Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - NON-TITLE V SOURCE

See Instructions for Form No. 62-210.900(3)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: ROBBINS MANUFACTURING COMPANY	
2. Site Name: SAWMILL	
3. Facility Identification Number: 1190011 [ ] Unknown	
4. Facility Location: Street Address or Other Locator: SR 50 AND SR 471 City: TARRYTOWN County: SUMTER Zip Code: 33597	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: CORY HOUCHIN
2. Application Contact Mailing Address: Organization/Firm: ENVIRONMENTAL SCIENCES GROUP, INC. Street Address: P.O. BOX 7495 City: TAMPA State: FL Zip Code: 33673-7495
3. Application Contact Telephone Numbers: Telephone: (813) 930 - 9074 Fax: (813) 935 - 1167

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	4-2-2012
2. Permit Number:	1190011-008-AC

Dept. of Environmental Protection
APR 02 2012
Southwest District

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial non-Title V air operation permit for one or more existing, but previously unpermitted, emissions units.

[ ] Initial non-Title V air operation permit for one or more newly constructed or modified emissions units.

Current construction permit number:_____

[ ] Non-Title V air operation permit revision to address one or more newly constructed or modified emissions units.

Current construction permit number:_____

Operation permit number to be revised:_____

[ ] Initial non-Title V air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s):

_____

[ ] Non-Title V air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative

1. Name and Title of Owner/Authorized Representative: JEROME G. ROBBINS, II SECRETARY
2. Owner/Authorized Representative Mailing Address: Organization/Firm: ROBBINS MANUFACTURING COMPANY Street Address: P.O. BOX 17939 City: TAMPA State: FL Zip Code:33682
3. Owner/Authorized Representative Telephone Numbers: Telephone: (813) 971 - 3030 Fax: (813) 972 - 3980
4. Owner/Authorized Representative Statement: *I, the undersigned, am the owner or authorized representative* of the facility addressed in this application. 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.* Signature 3-30-12 Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: CORY A. HOUCHIN Registration Number: 58064
2. Professional Engineer Mailing Address: Organization/Firm: ENVIRONMENTAL SCIENCES GROUP, INC. Street Address: P.O. BOX 7495 City: TAMPA State: FL Zip Code: 33673
3. Professional Engineer Telephone Numbers: Telephone: (813) 930 - 9074 Fax: (813) 935 - 1167

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 an air construction permit for one or more proposed new or modified emissions units (check here [X], 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.

License No. 58064 State of Florida

[signature]

Signature ____________________ Date ____________________

4/2/2012

(seal)

* Attach any exception to certification statement.

ROBBINS-SAWMILL "AFTER-THE-FACT" AC APP – NESHAP QQQQQQ

Dept. of Environmental Protection
APR 02 2012
Southwest District

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
001	WATERBORNE WOOD PRESERVING	AC 1F	$250.00

Application Processing Fee

Check one: [X] Attached - Amount: $250.00 [ ] Not Applicable

Construction/Modification Information

Description of Proposed Project or Alterations: ROBBINS IS GOVERNED BY SUBPART QQQQQQ OF THE NESHAP AND IS REQUIRED TO SUBMIT AN "AFTER-THE-FACT" CONSTRUCTION PERMIT APPLICATION FOR THEIR WATERBORNE WOOD PRESERVING OPERATION. THE PRESERVATIVE UTILIZES CHROMATED COPPER ARSENATE TO PRESSURE-TREAT PINE LUMBER. THE FACILITY WILL BE IN FULL COMPLIANCE WITH SUBPART QQQQQQ.

ROBBINS ALSO CONSTRUCTED A SMALL KILN IN 2005 THAT USES A 0.25 MMBTU/HR POOL HEATER FIRED ON PROPANE AS ITS HEAT SOURCE THAT CAN ACCOMMODATE UP TO 10,000 BOARD FEET. THIS SOURCE IS CONSIDERED "INSIGNIFICANT", HOWEVER IT HAS NEVER BEEN NOTED IN ROBBINS'PERMIT.

2. Projected or Actual Date of Commencement of Construction: NA

3. Projected Date of Completion of Construction: 06/30/2012

Application Comment

THE APPLICATION IS FOR THE "AFTER-THE-FACT" CONSTRUCTION OF A CHROMATED COPPER ARSENATE (CCA) PRESSURE TREATMENT OPERATION LOCATED IN TARRYTOWN AT THE CORNER OF SR 50 & SR 471. CCA MAKES UP THE MAJORITY OF THE PRESERVATIVE UTILIZED AT THE SUBJECT FACILITY, HOWEVER BORATES, AMMONIACAL COPPER QUATERNARY COMPOUNDS, ETC. MAY BE USED IN THE FUTURE. EMISSIONS OF CHROMIUM, COPPER AND ARSENIC ARE ESTIMATED TO BE LESS THAN ONE POUND ANNUALLY.

THE APPLICATION ALSO SERVES TO ADD A SMALL HEATER AND KILN INSTALLED IN 2005 TO THE CURRENT PERMIT. THE HEATER USES APPROXIMATELY 150 GAL PROPANE MONTHLY, THEREFORE EMISSIONS ARE CONSIDERED TO BE NEGLIGIBLE.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 396.70 North (km): 3158.89			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 28° 33' 10" Longitude (DD/MM/SS): 82° 03' 27"			
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 24	6. Facility SIC(s): 2491
7. Facility Comment (limit to 500 characters): FACILITY PRESSURE TREATS TELEPHONE POLES, FENCE POLES, FENCE SLATS, BOARDS, ETC.			

Facility Contact

1. Name and Title of Facility Contact: WILLIAM WARD, VICE PRES
2. Facility Contact Mailing Address: Organization/Firm: ROBBINS MANUFACTURING COMPANY Street Address: 13904 SR 471 City: TARRYTOWN State: FL Zip Code: 33597
3. Facility Contact Telephone Numbers: Telephone: (352) 277 - 5959 Fax: (352) 835 - 5640

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source? [X] Unknown
2. [ ] Synthetic Non-Title V Source?
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?
4. [ ] Synthetic Minor Source of HAPs?
5. [ ] One or More Emissions Units Subject to NSPS?
6. [X] One or More Emission Units Subject to NESHAP Recordkeeping or Reporting?
7. Facility Regulatory Classifications Comment (limit to 200 characters): FACILITY FALLS UNDER REGULATION OF SUBPART QQQQQQ

Rule Applicability Analysis

THE APPLICATION WILL BE SUBJECT TO THE FOLLOWING:

THE REQUIREMENTS OF 62-4, FLORIDA ADMINISTRATIVE CODE (FAC).

REQUIREMENTS OF CHAPTERS 62-204, 62-210, 62-212, 62-296 & 62-297, FAC

RULE 62-212.300, FAC, SOURCES NOT SUBJECT TO PREVENTION OF SIGNIFICANT DETERIORATION SINCE IT IS SUBJECT TO 62-210.300, FAC

RULE 62-296.320, FAC, GENERAL POLLUTANT EMISSIONS LIMITING STANDARDS SINCE ROBBINS MAY BE A SOURCE OF ODOR, PARTICULATE MATTER (PM) AND VOLATILE ORGANIC COMPOUNDS (VOC)

40 CFR 63 SUBPART QQQQQQ, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR WOOD PRESERVING AREA SOURCES

ROBBINS IS CURRENTLY GOVERNED BY PERMIT NO. 1190011-007-AO

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
As	B		0.01	NA	
Cr	B		0.01	NA	

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [X] Attached, Document ID: SITE MAP [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID: LAYOUT [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [X] Attached, Document ID: PROCESS [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
5. Supplemental Information for Construction Permit Application: [X] Attached, Document ID: SUPPORTING DOCS [ ] Not Applicable
6. Supplemental Requirements Comment:

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
WATERBORNE WOOD PRESERVING OPERATION

3. Emissions Unit Identification Number:
ID: 001
[ ] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: A	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 24

7. Emissions Unit Comment: (Limit to 500 Characters: EMISSIONS GENERATED DURING PRESERVATIVE INJECTION, PRESERVATIVE RETURN AND FROM VACUUM PUMP ARE DIRECTED BACK INTO 28,500 GAL WORKING TANK VENTED TO ATMOSPHERE

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method): NA
2. Control Device or Method Code(s): NA

Emissions Unit Details

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	NA	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	500 FT^3/HR	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? WORKING TANK	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: UNKNOWN		
5. Discharge Type Code: P	6. Stack Height: ~33 feet	7. Exit Diameter: ~0.33 feet
8. Exit Temperature: AMBIENT	9. Actual Volumetric Flow Rate: < 1.0 acfm	10. Water Vapor: ~ 10 - 15%
11. Maximum Dry Standard Flow Rate: < 1.0 dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17 East (km): 357.6 North (km): 3105.0		
14. Emission Point Comment (limit to 200 characters): 4" PROCESS VENT A TOP 5- 28,500 GAL CCA STORAGE TANKS, ALSO LOSSES DUE TO FILLING 11, 500 GAL CCA CONCENTRATE TANK		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): INDUSTRIAL PROCESSES PULP AND PAPER AND WOOD PRODUCTS WOOD PRESSURE TREATING MODIFIED FULL-CELL PROCESS, CHROMATED COPPER ARSENATE		
2. Source Classification Code (SCC): 30700513	3. SCC Units: 1000 CU FT WOOD TREATED	
4. Maximum Hourly Rate: 0.5	5. Maximum Annual Rate: 1200	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: H046	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code:	4. Secondary Control Device Code:	5. Total Percent Efficiency of Control: NA
6. Potential Emissions: 0.000003 tons/year		7. Synthetically Limited? [ ]
8. Emission Factor: 1.4 (10^{-9}) LB/CU FT Reference: AP-42		9. Emissions Method Code: 3
10. Calculation of Emissions (limit to 600 characters): SEE "SUPPORTING CALCULATIONS" ATTACHED		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.006 LB/YR	4. Equivalent Allowable Emissions: lb/hour 3 (10^{-6}) tons/year
5. Method of Compliance (limit to 60 characters): PER SUBPART QQQQQQ	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): ALLOWABLE EMISSIONS ARE POTENTIAL EMISSIONS	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: H015	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code:	4. Secondary Control Device Code:	5. Total Percent Efficiency of Control: NA
6. Potential Emissions: 0.000003 tons/year		7. Synthetically Limited? [ ]
8. Emission Factor: 1.4 (10^{-9}) LB/CU FT Reference: AP-42		9. Emissions Method Code: 3
10. Calculation of Emissions (limit to 600 characters): SEE "SUPPORTING CALCULATIONS" ATTACHED		
11. Pollutant Potential Emissions Comment (limit to 200 characters): ARSENIC EMISSIONS CALCULATED USING SAME FACTOR AS CHROMIUM AS ARSENIC EMISSIONS WERE NOT DETECTED IN AP-42 DOCUMENT.		

