
May cause eye irritation with discomfort, tearing, or blurred vision.  
Tests for embryotoxic activity in animals has been inconclusive.  
Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

## **CUMENE**

Skin contact may cause any of the following: irritation discomfort rash  
Eye contact may cause any of the following: blurred vision irritation discomfort tearing

## **DIACETONE ALCOHOL**

Recurrent overexposure may result in liver and kidney injury.

## **ETHYL ACETATE**

Prolonged and repeated high exposures of laboratory animals resulted in secondary anemia with an increase in white blood cells; fatty degeneration, cloudy swelling and an excess of blood in various organs.

## **ETHYLBENZENE**

Is an IARC, NTP or OSHA carcinogen.  
Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system kidneys liver lungs  
Recurrent overexposure may result in liver and kidney injury.  
Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects.

## **ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE**

May destroy red blood cells.  
May cause abnormal kidney function.  
May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath.  
The following medical conditions may be aggravated by exposure:  
central nervous system gastrointestinal system kidneys liver dermatitis  
Can be absorbed through the skin in harmful amounts.  
Overexposure may cause damage to any of the following organs/systems: blood kidneys liver  
Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

## **ETHYLENE GLYCOL MONOBUTYLETHER**

Can be absorbed through the skin in harmful amounts.  
May cause injury to the kidneys, liver, blood and/or bone marrow.  
Repeated overexposure may result in damage to the blood. Eye contact may cause corneal injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

## **ISOPROPYL ALCOHOL**

The following medical conditions may be aggravated by exposure:  
dermatitis respiratory disease

Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact may cause skin irritation with discomfort or rash. Can be absorbed through the skin in harmful amounts. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver  
Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.  
Aspiration may occur during swallowing or vomiting, resulting in lung damage. May cause central nervous system depression with headache, stupor, uncoordinated or strange behavior, or unconsciousness. Irritating to the mouth, throat and stomach. May cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, coughing and possibly accompanied by chest pain. Prolonged or repeated skin contact may cause drying, cracking, or irritation. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness. Swallowing significant amounts of substance could cause serious injury, even death.

## **MEDIUM MINERAL SPIRITS**

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

## **METHYL ETHYL KETONE**

Material is irritating to mucous membranes and upper respiratory tract. Persons with certain types of neurological disease such as multiple sclerosis should consult a physician prior to exposure. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system eyes respiratory system skin  
Contact may cause skin irritation with discomfort or rash. Can irritate or burn eyes. Prolonged or repeated overexposure may cause any of the following: conjunctivitis dermatitis  
High concentrations have caused embryotoxic effects in laboratory animals. Methyl ethyl ketone has been demonstrated to potentiate (i.e., shorten the time of onset) the peripheral neuropathy caused by either n-hexane or methyl n-butyl ketone. MEK by itself has not been demonstrated to cause peripheral neuropathy. Mice that were force fed (gavage) showed teratogenic effects embryofetotoxicity and maternal toxicity. The no observed effect level was estimated to be 25g/50 kg (110 lb.) woman. Laboratory animals exposed to high airborne levels showed tissue changes in the nasal passages. Aspiration may occur during swallowing or vomiting, resulting in lung damage. May cause central nervous system depression with headache, stupor, uncoordinated or strange behavior, or unconsciousness.

## **METHYL ISOAMYL KETONE**

May cause eye irritation with discomfort, tearing, or blurred vision. Extremely high oral doses in laboratory animals have shown weight changes in various organs such as the liver, kidney and adrenal gland. In addition liver injury was observed.  
Inhalation of high vapor concentrations may cause any of the following: drowsiness irritation

## **METHYL ISOBUTYL KETONE**

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system lungs  
Recurrent overexposure may result in liver and kidney injury.

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## N-BUTYL ALCOHOL

May cause abnormal blood forming function with anemia.  
Liquid splashes in the eye may result in chemical burns.

## PETROLEUM NAPHTHA

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

## PROPYLENE GLYCOL METHYL ETHER

Contact may cause skin irritation with discomfort or rash.  
May cause eye irritation with discomfort, tearing, or blurred vision.  
Tests in laboratory animals have shown effects on any of the following organs/systems: kidneys liver  
Aspiration may occur during swallowing or vomiting, resulting in lung damage.

## PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE

May cause eye irritation with discomfort, tearing, or blurred vision.  
May cause moderate eye burning.  
Recurrent overexposure may result in liver and kidney injury.  
May cause irritation of the upper respiratory passages.

## TOLUENE

Chromosomal changes in the circulating blood of exposed workers have been reported. The significance of these reports is unclear because of exposure to other substances. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system kidneys liver respiratory system skin  
May cause eye irritation with discomfort, tearing, or blurred vision.  
Can be absorbed through the skin in harmful amounts.  
Recurrent overexposure may result in liver and kidney injury.  
High airborne levels have produced irregular heartbeats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed.  
WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

## VM&P NAPHTHA

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

## XYLENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow cardiovascular system central nervous system kidneys liver lungs  
Can be absorbed through the skin in harmful amounts.  
Can irritate or burn eyes. Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heartbeats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects

to humans is not known. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Material may be harmful or fatal if swallowed. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

## SECTION 4 - First Aid Measures

### First Aid Procedures:

#### Inhalation:

If affected by inhalation of vapor or spray mist, move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing difficulty persists, or occurs later, consult a physician.

#### Ingestion:

In the unlikely event of ingestion, DO NOT INDUCE VOMITING. Call a physician immediately and have names of ingredients available.

#### Skin or eye:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash thoroughly with soap and water. If irritation occurs, contact a physician.

## SECTION 5 - Firefighting Measures

**Flash Point (Closed Cup)** See Section 11 for exact values.

**Flammable limits** LFL 0.0 % UFL 16.0 %

### Extinguishing media:

Universal aqueous film-forming foam, carbon dioxide, dry chemical.

### Fire fighting procedures:

Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to prevent pressure build-up.

### Fire & explosion hazards:

For flammable liquids, vapor/air will ignite when an ignition source is present. In other cases, when heated above the flash point, emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

## SECTION 6 - Accidental Release Measures

### Steps to be taken in case material is released or spilled:

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor.

Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C), eye protection, gloves and protective clothing. Confine, remove with inert absorbent, and dispose of properly.

## SECTION 7 - Handling and Storage

### Precautions to be taken in handling and storing:

Observe label precautions. If combustible (flashpoint between 100 - 200°F), keep away from heat, sparks and flame. If flammable (flashpoint less than 100°F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than 20°F) or flammable, VAPORS MAY IGNITE EXPLOSIVELY OR CAUSE FLASH FIRE, respectively. Vapors may spread long distances. Prevent buildup of vapors. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120°F. If product is waterbased, do not freeze.

### Other precautions:

If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved respirator or appropriate

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ventilation, and gloves.

## SECTION 8 - Exposure Controls or Personal Protection

### Engineering controls and work practices:

#### Ventilation:

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits.

#### Respiratory:

Do not breathe vapors or mists. If this product contains isocyanates or is used with an isocyanate activator/hardener, wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C) during spray application (or brush and roll application in poorly ventilated areas) and until all vapors and spray mist are exhausted. For mixing and brush and roll application in well ventilated areas or, if the product does not contain or is not mixed with an isocyanate activator/hardener, a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH TC-23C) may be used until all vapors are exhausted. In addition, for spray application when product does not contain or is not mixed with an isocyanate activator/hardener, a particulate filter (NIOSH TC-84A) is needed with the organic vapor cartridges until all vapors and spray mist are exhausted. Follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed to vapor or spray mist if product contains or is mixed with isocyanate activators/hardeners.

#### Protective clothing:

Neoprene gloves and coveralls are recommended.

#### Eye protection:

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

## SECTION 9 - Physical and Chemical Properties

Evaporation Rate	Slower than Ether
Solubility in water	NIL
Vapor Density	Heavier than air
Approx. boiling range (°C)	No Data Available
Approx. freezing range (°C)	-94 - -93(C)
Gallon weight (lbs./gal)	6.33 - 7.85
Specific gravity	0.76 - 0.94
Percent volatile by volume	84.68 - 100.00
Percent volatile by weight	81.25 - 100.00
Percent solids by volume	0.00 - 15.32
Percent solids by weight	0.00 - 18.75

## SECTION 10 - Stability and Reactivity

#### Stability:

Stable

#### Incompatibility (materials to avoid):

None reasonably foreseeable

#### Hazardous decomposition products:

CO, CO<sub>2</sub>, smoke, and oxides of any heavy metals that are reported in Section 2.