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.006 LB/YR	4. Equivalent Allowable Emissions: lb/hour 3 (10^{-6}) tons/year
5. Method of Compliance (limit to 60 characters): PER SUBPART QQQQQQ	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): ALLOWABLE EMISSIONS ARE POTENTIAL EMISSIONS	

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype: NA	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: Exceptional Conditions: Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code: NA	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID:PROCESS [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: ADD. DRAWINGS [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Environmental Sciences Group
P.O Box 7495
Tampa, Florida 33673
Telephone: (813) 930-9074
Fax: (813) 935-1167

PROJECT R Bains - QQQQQQ - Sumter
SUBJECT Supporting Calcs - Permit App.
COMPUTED BY CEM DATE 3/28/2012
PAGE

Chromium Emissions

$E_{cr} = 1.4 (10^{-9})$ lb/ft^3 lumber treated (from AP-42)

Lumber Treated (assumed) = 1,200,000 ft^3/yr

Hours Operated (assumed) = 2500 hr/yr

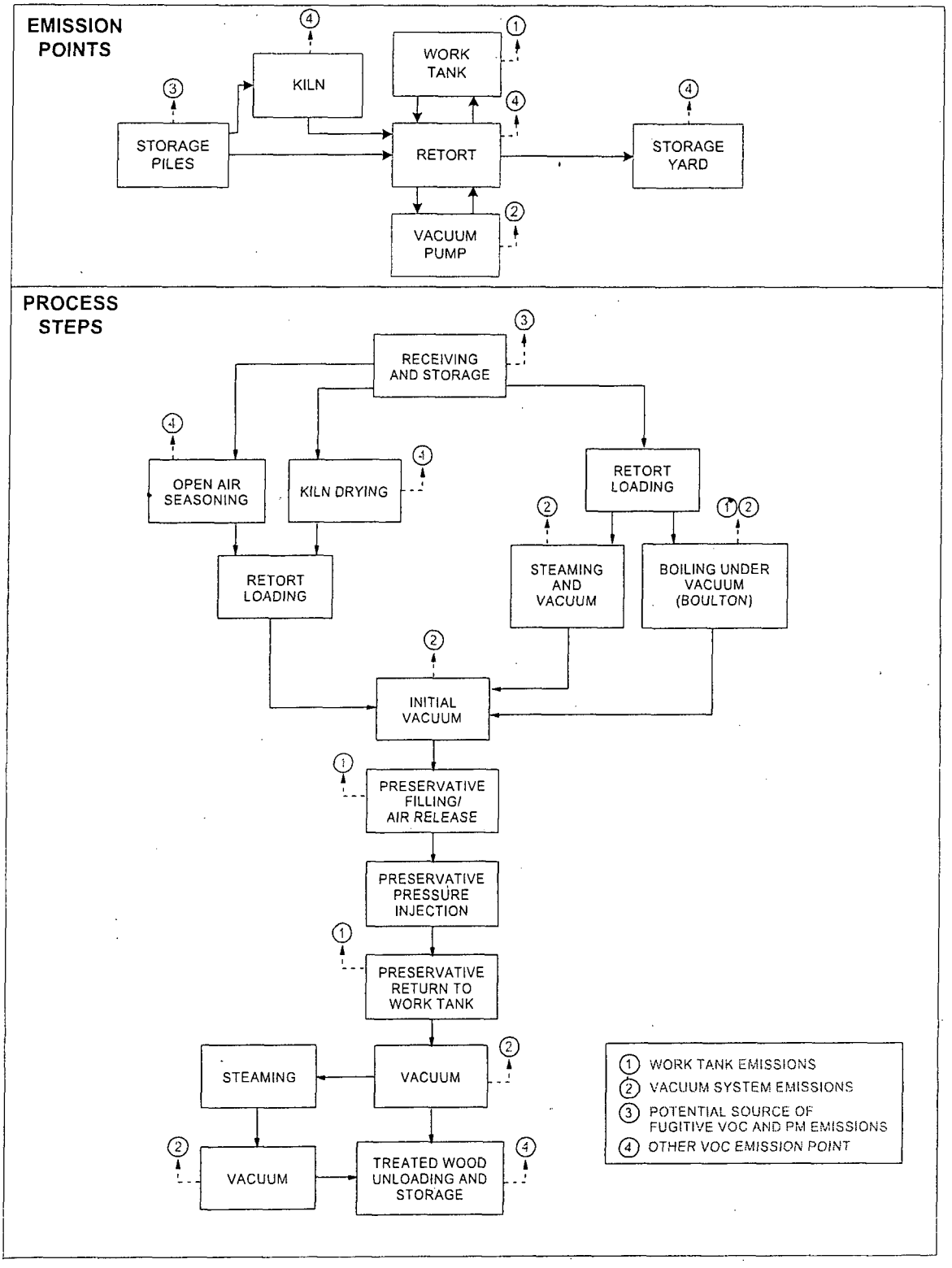
$\therefore E_{cr} = (1.4(10^{-9}) \text{ lb/ft}^3)(1{,}200{,}000 \text{ ft}^3/\text{yr}) / 2500 \frac{\text{hr}}{\text{yr}} = 6.7(10^{-6}) \frac{\text{lb}}{\text{hr}}$

$= 6.7(10^{-6})$ lb/hr (8760 hr/yr) = **0.006 lb/yr**

Arsenic Emissions

As arsenic was not detected in the AP-42 document, assume arsenic emissions to be equivalent to chromium

Process



Flow diagram of the full-cell and modified full-cell pressure treating processes.

L&M Construction Chemicals, Inc.

Industrial • Commercial • Institutional

Jason Gonder
Cornerstone Construction Services Inc
4205 Edgewater Dr
Orlando, FL 32804
jgonder@ccsorlando.com

RE: Robbins Tarrytown Coating for Slabs & Curbs

Jason:

We have reviewed the specification requirements for the chemically resistant coating for the slabs and curbs of the Robbins Tarrytown project and submit our PENTOX 50.

PENTOX 50 applied as directed will penetrate and lock onto the concrete surface leaving a surface film that is chemically resistant to the wood treatment chemicals on this project.

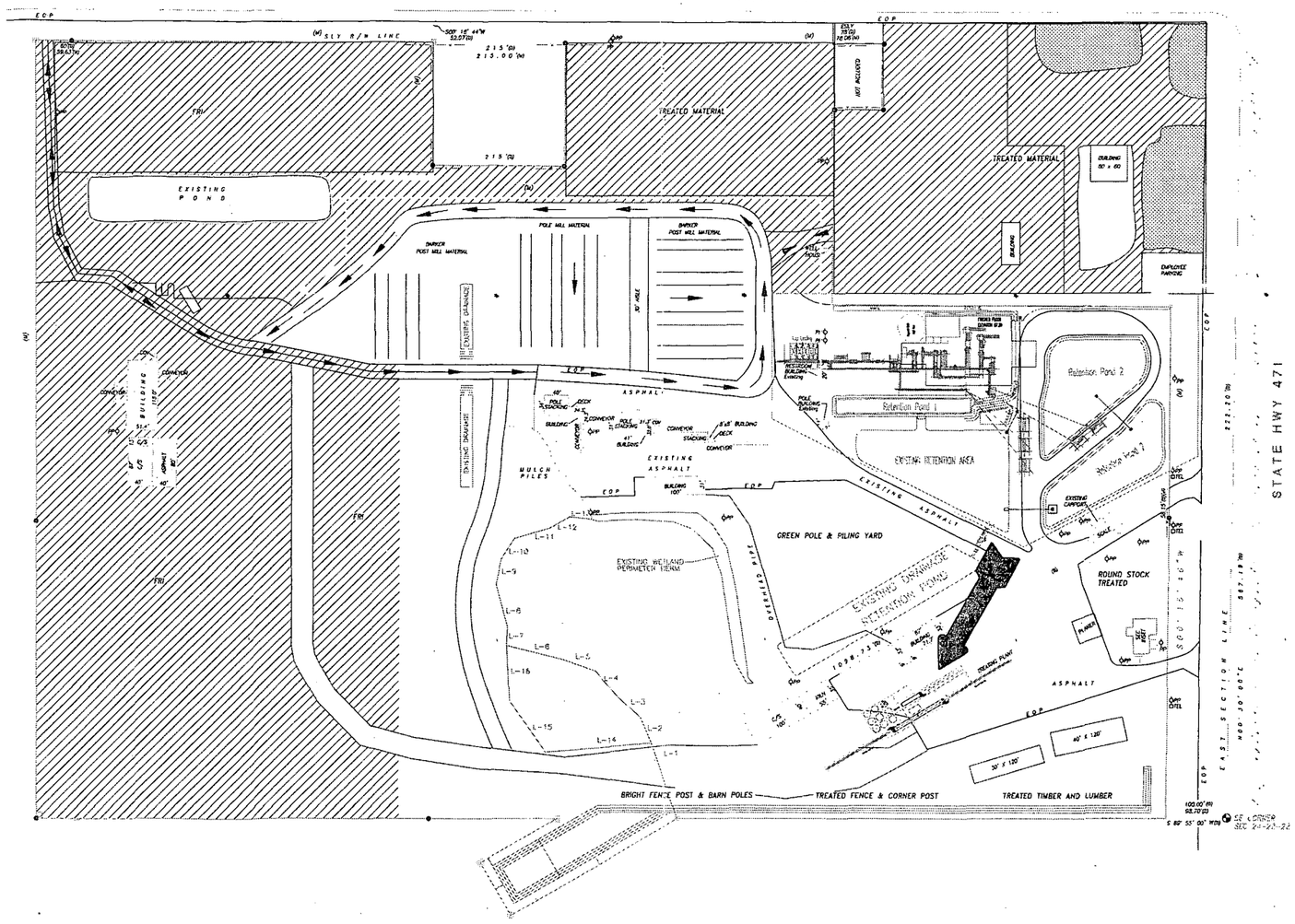
The PENTOX 50 treated surfaces are positively sealed and will have a permeability rating of less than the 1 x 10`7 cm. per second.

Respectfully submitted,

Larry Schwietz

Larry Schwietz-Techncial Director
L&M Construction Chemicals, Inc.
14851 Calhoun Road
Omaha, NE 68152
402-453-6600 (Office)
402-453-0244 (Fax)
larryschwietz@aol.com

STATE HWY 50



STATE HWY 471

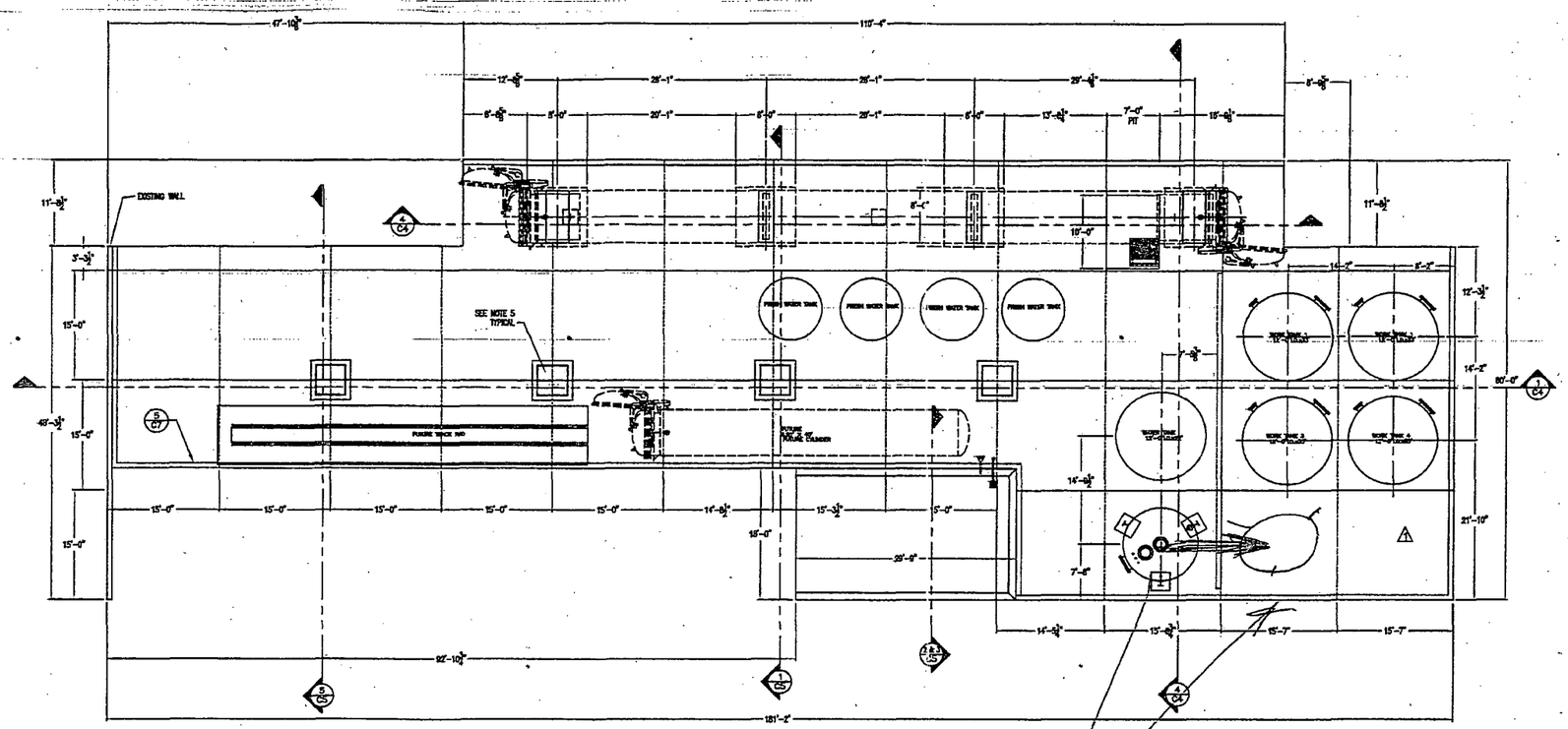
NO.	REVISION	DATE	BY
1			
2			
3			
4			
5			
6			

WOLMANIZED
PRESSURE TREATED WOOD

SITE PLAN
MATERIAL FLOW LAYOUT

ROBBINS MANUFACTURING
TARRYTOWN FLORIDA

DRAWN BY: TAH
CHECKED BY: FHA
SCALE: 1" = 100'-0"
DWG. NO. 7736 CIVIL



NOTES:

1. PROVIDE 8" THICK CONCRETE SLAB IN TANK FARM W/ #5 REBAR PLACED IN TOP 1/3 OF SLAB 12" O.C./EW, UNLESS OTHERWISE SPECIFIED.
2. CHEMICALLY RESISTANT COATING REQUIRED.
3. PROVIDE WATERSTOP AT ALL JOINTS, EVEN IF NOT SPECIFICALLY NOTED.
4. PROVIDE EXPANSION JOINTS IN ALL WALLS, EVEN IF NOT SPECIFICALLY NOTED.
5. FILL VOID AROUND BUILDING COLUMN WITH SAND OR UNPACKED GRAVEL.
6. FINISH ALL SLABS WITH SLOPE TOWARD CYLINDER PIT.
7. FINISH ALL TRUCK UNLOADING SLAB WITH SLOPE TOWARD 10 X 10. SUMP BOX. SUMP TO PUMP LIQUID INTO THE CONTAINMENT AREA.

We are moving to concentrate tank outside. To the west of the wall.
Paul.

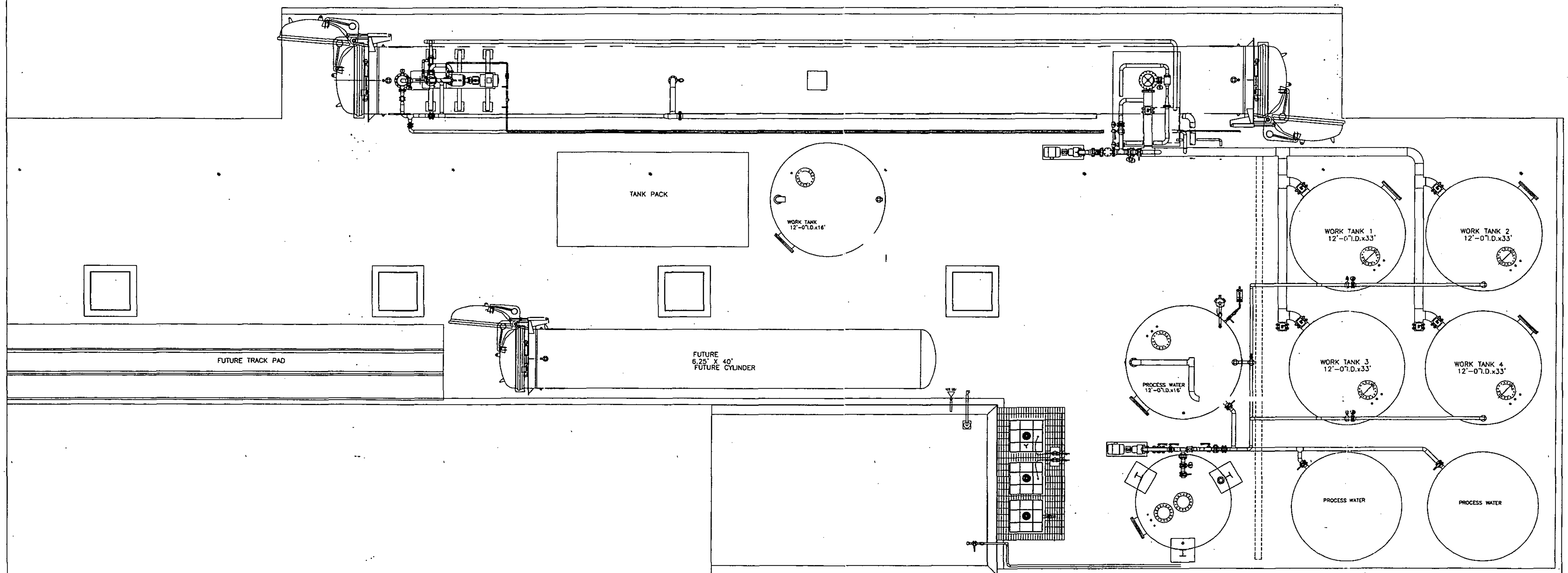
NO.	REVISION	DATE	BY
1	ENLARGED TANK FARM	11/12/10	TWI
2			
3			
4			
5			
6			

ARCH

TANK FARM PLAN LAYOUT

ROBBINS MANUFACTURING
TARRYTOWN, FL

DRAWN BY:	TAH
CHECKED BY:	FHA
SCALE:	NONE
DWG. NO.	7736-C3



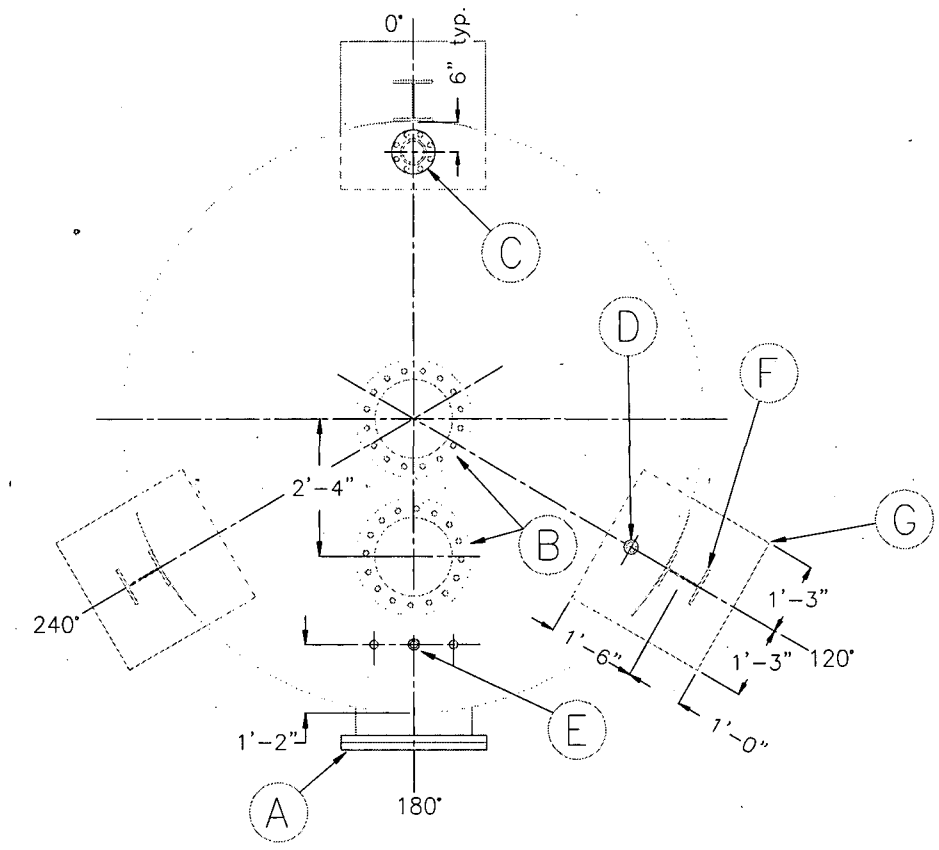
NO.	REVISION	DATE	BY
1	ENLARGED TANK FARM	11/12/10	TAH
2	Proposed		
3			
4			
5			
6			