#### Hazardous polymerization:

Will not occur.

#### Sensitivity to static discharge:

For flammable materials (flashpoint less than 100°F) and combustibles (flashpoint between 100-200°F) if heated above the flashpoint, solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

#### Sensitivity to mechanical impact:

Not Applicable

## SECTION 11 - Additional Information

### PRODUCT CODE

### INGREDIENTS (Product Specific)

**RT001P** Butanedioic Acid, Dimethyl Ester (5.9%), Dibasic Ester (18.3%), Hexanedioic Acid, Dimethyl Ester (5.3%), Methyl Ethyl Ketone (68.4%\*<sup>@</sup>), Xylene (1.8%\*<sup>@</sup>)

**GAL WT: 7.25 WT PCT SOLIDS: 0.39 VOL PCT SOLIDS: 0.33**  
**SOLVENT DENSITY: 7.25 VOC LE: 7.2 VOC AP: 7.2**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**RT002P** Ethylbenzene (16.9%\*<sup>@</sup>), Silicone Resin (1.5%), Xylene (75-89%\*<sup>@</sup>)

**GAL WT: 7.24 WT PCT SOLIDS: 1.50 VOL PCT SOLIDS: 1.19**  
**SOLVENT DENSITY: 7.22 VOC LE: 7.1 VOC AP: 7.1**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**VGF17761** Ethylbenzene (2.5-6.3%\*<sup>@</sup>), Silicone Resin (18.7%), Xylene (75-79%\*<sup>@</sup>)

**GAL WT: 7.49 WT PCT SOLIDS: 18.75 VOL PCT SOLIDS: 15.32**  
**SOLVENT DENSITY: 7.19 VOC LE: 6.1 VOC AP: 6.1**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IA**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**3924S** Acetone (30.6%), Cyclohexane (0-1%\*), Isopropyl Alcohol (13.2%), Petroleum Naphtha (34.0%), Toluene (19-21%\*<sup>@</sup>)

**GAL WT: 6.44 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.44 VOC LE: 6.4 VOC AP: 4.5**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**3979S** Aromatic Hydrocarbon-A (6.2%), Ethylene Glycol Monobutyl Ether Acetate (30.0%\*<sup>@</sup>), Medium Mineral Spirits (8.0%), Propylene Glycol Monomethyl Ether Acetate (54.7%)

**GAL WT: 7.78 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.78 VOC LE: 7.8 VOC AP: 7.8**  
**FLASH POINT: 100°F - 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**T-0475** Acetone (29.5%), Butyl Acetate (18.5%), Ethylene Glycol Monobutylether (2.5%\*<sup>@</sup>), Isopropyl Alcohol (8.3%), Petroleum Naphtha (19.0%), Propylene Glycol Monomethyl Ether Acetate (1.4%), Toluene (19-20%\*<sup>@</sup>)

**GAL WT: 6.72 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.72 VOC LE: 6.8 VOC AP: 4.7**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