ARCH

OVERALL test

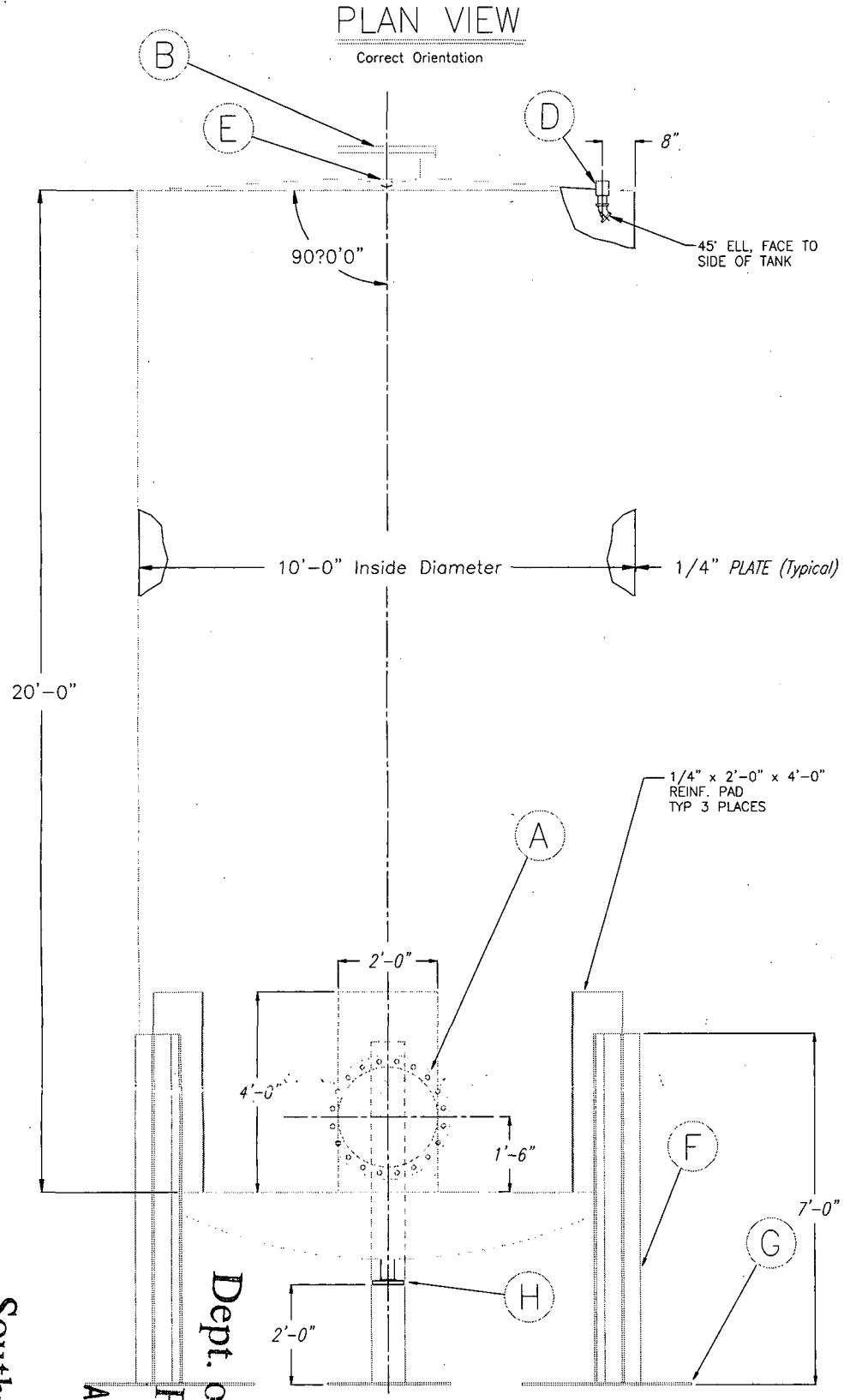
ROBBINS MANUFACTURING
TARRYTOWN, FL

DRAWN BY: TAH
CHECKED BY: NLV
SCALE: 3/16" = 1'-0"
DWG. NO. 7736-M1



PLAN VIEW

Correct Orientation



ELEVATION

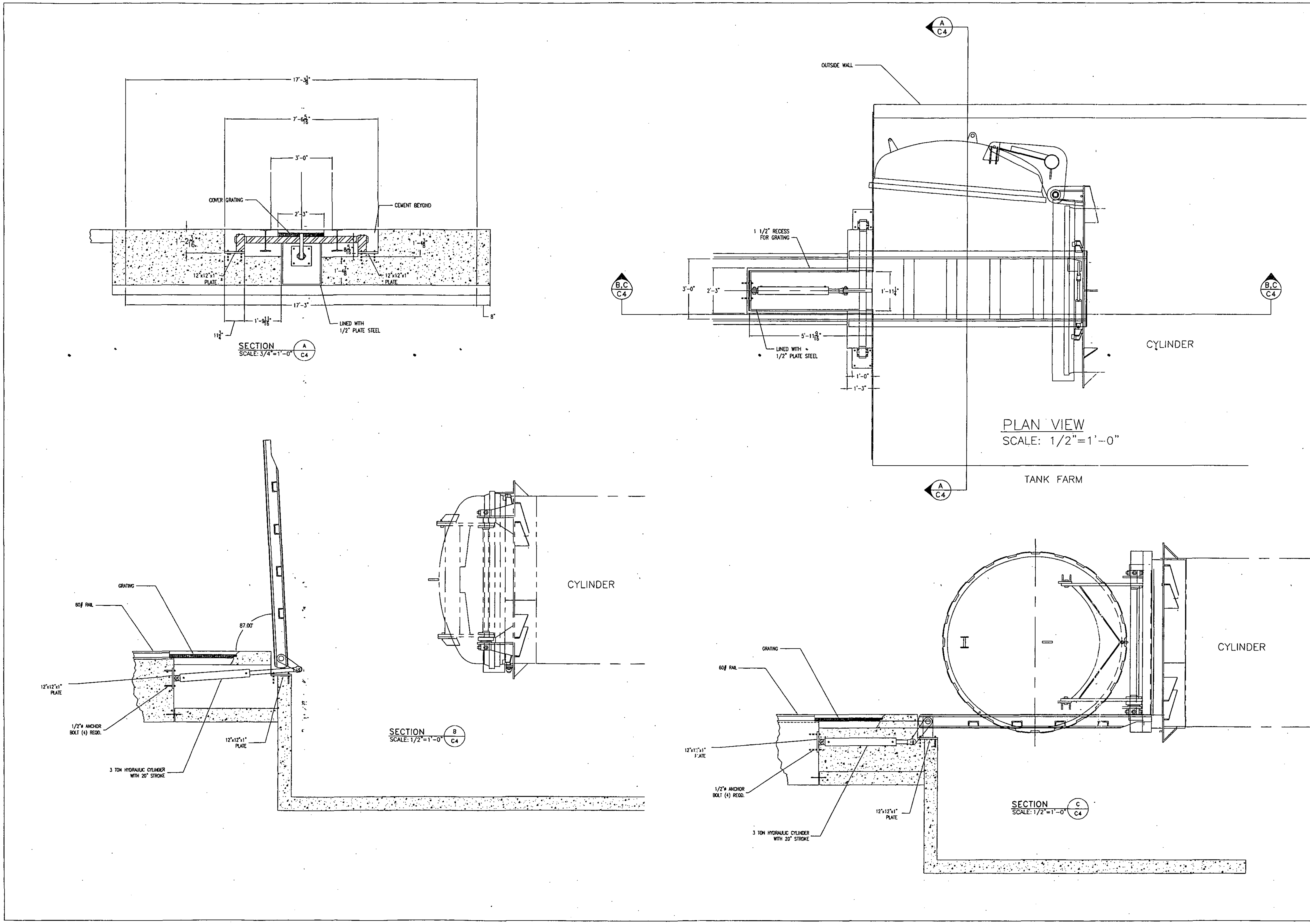
GENERAL NOTES:

1. TANK TO BE ALL WELDED CONSTRUCTION TO API STANDARDS SUITABLE FOR FULL HEAD OF LIQUID, SPGR 2.0 WELD SEAMS & FITTINGS INSIDE & OUT. FULLY WELD ALL SUPPORTS & PADS.
2. TANKS TO BE THOROUGHLY CLEANED AND GIVEN ONE COAT OF RUST-PROOF PRIMER ON THE OUTSIDE ONLY.
3. ALL COUPLINGS TO BE 3000# COMPLETE WITH PLUGS.
4. ALL BOLT HOLES TO STRADDLE NATURAL CENTERLINES, OR STRADDLE 0° TO 180° LINE.
5. PLAN VIEW SHOWS CORRECT ORIENTATION.
6. GASKETS TO BE GRAPHITE IMPREGNATED ASBESTOS.
7. TANK MANUFACTURER TO DESIGN SUPPORT LEGS TO HOLD TOTAL TANK WEIGHT OF 180,000 LBS.

LEGEND		
MARK	QTY	DESCRIPTION
A	1	24" STD. API MANHOLE W/COVER & GASKET
B	2	16" STD. API MANHOLE W/COVER & GASKET
C	1	4" 150# FLANGED NOZZLE
D	1	2" 3000# FULL CPLG.
E	1	1 1/2" 3000# FULL CPLG.
F	3	W8 X 40#/FT BEAM X 7'-0" LONG
G	3	30" X 30" X 1" SQUARE PLATE
H	1	3" 150# FLANGED NOZZLE

CORPORATION

Concentrate Tank



REVISION

NO.	REVISION	BY	DATE
1			
2			
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4			
5			
6			

ARCH

HYDRAULIC & BRIDGE RAIL
DETAILS & SECTIONS

DRAWN BY: TAH
CHECKED BY: JM
SCALE: AS NOTED
DWG. NO. XXXX

MATERIAL SAFETY DATA SHEET
CHROMATED COPPER ARSENATE PROCESS WATER SOLUTION
October 14, 2008

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: CHROMATED COPPER ARSENATE PROCESS WATER SOLUTION
General Use: Make Up Water for Wood Preservation

MANUFACTURER:
Arch Wood Protection, Inc.
3941 Bonsal Road
Conley, Georgia 30288
MSDS Information 1-800-511-6737

EMERGENCY TELEPHONE NUMBERS:
*CHEMTREC Assistance: 1-800-424-9300
*CANUTEC: 1-613-996-6666
ACEAN 24 hour Emg. Resp. 1-800-654-6911
*Use only during transportation emergencies

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	PERCENT	CAS #	EXPOSURE LIMITS (mg/m^3)		
			OSHA-PEL	ACGIH-TLV	ACGIH-STEL
Chromic Acid	<3	7738-94-5	(as Cr) 0.1 (Ceiling)	0.05	None
Arsenic Acid	<3	7778-39-4	(as As)0.01	0.01	None
Copper Oxide	<3	1317-38-0	(as Cu) 1.0 (dusts/mists)	1.0 (dusts/mists)	None

3. HAZARDS IDENTIFICATION

Inhalation: Severe irritation to the upper airways when inhaled in concentrations exceeding recommended exposure limits. Short-term overexposure may cause muscle spasms, dizziness and collapse. Prolonged overexposure may cause hoarseness of the voice, potential liver injury and red patches on the skin. Chronic arsenic exposure may cause nervous system damage.
Eye Contact: Severe irritation to the eyes.
Skin Contact: May cause irritation to the skin.
Ingestion: Corrosive. Can cause internal hemorrhage and death if consumed as a liquid.

4. FIRST AID MEASURES

Inhalation: Remove from exposure. If severe breathing difficulty should arise immediately seek medical aid. If breathing has stopped, administer artificial respiration or oxygen.
Eye Contact: Exposed eyes should be flushed with large amounts of saline or water for at least 15 minutes, (greater than 1 liter per eye, minimum) using low pressure, taking care that the eyes remain open during this entire procedure. If wearing contact lenses, immediately flush eyes with water for a short period prior to removing contacts, then resume flushing procedures as described above. Immediately seek medical aid.
Skin Contact: Flush exposed skin with large amounts of water. Then use soap and water to clean area. Remove contaminated clothing. Seek medical aid if severe irritation develops.
Ingestion: Following ingestion, if the patient can swallow without difficulty, administer small quantities of water and/or demulcents (such as milk) to dilute the chromic acid. Do not administer anything by mouth if difficulty with swallowing exists. DO NOT induce vomiting. Seek medical aid immediately. Do not attempt to give anything to an unconscious person. Call a physician or poison center.

5. FIRE FIGHTING MEASURES

Flash Point NA
Auto-ignition NA
Lower Explosive Limit NA
Upper Explosive Limit NA

Extinguishing Agents: Not applicable

5. FIRE FIGHTING MEASURES CONT'D

Fire-Fighting Procedures: Fire from a separate fuel source may be intense enough to cause thermal decomposition releasing toxic fumes and/or gases. Wear complete fire service protective equipment, including full-face NIOSH/NFPA – approved self-contained breathing apparatus.
Fire and Explosion Hazard: This product will not burn. Closed containers may explode (due to the build up of steam pressure) when exposed to extreme heat. Water could evaporate to expose a combustible residue. Under fire conditions the product may emit irritants, toxic gas and/or fumes. May cause fire on contact with combustible materials (e.g. oil-stained rags or sawdust).

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: (Product): Stop leak if no risk involved. Contain spill by using an inert non-biodegradable absorbent material (e.g., kitty litter or synthetic absorbents). Shovel into an appropriate container and dispose of waste in accordance with federal, state and local regulations. If material can be recovered, use a vacuum system designed for liquid recovery. If a reportable quantity (RQ) is released into the environment, report to the National Response Center (1-800-424-8802), the State Emergency Planning Commission (SERC), the Local Emergency Planning Committee (LEPC) and/or your local fire department depending on availability.
Reportable Quantities: If 54 gallons (454 lbs.) of CCA Treating Solution is released into the environment, the arsenic RQ of one (1) pound will be exceeded.
Waste Disposal: Dispose of waste in accordance with Federal and State Hazardous Waste regulations. Place in tightly sealed, labeled containers. This product is an EPA listed waste as F035 in 40 CFR 261.

7. HANDLING AND STORAGE

Storage Conditions: Well ventilated area. Maintain good housekeeping. Keep properly labeled containers closed when not in use. Protect from physical damage.
Caution: Do not wear contaminated clothing. Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: None normally required. However, if airborne concentrations exceed established PEL, use NIOSH approved air-purifying respirator equipped with high efficiency particulate filters (HEPA) such as P100.
Eye Protection: Splash-proof chemical goggles and face shield should be worn wherever splash hazards exist.
Skin/Foot Protection: PVC, polyethylene or neoprene gloves are recommended. Wear long sleeves, pants and leather or rubber shoes. Coveralls or aprons if needed.
Ventilation: General ventilation is required.
Other Protective Equipment: Facilities storing or utilizing this material must be equipped with an emergency eyewash and safety shower station within easy access for quick drenching or flushing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow to Pale Brown liquid	**Solubility in Water**	Soluble	**Specific Gravity (Water =1)**	1.02
Odor	Metallic	**pH**	<2	**Boiling Point**	100C
Physical State	Liquid	**Vapor Pressure**	NA	**Freezing Point**	-30C

10. STABILITY AND REACTIVITY

Conditions contributing to instability: None.
Incompatibilities: Alkaline products, Zinc, galvanized metal, aluminum, organic combustible materials (such as oily rags or sawdust)
Hazardous Reactions/Decomposition/Combustion Products: Chromium, copper and arsenic fumes
Hazardous Polymerization: Does not occur

11. TOXICOLOGICAL INFORMATION

Oral Toxicity: LD50= >500 mg/kg (rat – CCA 8% Solution)

Cancers in humans have followed from long term consumption of Fowler's Solution, a medicinal trivalent arsenical; inhalation and skin contact with inorganic trivalent arsenical sheep-dust; the combined inhalation of arsenic trioxide (trivalent arsenical), sulfur dioxide, and other particulates from ore smelting in arsenic trioxide production; and occupational exposure to nonwater-soluble hexavalent chromium.

12. ECOLOGICAL INFORMATION

Do not discharge process water containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge process water containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
NOTE: Arsenic, Chrome and Copper occur naturally in soil.