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**T- 6013** Ethylbenzene (15.1%\*), Isopropyl Alcohol (2.6%), Methyl Ethyl Ketone (11.3%\*), Propylene Glycol Monomethyl Ether Acetate (2.5%), Xylene (63-75%\*)  
**GAL WT: 7.15 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.15 VOC LE: 7.2 VOC AP: 7.2**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**T- 8054** Aromatic Hydrocarbon-B (57.1%), Cumene (0-5%\*), N-Butyl Alcohol (9.4%\*), Xylene (0-3%\*), 1,2,4-Trimethyl Benzene (9-41%\*)  
**GAL WT: 7.18 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.18 VOC LE: 7.2 VOC AP: 7.2**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**T- 8245** Aromatic Hydrocarbon-B (31.5%), Cumene (0-3%\*), N-Butyl Alcohol (49.9%\*), Xylene (0-2%\*), 1,2,4-Trimethyl Benzene (5-23%\*)  
**GAL WT: 6.99 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.99 VOC LE: 7.0 VOC AP: 7.0**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**T- 8805** Ethylbenzene (17.7%\*), Petroleum Naphtha (1.3%), Xylene (74-89%\*)  
**GAL WT: 7.20 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.20 VOC LE: 7.2 VOC AP: 7.2**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**T- 8819** Ethylbenzene (7.2%\*), N-Butyl Alcohol (59.7%\*), Xylene (30-36%\*)  
**GAL WT: 6.94 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.94 VOC LE: 6.9 VOC AP: 6.9**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**TY 3810** Ethylbenzene (0.6-1.7%\*), Methyl Ethyl Ketone (12.1%\*), Petroleum Naphtha (16.9%), Toluene (12-16%\*), VM&P Naphtha (52.0%), Xylene (1-5%\*)  
**GAL WT: 6.33 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.33 VOC LE: 6.3 VOC AP: 6.3**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**TY 3819** Medium Mineral Spirits (99.4%), 1,2,4-Trimethyl Benzene (0-1%\*)  
**GAL WT: 6.44 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.44 VOC LE: 6.4 VOC AP: 6.4**  
**FLASH POINT: 100°F - 141°F H: 2 F: 2 R: 0 OSHA STORAGE: II**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**TY 3826** Isopropyl Alcohol (100.0%)  
**GAL WT: 6.55 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.55 VOC LE: 6.6 VOC AP: 6.6**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**TY 3871** Acetone (10.5%), Diacetone Alcohol (7.6%), Methyl Isobutyl Ketone (7.2%\*), Propylene Glycol Methyl Ether (35.5%), VM&P Naphtha (39.1%)  
**GAL WT: 6.89 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.89 VOC LE: 6.9 VOC AP: 6.2**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**TY8593** Acetone (35.1%), Butyl Acetate (20.0%), N-Butyl Alcohol (5.0%\*), Petroleum Naphtha (13.5%), Propylene Glycol Monomethyl Ether Acetate (24.6%), Toluene (1-2%\*)  
**GAL WT: 6.93 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.93 VOC LE: 7.2 VOC AP: 4.5**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 0 OSHA STORAGE: IA**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**Y32035** Ethyl Acetate (1.5%), Methyl Ethyl Ketone (98.5%\*)  
**GAL WT: 6.67 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 6.67 VOC LE: 6.7 VOC AP: 6.7**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**Y32401** Ethylbenzene (0.3%\*), Ethylene Glycol Monobutyl Ether Acetate (98.5%\*), Xylene (1-1%\*)  
**GAL WT: 7.85 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.85 VOC LE: 7.9 VOC AP: 7.9**  
**FLASH POINT: 141°F - 200°F H: 2 F: 2 R: 0 OSHA STORAGE: IIIA**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: NO**

**36407** Acetone (7.0%), Ethylbenzene (0.8%\*), Isopropyl Alcohol (7.6%), Methyl Isoamyl Ketone (1.6%), Methyl Isobutyl Ketone (7.9%\*), N-Butyl Alcohol (6.2%\*), Toluene (65.5%\*), Xylene (3-4%\*)  
**GAL WT: 7.06 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.06 VOC LE: 7.1 VOC AP: 6.6**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**37692** Acetone (28.3%), Butyl Acetate (8.0%), Ethylbenzene (5.4%\*), Ethylene Glycol Monobutyl Ether Acetate (13.0%\*), N-Butyl Alcohol (8.6%\*), Toluene (12.1%\*), Xylene (22-27%\*)  
**GAL WT: 7.08 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.08 VOC LE: 7.3 VOC AP: 5.1**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**68083** Ethylbenzene (9.0%\*), Ethylene Glycol Monobutyl Ether Acetate (50.0%\*), Xylene (38-45%\*)  
**GAL WT: 7.53 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.53 VOC LE: 7.5 VOC AP: 7.5**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

**68084** Ethyl Acetate (14.6%), Ethylbenzene (7.7%\*), Ethylene Glycol Monobutyl Ether Acetate (42.6%\*), Xylene (32-38%\*)  
**GAL WT: 7.52 WT PCT SOLIDS: 0.30 VOL PCT SOLIDS: 0.26**  
**SOLVENT DENSITY: 7.52 VOC LE: 7.5 VOC AP: 7.5**  
**FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC**  
**TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES**

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## Footnotes:

**TSCA: in compliance** = In compliance with TSCA Inventory requirements for commercial purposes.

**ACGIH** = American Conference of Government Industrial Hygienists.

**IARC** = International agency for Research on Cancer.

**NTP** = National Toxicology Program.

**OSHA** = Occupational Safety and Health Administration.

**PNOR** = Particles Not Otherwise Regulated.

**PNOC** = Particles Not Otherwise Classified.

**STEL** = Short Term Exposure Limit.

**TWA** = Time Weighted Average.

\* = Section 313 Supplier Notification: These chemicals are subject to the reporting requirements of Section 313 of the Emergency planning and Right-to-Know act of 1986 and of 40 CFR 372.

@ = Clean Air Act Hazardous Air Pollutant.

# = EPCRA Section 302 - Extremely Hazardous Substance.

## NOTICE:

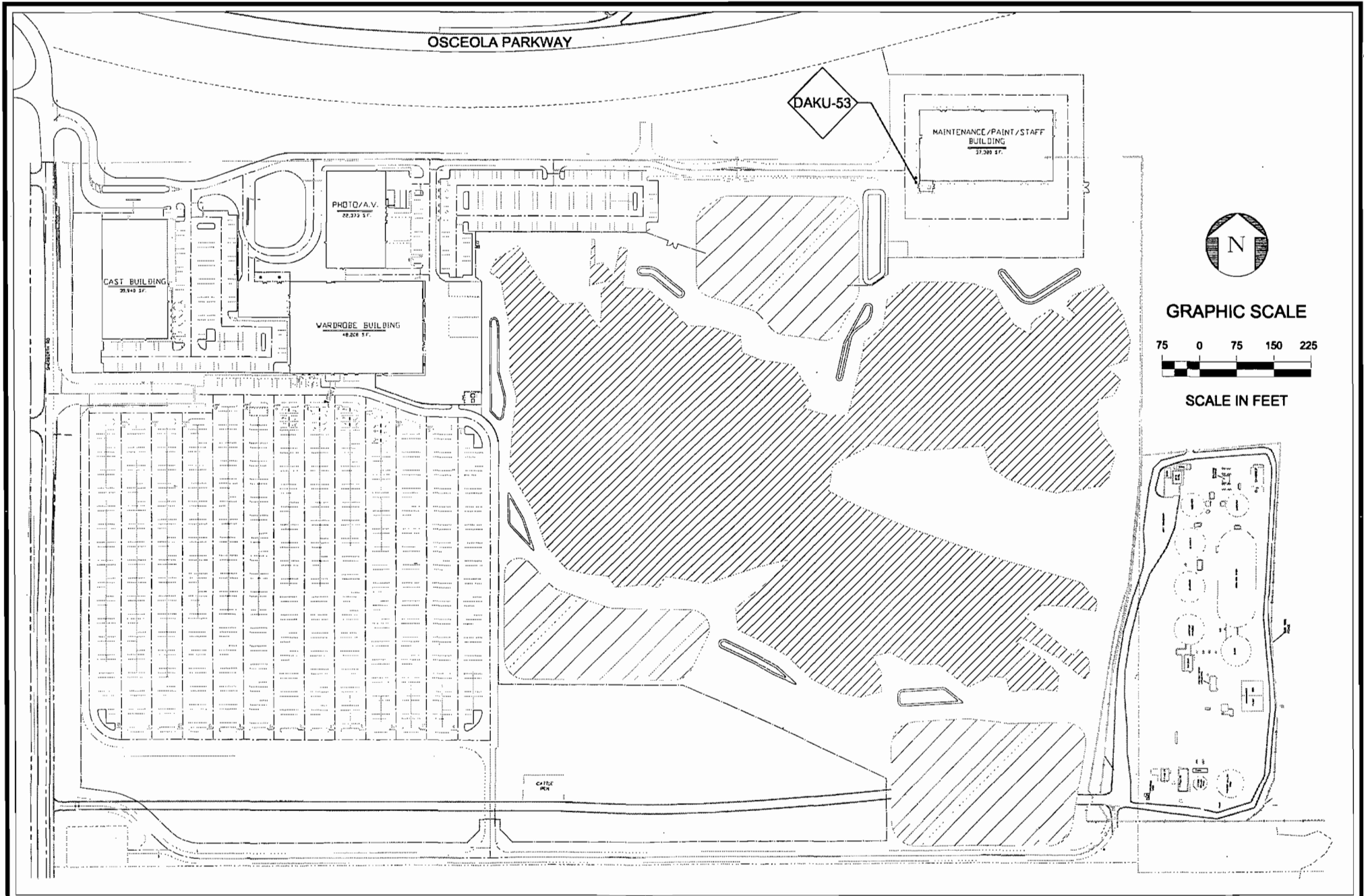
The information on this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