13. DISPOSAL CONSIDERATIONS

Disposal Guidance: Dispose of waste in accordance with Federal and State Hazardous Waste regulations. Place in tightly sealed, labeled containers. This product is an EPA listed waste as F035 in 40 CFR 261.

14. TRANSPORT INFORMATION

DOT Hazardous Material Classification: Arsenical Pesticide, Liquid, Toxic, (Arsenic Acid, Chromic Acid), 6.1 UN 2994, III
North American Emergency Response Guide # 151

15. REGULATORY INFORMATION

Canada: Regulated under WHMIS.
CERCLA/SARA (40 CFR 302.4): Regulated under CERCLA/SARA . Chromic acid and arsenic acid have reportable quantities of 10 pounds and 1 pound respectively under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
SARA 311/312 (40 CFR 370): This product is an OSHA hazardous material under 29 CFR 1910.1200, therefore, it is regulated under the Superfund Amendments and Reauthorization Act (SARA) Sections 311 and 312. A facility must report chemical storage quantities that equal or exceed 10,000 pounds anytime during the reporting year to the appropriate state and local agencies.
SARA 313 (40 CFR 372): This product requires a Toxic Release Inventory reporting for individual material uses of 25,000 pounds or more. Reporting is under Copper Compounds, Chromium Compounds and Arsenic Compounds.
RCRA (40 CFR 261): This product is an EPA listed waste as F035 in 40 CFR 261.
OSHA (29 CFR 1910.1200): This product is regulated under the Hazard Communication Standard
FIFRA (40 CFR 152-186): This product is subject to regulation under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from the Toxic Substances Control Act (TSCA) Inventory listing requirements. This product is registered as a restricted-use pesticide. Users must be certified (or licensed) applicators or operate under the direct supervision of a certified applicator.

15. REGULATORY INFORMATION CONT'D

California Proposition 65: This product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. (This statement issued in accordance with California Proposition 65).
NFPA: 1-Health, 0-Flammability, 0-Reactivity

ABBREVIATIONS

OSHA	Occupational Safety and Health Administration	**TLV**	Threshold Limit Value
NFPA	National Fire Protection Association	**STEL**	Short-Term Exposure Limit
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act	**RCRA**	Resource Conservation and Recovery Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	**ACGIH**	American Conference of Governmental Industrial Hygienists
SARA	Superfund Authorization and Reauthorization Act	**NIOSH**	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limit	**TSCA**	Toxic Substances Control Act
DOT	Department of Transportation	**IARC**	International Agency for Research on Cancer
NTP	National Toxicology Program	**IBC**	International Building Code
CFR	Code of Federal Regulations	**mg/m3**	Milligrams per cubic meter
CWA	Clean Water Act	**CAA**	Clean Air Act
CAS	Chemical Abstracts Service		

NOTICE: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Arch Wood Protection, Inc. makes no guarantee or warranty, expressed or implied, as to the accuracy, reliability, or completeness of the information.

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: **Chromated Copper Arsenate (CCA)Treating Solution**

1. PRODUCT AND COMPANY IDENTIFICATION

Arch Wood Protection, Inc.
5660 New Northside Drive, NW
Suite 1100
Atlanta, GA 30328

REVISION DATE:	08/25/2009
SUPERCEDES:	03/31/2009
MSDS Number:	000000009638
SYNONYMS:	None
CHEMICAL FAMILY:	Not Applicable/Mixture
DESCRIPTION / USE:	Restricted Use - Wood Preservative
FORMULA:	None established

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification:	**Corrosive to eyes, Carcinogen, Possible skin sensitizer**

Routes of Entry:	Inhalation, ingestion, eye contact
Chemical Interactions:	No known or reported interactions.
Medical Conditions Aggravated:	Respiratory diseases including asthma and bronchitis, Pre-existing liver diseases, Pre-existing kidney disease, Pre-existing eye disease

Human Threshold Response Data

Odor Threshold	Not established for product.
Irritation Threshold	Not established for product.

Hazardous Materials Identification System / National Fire Protection Association Classifications

Hazard Ratings :	Health	Flammability	Physical / Instability	PPI / Special hazard.
HMIS	3*	0	0	
NFPA	3	0	0	

Immediate (Acute) Health Effects

Inhalation Toxicity:	May be harmful if inhaled. Exposure to high concentrations may result in alterations to the liver.
Skin Toxicity:	Not expected to be irritating. Not expected to be toxic from dermal contact.
Eye Toxicity:	Corrosive. Burns can occur following exposure. Direct contact may cause impairment of vision, corneal damage and/or blindness. Rinsing of the eye should take place immediately.
Ingestion Toxicity:	Moderately toxic if swallowed. Harmful if swallowed. Exposure to large quantities of this material may result in liver and kidney damage, based on animal studies. Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration or perforation. Aspiration may lead to lung damage.
Acute Target Organ Toxicity:	Corrosive to eyes

Prolonged (Chronic) Health Effects

Carcinogenicity:	The International Agency for Research on Cancer (IARC) has classified a component or components of this product as a Group 1 substance, Carcinogenic to Humans.
Reproductive and Developmental Toxicity:	No reproductive or developmental risk to humans is expected from exposure to this product.
Inhalation:	There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.
Skin Contact:	There are no known or reported effects from chronic exposure.
Skin Absorption:	There are no known or reported effects from chronic exposure.
Ingestion:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure. The acute corrosivity of this product, makes chronic ingestion of significant amounts unlikely.
Eye Contact:	Prolonged contact may result in permanent damage. Corneal involvement or visual impairment is expected.
Sensitization:	May cause allergic skin sensitization in some individuals.
Chronic Target Organ Toxicity:	This product has not been tested. However, chronic (repeated) exposures to this product would be expected to produce similar effects as seen from acute exposures.
Supplemental Health Hazard Information :	No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME	CAS #	% RANGE
CHROMIC ACID (CRO3)	7738-94-5	- 5
COPPER OXIDE	1317-38-0	- 5
ARSENIC ACID	7778-39-4	- 5

4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Notes to Physician:	Massive overexposure to chromic acid could lead to kidney failure and death. Death has been avoided in several such cases through the use of early renal dialysis. An effective treatment has been shown to be administration of ascorbic acid by mouth or intravenously.Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive.
Flammable Properties	
Flash Point:	Not applicable
Autoignition Temperature:	Not applicable
Fire / Explosion Hazards:	Material will not ignite or burn.
Extinguishing Media:	Not Applicable. - Choose extinguishing media suitable for surrounding materials.
Fire Fighting Instructions:	Response to this material requires the use of a full encapsulated suit and full-face (NIOSH approved) self-contained breathing apparatus (SCBA). Use water to cool containers.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Upper Flammable / Explosive Limit, % in air:	No data.
Lower Flammable / Explosive Limit, % in air:	No data.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations:	Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.
Spill Mitigation Procedures	
Air Release:	Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog. Contain all liquids for treatment or disposal.
Water Release:	This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Contain all liquids for treatment or disposal.
Land Release:	Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Contain all liquids for treatment or disposal.
Additional Spill Information :	Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

7. HANDLING AND STORAGE

Handling:	An eye wash and safety shower should be provided in the immediate work area. Avoid breathing dust, mist, vapor or gas. Avoid contact with eyes, skin, and clothing. Use only in a well-ventilated area. Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms.
Storage:	Keep container closed when not in use.
Incompatible Materials for Storage:	Bases galvanized metal organic materials with high surface area such as rags, cotton waste, sawdust, etc. zinc aluminum
Empty Container Warning:	Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection :	Wear a NIOSH approved respirator if levels above the exposure limits are possible.
Respirator Type :	A NIOSH approved air purifying respirator with acid gas cartridge and P100 filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit. A NIOSH approved full-face or half-face respirator in combination with chemical goggles.
Skin Protection :	Wear impervious gloves, boots and apron to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.
Eye Protection:	Use chemical goggles.
Protective Clothing Type:	Polyvinyl chloride, Polyethylene, Butyl rubber
General Protective Measures:	An eye wash and safety shower should be provided in the immediate work area. OSHA's Inorganic Acid and Hexavalent Chromium Standards do not apply to workers applying this pesticide in accordance with the label instructions.

Exposure Limit Data

CHEMICAL NAME	CAS #	Name of Limit	Exposure

CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAP1	0.005 mg/m3 TWA See 1910.1026. See Table Z-2 for the exposure Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in 1910.1026 is stayed or are otherwise not in effect.
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAP2	0.001 mg/m3 Calculated as CrO3 CEIL This standard applies to any operations or sectors for which the exposure limit in the Chromium (VI) standard, Sec. 1910.1026, is stayed or is otherwise not in effect., Z37.7-1971
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAPO	0.1 mg/m3 Calculated as CrO3 CEIL See Table Z-2.
CHROMIC ACID (CRO3)	7738-94-5	ZUS_ACGIH	0.05 mg/m3 Calculated as Cr TWA soluble NOC = not otherwise classified., 1994-1995 Adoption, Substances for which there is a Biological Exposure Index or Indices (see BEI® section), Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL., Substance identified by other sources as a suspected or confirmed human carcinogen., Refers to Appendix A -- Carcinogens.
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAP2	1 mg/10m3 CEIL
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAPO	
CHROMIC ACID (CRO3)	7738-94-5	NIOSH-IDLH	250 mg/m3
COPPER OXIDE	1317-38-0	NIOSH-IDLH	100 mg/m3
ARSENIC ACID	7778-39-4	ZUS_OSHAP1	0.01 mg/m3 Calculated as As TWA

ARSENIC ACID	7778-39-4	ZUS_OSHAPO	0.01 mg/m3 Calculated as As TWA Sec. 1910.1018 Inorganic arsenic.
ARSENIC ACID	7778-39-4	ZUS_ACGIH	0.01 mg/m3 Calculated as As TWA Substances for which there is a Biological Exposure Index or Indices (see BEI® section), Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL., Substance identified by other sources as a suspected or confirmed human carcinogen., Refers to Appendix A -- Carcinogens.
ARSENIC ACID	7778-39-4	NIOSH-IDLH	5 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	Free flowing
Color:	light brown
Odor:	Metallic
Molecular Weight:	None established
Specific Gravity :	1.04
pH :	< 2.0
Boiling Point:	100 DEG°C / 212 DEG°F
Freezing Point:	-30 DEG°C / -22 DEG°F
Melting Point:	Not applicable
Density:	approx.8.7
Vapor Pressure:	Not applicable
Vapor Density:	not applicable
Viscosity:	No data
Fat Solubility:	No data
Solubility in Water:	soluble
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	No data
Oxidizing:	The substance has no oxidizing properties
Volatiles, % by vol.:	Water
VOC Content	Not applicable
HAP Content	No data

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions. Product will not undergo hazardous polymerization.
Conditions to Avoid:	High temperatures
Chemical Incompatibility:	Bases, galvanized metal, zinc, aluminum, Organic materials with high surface area such as rags, cotton waste, sawdust, etc.
Hazardous Decomposition Products:	Chromium, arsenic, and copper fumes
Decomposition Temperature:	No data

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

CHROMIC ACID (CRO3)	LD50 = 80 mg/kg Rat
COPPER OXIDE	LD50 (97.6% Active Ingredient) > 5,050 mg/kg Rat
ARSENIC ACID	LD50 (75% Active Ingredient) = 134 mg/kg Rat

Dermal LD50 value:

CHROMIC ACID (CRO3)	No data
COPPER OXIDE	LD50 (97.6% Active Ingredient) > 2,020 mg/kg Rabbit
ARSENIC ACID	No data

Inhalation LC50 value:

CHROMIC ACID (CRO3)	No data
COPPER OXIDE	Inhalation LC50 4 h (97.6% Active Ingredient) > 2.08 MG/L Rat
ARSENIC ACID	Inhalation LC50 1 h (aerosol), (Whole-body), (75% Active Ingredient) = 1.16 MG/L Rat
ARSENIC ACID	Inhalation LC50 4 h (aerosol), (Whole-body), (75% Active Ingredient) = 0.29 MG/L Rat

Product Animal Toxicity

Oral LD50 value:	LD50 Believed to be approximately 1,200 mg/kg rat
Dermal LD50 value:	LD50 Believed to be approximately 3,400 mg/kg rabbit
Inhalation LC50 value:	Inhalation LC50 no data available
Skin Irritation:	Not expected to be irritating.
Eye Irritation:	This material is expected to be corrosive.
Skin Sensitization:	May cause allergic skin sensitization in some individuals.
Acute Toxicity:	Corrosive to eyes
Subchronic / Chronic Toxicity:	This product has not been tested. However, chronic (repeated) exposures to this product would be expected to produce similar effects as seen from acute exposures.
Reproductive and Developmental Toxicity:	At high doses significant maternal toxicity and fetotoxicity was observed. However, no developmental or teratogenic effects were observed.