**Product Manager - Refinish Sales**

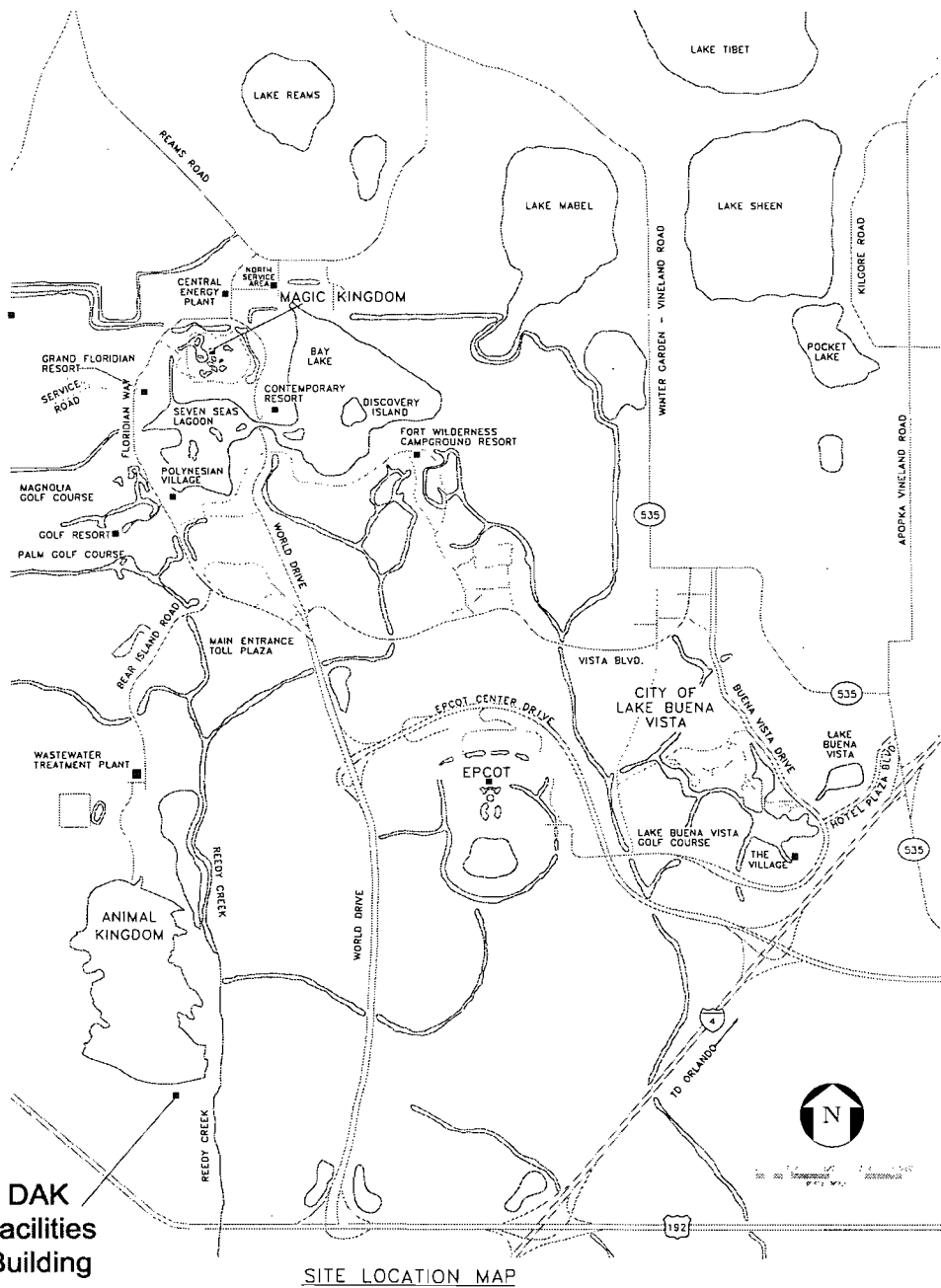
**Prepared by: E. L. Taylor**

**ATTACHMENT B**  
**FACILITY PLOT PLAN**  
**AREA MAP**



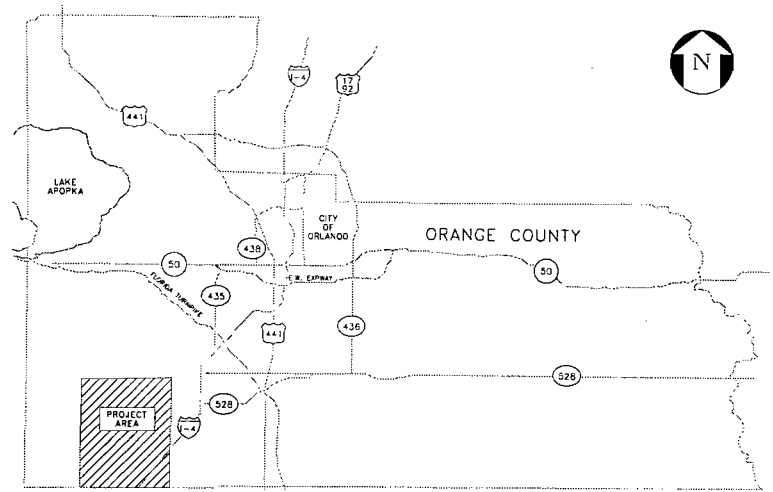


**ATTACHMENT B**  
**FACILITY PLOT PLAN**  
**DISNEY'S ANIMAL KINGDOM - BACK OF HOUSE FACILITIES BUILDING PAINT SPRAY BOOTH**

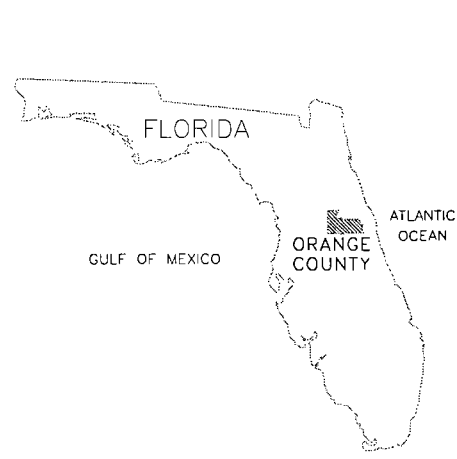


**DAK  
Facilities  
Building**

SITE LOCATION MAP



VICINITY MAP



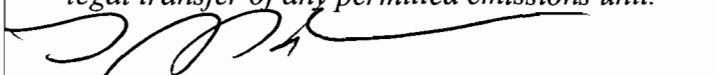
LOCATION MAP

**ATTACHMENT B  
AREA MAP SHOWING FACILITY LOCATION  
DISNEY'S ANIMAL KINGDOM - BACK OF HOUSE FACILITIES BUILDING PAINT SPRAY BOOTH**

**ATTACHMENT C**

**RESPONSIBLE OFFICIAL'S STATEMENT  
PROFESSIONAL ENGINEER'S CERTIFICATION**

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: Lee Schmutde, Vice President
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Walt Disney World Co. Street Address: PO Box 10000 City: Lake Buena Vista State: Florida Zip Code: 32830-1000
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (407 ) 828-1723 Fax: (407 ) 828-1180
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [✓], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  _____ Signature Date <u>2-7-02</u>

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: Richard A. Bumar, Jr. Registration Number: 55375
2. Professional Engineer Mailing Address: Organization/Firm: Walt Disney World Co. Street Address: PO Box 10000 City: Lake Buena Vista State: Florida Zip Code: 32830-1000
3. Professional Engineer Telephone Numbers: Telephone: (407) 828-3847 Fax: (407) 828-3876

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [  ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [  ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [  ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

  
\_\_\_\_\_  
Signature

2/6/02  
\_\_\_\_\_  
Date

Attach any exception to certification statement.

NO. 55378

STATE OF

DEP Form No. 62-210.900(1) - Instructions

Effective: 2/1/99