ARSENIC ACID	This product has been tested in laboratory animals and was found to cause developmental toxicity only at maternally toxic doses.

Mutagenicity: Not known or reported to be mutagenic.

CHROMIC ACID (CRO3)	Not known or reported to be mutagenic.

Carcinogenicity: The International Agency for Research on Cancer (IARC) has classified a component or components of this product as a Group 1 substance, Carcinogenic to Humans.

CHROMIC ACID (CRO3)	*Cancers in humans have followed from long term* occupational exposure to nonwater-soluble hexavalent chromium. Insoluble forms of hexavalent chromium have been shown to be a human carcinogen by inhalation. Other routes of exposure are not classifiable as to human carcinogenicity.
ARSENIC ACID	The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 1 substance, Carcinogenic to Humans.

12. ECOLOGICAL INFORMATION

Overview: Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems., Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Ecological Toxicity Values for: **COPPER OXIDE**

Mosquito fish - (nominal, static). 96 h LC50 > 56,000 mg/l

13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary :	If this product becomes a waste, it will be a hazardous waste.
Disposal Methods :	As a hazardous liquid waste it must be disposed of in accordance with local, state and federal regulations.
Potential US EPA Waste Codes :	D002, D004, D007

14. TRANSPORT INFORMATION

Land (US DOT): Not Regulated NOT REGULATED AS A DOT HAZARDOUS MATERIAL
Water (IMDG): NOT REGULATED AS A HAZARDOUS MATERIAL,

Flash Point: Not applicable
Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,
Emergency Response Guide Number: Not applicable

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA):	This product is a diluted mixture of one or more Registered Pesticides and is regulated by FIFRA (Canada-PMRA).
EPA Pesticide Registration Number:	None established
FIFRA Listing of Pesticide Chemicals (40 CFR 180):	Not registered in the US under FIFRA.

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

Health	Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
Physical	None

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

ZUS_SAR302	TPQ (threshold planning quantity)	None established

Reportable Quantity (49 CFR 172.101, Appendix):

ZUS_CERCLA	Reportable quantity	CHROMIC ACID Value: 10lbs COPPER AND COMPOUNDS Value: Arsenic acid H3AsO4 Value: 1lbs
ZUS_SAR302	Reportable quantity	None established

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

ZUS_SAR313	De minimis concentration	Copper compounds (Non-carcinogenic) Value: 1% Copper Compounds Value: < 1% by weight Arsenic compounds (Carcinogenic) Value: 0.1%

Clean Air Act Toxic ARP Section 112r:

CAA 112R	None established

Clean Air Act Socmi:

HON SOC	None established

Clean Air Act VOC Section 111:

CAA 111	None established

Clean Air Act Haz. Air Pollutants Section 112:

ZUS_CAAHAP	None established
ZUS_CAAHRP	None established
CAA AP	None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
1317-38-0	COPPER OXIDE
7778-39-4	ARSENIC ACID

ZUSPA_RTK

Pennsylvania: Hazardous substance list
1989-08-11
CHROMIC ACID
Environmental hazard

Pennsylvania: Hazardous substance list
1990-01-01
COPPER COMPOUNDS
Environmental hazard, hazardous substance

Pennsylvania: Hazardous substance list
1989-08-11
ARSENIC ACID
Environmental hazard

New Jersey:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
1317-38-0	COPPER OXIDE
7778-39-4	ARSENIC ACID

ZUSNJ_RTK

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
CHROMIC ACID CHROMIUM(6+) ACID
Special Health Hazard - Carcinogen, Special Health Hazard - Corrosive

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
1989-12-01
COPPER compounds
hazardous substance

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
1989-12-01
COPPER, all inorganic compounds of
hazardous substance

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
COPPER COMPOUNDS

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
ARSENIC ACID ARSENIC ACID (H3AsO4)
Special Health Hazard - Carcinogen

Massachusetts:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
7778-39-4	ARSENIC ACID

ZUSMA_RTK

Massachusetts Right to Know List of Chemicals and Hazard Classifications
1993-04-24
CHROMIC ACID

Massachusetts Right to Know List of Chemicals and Hazard Classifications
1993-04-24
ARSENIC ACID

California Proposition 65:

CAS #	COMPONENT NAME

7738-94-5	CHROMIC ACID (CRO3)
7778-39-4	ARSENIC ACID

ZUSCA_P65

California Proposition 65. Safe drinking water and toxic enforcement act.
Chromium (hexavalent compounds)
Carcinogen

California Proposition 65. Safe drinking water and toxic enforcement act.
Arsenic (inorganic arsenic compounds)
Carcinogen

WHMIS Hazard Classification:
None established

16. OTHER INFORMATION

MSDS REVISION STATUS :	Revised to meet the ANSI standard of 16 sections
SECTIONS REVISED:	1
Major References :	Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.

MATERIAL SAFETY DATA SHEET
Revised September 17, 2010

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Wolmanized® Heavy Duty™ Wood
General Use:
Synonyms: Chromated Copper Arsenic (CCA) treated poles, piles, timber, posts, or plywood

MANUFACTURER: **EMERGENCY TELEPHONE NUMBERS:**

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	PERCENT[1]	CAS #	EXPOSURE LIMITS (mg/m3 except where noted)		
			OSHA-PEL	ACGIH-TLV	OSHA-STEL
Chrome III (as Cr)	<3	7440-47-3	0.5	0.5	None
Chrome VI[2]	Trace	18540-29-9	5µg/m^3 2. 5µg/m^3 (action level)	0.01 (as Cr)	0.1 (as CrO_3) Ceiling
Arsenic V (as As)[3]	<3	7440-38-2	0.01	0.01	None
Copper Oxide (as Cu) (dusts/mists)	<3	7440-50-8	1.0	1.0	None
Wood Dust[4] Western Red Cedar All other Species	>91	N/A	 15(total) 5.0 (respirable) 15(total) 5.0 (respirable)	 0.5 (inhalable) 1.0 (inhalable)	None
Formaldehyde[5]	<0.1	50-00-0	0.75ppm	0.37 (Ceiling)	2ppm

Notes: Chromic Acid, Arsenic Acid, and Copper oxide are present in the preservative used to treat this wood
[1]Actual retention may vary due to differences in wood stock and treatment retention levels.
[2]Although the Chrome VI present in the Chromic Acid used to treat this wood is reduced to Chrome III during the treating and fixation processes, some Chrome VI may be present. Due to this, OSHA's Hexavalent Chromium Rule (29 CFR 1910.1026) may apply. The manufacturer of this treated wood has monitoring data indicating the levels will be below the established limits and action levels when used under usual conditions. If unusual circumstances exist, monitoring may be required.
[3]The arsenic pentoxide present in this product is not subject to the OSHA Arsenic standard 29CFR 1910.1801
[4]A state-run OSHA program may have more stringent limits for wood dust and/or PNOR.
[5]Only applies to Plywood Products

3. HAZARDS IDENTIFICATION

WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR (DURING PROCESSING)

Inhalation: Airborne treated or untreated wood dust may cause nose, throat or lung irritation. Various species of untreated wood dust can elicit allergic respiratory response in sensitized persons.
Eye Contact: Treated or untreated wood dust may cause mechanical irritation.
Skin Contact: Handling wood may result in skin exposure to splinters. Prolonged and/or repeated contact with treated or untreated wood dust may result in mild irritation. Various species of untreated wood dust can elicit allergic type skin irritation in sensitized persons.
Ingestion: Not anticipated to occur. A single ingestion of a very large dose of treated wood dust may require immediate medical attention.
Chronic Wood Dust (treated or untreated) Effects: Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; may cause respiratory sensitization and/or irritation.

4. FIRST AID MEASURES

Inhalation: Remove from wood dust exposure. If breathing has stopped, administer artificial respiration. Seek medical aid if symptoms persist.
Eye Contact: Gently flush any particles from the eyes with large amounts of water for at least 15 minutes. DO NOT RUB THE EYES. Seek medical aid if irritation persists.

4. FIRST AID MEASURES (Con't)

Skin Contact: Rinse wood dust off with water. DO NOT RUB. Once the skin is free of the wood dust, wash thoroughly with soap and water. Seek medical aid if severe irritation develops.
Ingestion: Rinse the victim's mouth out with water. Do not induce vomiting. If symptoms develop, call a physician. One ounce of treated wood dust per 10 pounds of body weight ingested may cause acute arsenic intoxication.

5. FIRE FIGHTING MEASURES

Flash Point	NA	**Lower Explosive Limit**	NA
Auto-ignition	NA	**Upper Explosive Limit**	NA

Extinguishing Agents: Not applicable
Fire-Fighting Procedures: Fire from a separate fuel source may be intense enough to cause thermal decomposition releasing toxic fumes and/or gases. Wear complete fire service protective equipment, including full-face NIOSH/NFPA – approved self-containing breathing apparatus.
Fire and Explosion Hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. High airborne levels of wood dust may burn rapidly in the air when exposed to an ignition source.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Not applicable.
Waste Disposal: See Section 13.
Other: Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Nonsparking tools should be used.

7. HANDLING AND STORAGE

Storage Conditions: Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Maintain good housekeeping. Protect from physical damage.

Caution: DO NOT BURN TREATED WOOD. Do not use pressure treated chips or sawdust as mulch. Whenever possible, sawing or machining treated or untreated wood should be performed outdoors to avoid accumulations of airborne wood dust. Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms.
NOTE: For plywood products only, provide adequate ventilation to reduce the possible buildup of formaldehyde vapors.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: None normally required. When sawing or cutting treated or untreated wood, wear a NIOSH approved N95 or better dust mask.
Eye Protection: Wear safety glasses with side shields or safety goggles when sawing or cutting.
Skin/Foot Protection: Wear leather or comparable gloves to prevent splinters. Wear long sleeve shirt, pants and steel toed shoes when handling treated or untreated wood
Ventilation: Saw, cut or machine wood outdoors or in well ventilated areas. Due to the explosive potential of dust when suspended in air, precautions should be taken when sawing, sanding, or machining wood or wood products to prevent sparks or other ignition sources. If required, use wet methods and/or explosion suppression systems to reduce generation of dust. Local exhaust ventilation is recommended when sawing, sanding, or machining this product. General dilution ventilation is recommended in processing and storage areas.
Other Protective Equipment: Wear ear plugs or muffs when using power tools.
NOTE: For plywood products only, if Formaldehyde vapor level exceeds OSHA PEL or STEL, then a NIOSH approved respirator is required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light to dark green	**Specific Gravity (Water =1)**	NA
Odor	None	**Boiling Point**	NA
Solubility in Water	NA	**Vapor Density (Air=1)**	NA
Physical State	Solid	**Vapor Pressure**	NA
pH	NA	**Freezing Point**	NA

10. STABILITY AND REACTIVITY

Conditions Contributing to Instability: None known.
Incompatibilities: Strong acids, open flame and oxidizers.
Hazardous Reactions/Decomposition/Combustion Products: Contact with strong acid may release metals. Combustion products may include smoke, oxides of carbon, nitrogen and copper. If the fire is intense enough, some arsenic trioxide may be released into the smoke. The metals will remain in the ash if the wood is burned.
Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Study Abstracts: In Hawaii, where over 45,000 homes have been built almost entirely of CCA-treated wood, a study was conducted by the Pacific Biomedical Center of the University of Hawaii (the Budy-Rashad study) in 1977 to determine any possible effect on the health of carpenters. The study concluded that exposure to CCA-treated sawdust is not associated with increased risk of total cancer, lung cancer or lymphatic cancer and shows that excess respiratory cancer mortality was not observed in the carpenters.

A study was conducted by the University of Alabama to evaluate the teratogenicity of CCA-impregnated sawdust when exposed to rabbits and mice. Sawdust from CCA-treated wood has been shown not to cause chromosome damage or teratogenic effects in mice fed sawdust nor to cause birth defects in rabbits receiving sawdust applied to their skin.

According to a Human Health Risk Assessment conducted by Gradient Corporation in August 2004, potential health risks to workers and residents do not exceed U.S. Environmental Protection Agency acceptable risk limits. Although the arsenic complex (the predominate chemical form of arsenic in CCA-treated wood is chromium III arsenate) is present on the surface of CCA-treated utility poles and in surrounding soils, the arsenic in these poles is chemically bonded to the wood and is not readily absorbed in the body. This risk assessment evaluated exposures to arsenic complex on the surface of CCA treated utility poles and in soil adjacent to the poles. Exposure was evaluated for both hand to mouth contact and skin contact for a child resident age 2-6 and an adult utility pole worker. The assessment results also indicate that the amount of arsenic complex potentially taken into the body from exposures to CCA-treated utility poles and adjacent soils for a child resident is approximately 8 fold less than the intake of naturally occurring inorganic arsenic in food and drinking water at the new federal drinking water standard for arsenic. An adult worker is exposed to over 24 fold less arsenic complex associated with CCA-treated utility poles, compared to intake of inorganic arsenic form food and drinking water.

Carcinogenic status: IARC, the NTP, OSHA and California Proposition 65 do not consistently distinguish among arsenic or chrome species but list inorganic arsenic and chromium and certain chromium compounds as human carcinogens. Cancers in humans have followed from long term consumption of Fowler's Solution, a medicinal trivalent arsenical; inhalations and skin contact with inorganic trivalent arsenical sheep-dust; the combined inhalation of arsenic trioxide (trivalent arsenical), sulfur dioxide, and other particulates from ore smelting in arsenic trioxide production; and occupational exposure to nonwater-soluble hexavalent chromium.

Carcinogenicity Data: IARC has classified untreated hardwood and hardwood/softwood mix wood dust as a Group I human carcinogen. The wood dust classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with occupational exposures to untreated wood dust. NTP has classified all untreated wood dust as a carcinogen.

12. ECOLOGICAL INFORMATION

Study Abstracts: A technical paper published in the Forest Products Journal (September, 1974) by Levi, Huisingh and Nesbitt described a study conducted to determine if CCA wood preservative in grapevine support posts might be absorbed by the vines, leaves and/or grapes. This study concluded that "... CCA preservatives are bound in wood, are not readily leached and are not concentrated in plants growing close to the treated wood."

The Springborn Laboratories Environmental Sciences Division in 1993 conducted a sediment exposure study using leachate from CCA treated and untreated marine pilings and exposing Ampelisca abdita for a period of 10 days. Survival of the organisms during the 10-day exposure period was the biological endpoint used to establish the effects of exposure. Results indicated that leachate from treated pilings had no adverse effect on organism survival. It was concluded that the primary constituents of the CCA-treated wood piling were not present in the leachate at concentrations which would adversely affect the survival of the organisms.

Testing has been conducted to evaluate the use of treated wood in raised vegetable gardens. Vegetables harvested from gardens in raised bed structures built of CCA-treated wood were compared with vegetables grown in untreated raised bed structures and with vegetables purchased at a local grocery store. Testing revealed that all vegetables contained minuscule amounts of each element in CCA. In some cases, the levels of metals were actually higher in the vegetables grown in untreated bins, and in one case the store-purchased vegetable had the highest level of arsenic. The report concluded that there was "no uptake of the metal constituents into the vegetables."

The Food and Drug Administration's (FDA) "Market Basket Survey" has consistently shown that arsenic in tomatoes is below the analytical level of detection despite the increased usage of arsenically-treated wood for tomato stakes. Moreover, even though CCA-treated wood has been increasingly used in applications such as cattle bunks and stalls and poultry brooders for the last ten years, the FDA survey has shown a decrease in the arsenic content of dairy, meat and poultry products.

A study funded in part by the National Oceanic and Atmospheric Administration (NOAA) and prepared by the Marine Resources Division of the South Carolina Department of Natural Resources in 1995 measured the impact of wood preservative leachate from docks in an estuarine environment. Copper, chromium, arsenic, and polynuclear aromatic hydrocarbons (PAHs) were measured in composite samples of sediments and naturally occurring oyster populations from creeks with high densities of docks, and from nearby reference creeks with no docks. Sediments from all but one site had metal and total PAH concentrations which were below levels reported to cause biological effects, and the oysters showed no significant difference in their physiological condition. Bioassays were also conducted on four common estuarine species and hatchery-reared oysters. The results suggest that wood preservative leachates from dock pilings have no acutely toxic effects on these common species, nor do they affect the survival or growth of juvenile oysters over a six-week period. In some cases, metal leachates may accumulate in sediments and oysters immediately adjacent to pilings, but do not appear to become concentrated in sediments or oysters elsewhere in the same creeks.

13. DISPOSAL CONSIDERATIONS

Disposal Guidance: DO NOT BURN TREATED WOOD. Do not use pressure treated chips or sawdust as mulch. Dispose of in accordance with local, state and federal regulations. This product is exempted as a hazardous waste under any sections of the RCRA regulations as long as the product is being utilized for its intended end use as stated in 40 CFR 261.4 (b) (9). State run hazardous waste programs may be more stringent.

14. TRANSPORT INFORMATION

DOT Hazardous Material Classification: This material is not regulated as a hazardous material by the DOT.

15. REGULATORY INFORMATION

RCRA (40 CFR 261): DO NOT BURN TREATED WOOD. Do not use pressure treated chips or sawdust as mulch. Dispose of in accordance with local, state and federal regulations. This product is exempted as a hazardous waste under any sections of the RCRA regulations as long as the product is being utilized for its intended end use as stated in 40 CFR 261.4 (b) (9). Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Check local and state regulations, as they may be more stringent.
OSHA (29 CFR 1910.1200): This product is regulated under the Hazard Communication Standard.
SARA 313 (40 CFR 372): Unless exempted, this product may require a Toxic Release Inventory reporting for individual material uses of 25,000 pounds or more. Reporting is under Copper Compounds, Chromium Compounds and Arsenic Compounds. It is the user's responsibility to determine applicability of reporting requirements and exemptions.
California Proposition 65: This product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. (This statement issued in accordance with California Proposition 65).
NFPA: Refer to NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*, for safe handling.

ABBREVIATIONS

OSHA	Occupational Safety and Health Administration	**TLV**	Threshold Limit Value
NFPA	National Fire Protection Association	**STEL**	Short-Term Exposure Limit
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act	**RCRA**	Resource Conservation and Recovery Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	**ACGIH**	American Conference of Governmental Industrial Hygienists
SARA	Superfund Authorization and Reauthorization Act	**NIOSH**	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limit	**TSCA**	Toxic Substances Control Act
DOT	Department of Transportation	**IARC**	International Agency for Research on Cancer
NTP	National Toxicology Program	**IBC**	International Building Code
CFR	Code of Federal Regulations	**mg/m3**	Milligrams per cubic meter
CWA	Clean Water Act	**CAA**	Clean Air Act
CAS	Chemical Abstracts Service		

NOTICE: While the information and recommendations set forth herein are believed to be accurate as of the date hereof this company makes no guarantee or warranty, expressed or implied, as to the accuracy, reliability, or completeness of the information.

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: **WOLMANAC® Concentrate 60%**
EPA Registration Number: 62190-14, Canadian Registration Number: 21226

1. PRODUCT AND COMPANY IDENTIFICATION

Arch Wood Protection, Inc.
5660 New Northside Drive, NW
Suite 1100
Atlanta, GA 30328

REVISION DATE:	10/13/2009
SUPERCEDES:	04/02/2009
MSDS Number:	000000001388
SYNONYMS:	Chromated Copper Arsenate
CHEMICAL FAMILY:	Inorganic acid
DESCRIPTION / USE:	Restricted Use - Wood Preservative
FORMULA:	None established

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification:	**Toxic by ingestion, dermal contact, and inhalation, Corrosive to eyes, skin and mucous membranes, Lung toxin, Carcinogen., Possible skin sensitizer**

Routes of Entry:	Inhalation, skin, eyes, ingestion
Chemical Interactions:	No known or reported interactions.
Medical Conditions Aggravated:	Respiratory diseases including asthma and bronchitis, Preexisting skin, liver, kidney, or eye disorders may be aggravated by overexposure

Human Threshold Response Data

Odor Threshold	Not established for product.
Irritation Threshold	Not established for product.

Hazardous Materials Identification System / National Fire Protection Association Classifications

Hazard Ratings :	Health	Flammability	Physical / Instability	PPI / Special hazard.
HMIS	3*	0	0	
NFPA	3	0	0	

Immediate (Acute) Health Effects

Inhalation Toxicity:	Toxic by inhalation. Exposure to high concentrations may result in alterations to the liver. Inhalation of this material may produce severe irritating and/or corrosive effects to the nose, mouth, throat, and respiratory tract. It may cause burns which can result in symptoms which may include coughing, wheezing, choking, shortness of breath, chest pain, and impairment of lung function. Inhalation of high concentrations can also result in permanent lung damage.
Skin Toxicity:	Toxic if absorbed through the skin. Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged skin exposure may cause permanent damage.
Eye Toxicity:	Corrosive. Burns can occur following exposure. Direct contact may cause impairment of vision, corneal damage and/or blindness. Rinsing of the eye should take place immediately.
Ingestion Toxicity:	Toxic if swallowed. Exposure to large quantities of this material may result in liver and kidney damage, based on animal studies. Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration or perforation. Aspiration may lead to lung damage.
Acute Target Organ Toxicity:	This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Prolonged (Chronic) Health Effects

Carcinogenicity:	The International Agency for Research on Cancer (IARC) has classified a component or components of this product as a Group 1 substance, Carcinogenic to Humans.
Reproductive and Developmental Toxicity:	No reproductive or developmental risk to humans is expected from exposure to this product.
Inhalation:	Prolonged or repeated inhalation may cause lung damage. May cause: Dental erosion
Skin Contact:	Prolonged or repeated exposure may cause extensive permanent skin damage.
Skin Absorption:	Prolonged or repeated exposure, may result in toxic amounts being absorbed through the skin.
Ingestion:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure. The acute corrosivity of this product, makes chronic ingestion of significant amounts unlikely.
Eye Contact:	Prolonged contact may result in permanent damage. Corneal involvement or visual impairment is expected.
Sensitization:	May cause allergic skin sensitization in some individuals.

Chronic Target Organ Toxicity:	Chronic overexposure to this product may cause damage to the skin, respiratory tract, teeth and eyes.
Supplemental Health Hazard Information :	No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME	CAS #	% RANGE
CHROMIC ACID (CRO3)	7738-94-5	- 28.50
COPPER OXIDE	1317-38-0	- 11.1
ARSENIC ACID	7778-39-4	- 60.00

Product (CCA Concentrate 60%)

4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Notes to Physician: Massive overexposure to chromic acid could lead to kidney failure and death. Death has been avoided in several such cases through the use of early renal dialysis. An effective treatment has been shown to be administration of ascorbic acid by mouth or intravenously.Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA): *Product is not known to be flammable, combustible or pyrophoric.*

Flammable Properties

Flash Point:	Not applicable
Autoignition Temperature:	Not applicable
Fire / Explosion Hazards:	Material will not ignite or burn. Closed containers may explode (due to the build up of steam pressure) when exposed to extreme heat. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Extinguishing Media:	Choose extinguishing media suitable for surrounding materials.
Fire Fighting Instructions:	Response to this material requires the use of a full encapsulated suit and full-face (NIOSH approved) self-contained breathing apparatus (SCBA). Use water to cool containers.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Upper Flammable / Explosive Limit, % in air:	Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations:	Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release:	Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste.
Water Release:	This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste.

Land Release:	Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Do not place spill materials back in their original containers. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste.
Additional Spill Information :	Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

7. HANDLING AND STORAGE

Handling:	Handle in accord with label precautions. An eye wash and safety shower should be provided in the immediate work area. Avoid breathing mist or vapor. Do not take internally. Avoid contact with skin, eyes and clothing by wearing proper protective equipment. Upon contact with skin or eyes, wash off with water. Use only with adequate ventilation. Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms.
Storage:	Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Protect from physical damage. Keep away from food and drinking water. Keep containers tightly closed when not in use.
Incompatible Materials for Storage:	organic materials with high surface area such as rags, cotton waste, sawdust, etc. galvanized metal strong alkalies aluminum alloys zinc Reducing agents
Empty Container Warning:	Empty containers retain product residue (liquid and/or vapor) and can be dangerous.Offer empty container for recycling or dispose of in accordance with all federal, state, or local requirements.If empty containers are disposed (not recycled), containers must be triple rinsed to ensure removal of all product. All rinse water should always be directed into a sump or pit that is pumped back to the makeup water tank. All product labels should be removed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection :	Wear a NIOSH approved respirator if levels above the exposure limits are possible.
Respirator Type :	A NIOSH approved air purifying respirator with acid gas cartridge and P100

	filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit. A NIOSH approved full-face or half-face respirator in combination with chemical goggles.
Skin Protection :	Wear impervious gloves, boots and apron to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.
Eye Protection:	Use chemical goggles and a faceshield.
Protective Clothing Type:	Polyvinyl chloride, Polyethylene, Butyl rubber
General Protective Measures:	An eye wash and safety shower should be provided in the immediate work area. OSHA's Inorganic Acid and Hexavalent Chromium Standards do not apply to workers applying this pesticide in accordance with the label instructions.

Exposure Limit Data

CHEMICAL NAME	CAS #	Name of Limit	Exposure
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAP1	0.005 mg/m3 TWA See 1910.1026. See Table Z-2 for the exposure Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in 1910.1026 is stayed or are otherwise not in effect.
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAP2	0.001 mg/m3 Calculated as CrO3 CEIL This standard applies to any operations or sectors for which the exposure limit in the Chromium (VI) standard, Sec. 1910.1026, is stayed or is otherwise not in effect., Z37.7-1971
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAPO	0.1 mg/m3 Calculated as CrO3 CEIL See Table Z-2.

CHROMIC ACID (CRO3)	7738-94-5	ZUS_ACGIH	0.05 mg/m3 Calculated as Cr TWA soluble NOC = not otherwise classified., 1994-1995 Adoption, Substances for which there is a Biological Exposure Index or Indices (see BEI® section), Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL., Substance identified by other sources as a suspected or confirmed human carcinogen., Refers to Appendix A -- Carcinogens.
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAP2	1 mg/10m3 CEIL
CHROMIC ACID (CRO3)	7738-94-5	ZUS_OSHAPO	
CHROMIC ACID (CRO3)	7738-94-5	NIOSH-IDLH	250 mg/m3
COPPER OXIDE	1317-38-0	NIOSH-IDLH	100 mg/m3
ARSENIC ACID	7778-39-4	ZUS_OSHAP1	0.01 mg/m3 Calculated as As TWA
ARSENIC ACID	7778-39-4	ZUS_OSHAPO	0.01 mg/m3 Calculated as As TWA Sec. 1910.1018 Inorganic arsenic.
ARSENIC ACID	7778-39-4	ZUS_ACGIH	0.01 mg/m3 Calculated as As TWA Substances for which there is a Biological Exposure Index or Indices (see BEI® section), Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL., Substance identified by other sources as a suspected or confirmed human carcinogen., Refers to Appendix A -- Carcinogens.

ARSENIC ACID	7778-39-4	NIOSH-IDLH	5 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	Free flowing
Color:	Orange/brown
Odor:	faint, Metallic
Molecular Weight:	None established
Specific Gravity :	Approximately1.8000
pH :	Approximately < 2.0
Boiling Point:	107 DEG°C / 224 DEG°F
Freezing Point:	-30 DEG°C / -22 DEG°F
Melting Point:	Not applicable
Density:	approx.15.0000lb/gal
Vapor Pressure:	Not available
Vapor Density:	Not available
Viscosity:	77.00 DEG°F 23.000 CPS
Fat Solubility:	No data
Solubility in Water:	soluble
Partition coefficient n-octanol/water:	Not available.
Evaporation Rate:	No data
Oxidizing:	The substance has no oxidizing properties
Volatiles, % by vol.:	Water
VOC Content	Not applicable
HAP Content	No data

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions. Product will not undergo hazardous polymerization.
Conditions to Avoid:	Sparks, open flame, other ignition sources, and elevated temperatures.
Chemical Incompatibility:	Organic materials with high surface area such as rags, cotton waste, sawdust, etc., galvanized metal, strong alkalies, aluminum alloys, zinc, Reducing agents
Hazardous Decomposition Products:	Chromium, arsenic, and copper fumes, Toxic arsine gas can be generated in the presence of aluminum and zinc reducing agents under certain conditions.
Decomposition Temperature:	No data

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology
Oral LD50 value:

CHROMIC ACID (CRO3)	LD50 = 80 mg/kg Rat
COPPER OXIDE	LD50 (97.6% Active Ingredient) > 5,050 mg/kg Rat
ARSENIC ACID	LD50 (75% Active Ingredient) = 134 mg/kg Rat

Dermal LD50 value:

CHROMIC ACID (CRO3)	No data
COPPER OXIDE	LD50 (97.6% Active Ingredient) > 2,020 mg/kg Rabbit
ARSENIC ACID	No data

Inhalation LC50 value:

CHROMIC ACID (CRO3)	No data
COPPER OXIDE	Inhalation LC50 4 h (97.6% Active Ingredient) > 2.08 MG/L Rat
ARSENIC ACID	Inhalation LC50 1 h (aerosol), (Whole-body), (75% Active Ingredient) = 1.16 MG/L Rat
ARSENIC ACID	Inhalation LC50 4 h (aerosol), (Whole-body), (75% Active Ingredient) = 0.29 MG/L Rat

Product Animal Toxicity

Oral LD50 value:	LD50 = 188 mg/kg Rat FemaleLD50 = 192 mg/kg Rat Male
Dermal LD50 value:	LD50 = 520 mg/kg Rabbit
Inhalation LC50 value:	Inhalation LC50 Believed to be > 2.0 and < 3.6 mg/l (1 hr., rat) (aerosol), based on a terminated study.
Skin Irritation:	This material is expected to be corrosive.
Eye Irritation:	This material is expected to be corrosive.
Skin Sensitization:	May cause allergic skin sensitization in some individuals.

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Subchronic / Chronic Toxicity: Chronic overexposure to this product may cause damage to the skin, respiratory tract, teeth and eyes.

Reproductive and Developmental Toxicity: At high doses significant maternal toxicity and fetotoxicity was observed. However, no developmental or teratogenic effects were observed.

ARSENIC ACID — This product has been tested in laboratory animals and was found to cause developmental toxicity only at maternally toxic doses.

Mutagenicity: Not known or reported to be mutagenic.

CHROMIC ACID (CRO3) — Not known or reported to be mutagenic.

Carcinogenicity: The International Agency for Research on Cancer (IARC) has classified a component or components of this product as a Group 1 substance, Carcinogenic to Humans.

CHROMIC ACID (CRO3) — Cancers in humans have followed from long term occupational exposure to nonwater-soluble hexavalent chromium. Insoluble forms of hexavalent chromium have been shown to be a human carcinogen by inhalation. Other routes of exposure are not classifiable as to human carcinogenicity.

ARSENIC ACID	The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 1 substance, Carcinogenic to Humans.

12. ECOLOGICAL INFORMATION

Overview: Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems., Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Ecological Toxicity Values for: **COPPER OXIDE**

Mosquito fish - (nominal, static). 96 h LC50 > 56,000 mg/l

Ecological Toxicity Values for: **Product (CCA Concentrate 60%)**

Bluegill sunfish	-	96 h LC50 = 90.3 mg/l (CCA Concentrate 40%)
Rainbow trout (Oncorhynchus mykiss)	-	96 h LC50 = 0.84 mg/l (CCA Concentrate 40%)
Mallard duck	-	8 day dietary LD50 > 4,640 ppm (CCA Concentrate 40%)
Bobwhite quail	-	8 day dietary LD50 = 920 ppm (CCA Concentrate 40%)

13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary : If this product becomes a waste, it will be a hazardous waste.

Potential US EPA Waste Codes : D004, D007

14. TRANSPORT INFORMATION

Land (US DOT): UN2922 RQ, CORROSIVE LIQUID, TOXIC, N.O.S. (ARSENIC ACID,

	CHROMIC ACID) 8 6.1 II No
Water (IMDG):	UN2922 RQ, CORROSIVE LIQUID, TOXIC, N.O.S., (ARSENIC ACID, CHROMIC ACID) 8 6.1 II MARINE POLLUTANT
	Flash Point: Not applicable
Air (IATA):	UN2922 RQ, CORROSIVE LIQUID, TOXIC, N.O.S., (ARSENIC ACID, CHROMIC ACID) 8 6.1 II
Emergency Response Guide Number:	ERG # 154
Transportation Notes:	Material is not regulated as a marine pollutant for ground transportation within the US if shipped in non-bulk packages.
EMS:	F-A, S-B

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA):	This is an EPA registered pesticide.
EPA Pesticide Registration Number:	62190-14, Canadian Registration Number: 21226
FIFRA Listing of Pesticide Chemicals (40 CFR 180):	This product is regulated under the Federal Insecticide, Fungicide and Rodenticide Act. "It must be used for purposes consistent with its labeling." Restricted Use Pesticide DUE TO ACUTE TOXICITY AND BECAUSE THIS PRODUCT CONTAINS ARSENIC AND/OR CHROMIUM COMPOUNDS SOME TYPES OF WHICH HAVE BEEN ASSOCIATED WITH TUMOR DEVELOPMENT IN HUMANS For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator certification.

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

Health	Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
Physical	None

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

ZUS_SAR302	TPQ (threshold planning quantity)	None established

Reportable Quantity (49 CFR 172.101, Appendix):

ZUS_CERCLA	Reportable quantity	If >1/2 gallon (7.5 lbs) as CCA 60% is released into the environment, the arsenic RQ of 1 pound will be exceeded.CHROMIC ACID Value: 10lbs Lead Lead (D008)

		Value: 10lbs Lead Lead (D008) Value: 10lbs Arsenic acid H3AsO4 Value: 1lbs
ZUS_SAR302	Reportable quantity	None established

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

ZUS_SAR313	De minimis concentration	Lead Value: 0.1% Arsenic compounds (Carcinogenic) Value: 0.1%

Clean Air Act Toxic ARP Section 112r:
CAA 112R None established

Clean Air Act Socmi:
HON SOC None established

Clean Air Act VOC Section 111:
CAA 111 None established

Clean Air Act Haz. Air Pollutants Section 112:
ZUS_CAAHAP None established

ZUS_CAAHRP None established

CAA AP None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
1317-38-0	COPPER OXIDE
7439-92-1	LEAD
7778-39-4	ARSENIC ACID

ZUSPA_RTK

Pennsylvania: Hazardous substance list
1989-08-11
CHROMIC ACID
Environmental hazard

Pennsylvania: Hazardous substance list
1990-01-01

COPPER COMPOUNDS
Environmental hazard, hazardous substance

Pennsylvania: Hazardous substance list
1990-01-01
LEAD
Environmental hazard, hazardous substance

Pennsylvania: Hazardous substance list
1989-08-11
LEAD
Environmental hazard

Pennsylvania: Hazardous substance list
1989-08-11
ARSENIC ACID
Environmental hazard

New Jersey:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
1317-38-0	COPPER OXIDE
7439-92-1	LEAD
7778-39-4	ARSENIC ACID

ZUSNJ_RTK

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
CHROMIC ACID CHROMIUM(6+) ACID
Special Health Hazard - Carcinogen, Special Health Hazard - Corrosive

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
1989-12-01
COPPER compounds
hazardous substance

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
1989-12-01
COPPER, all inorganic compounds of
hazardous substance

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
COPPER COMPOUNDS

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
LEAD
Special Health Hazard - Carcinogen, Special Health Hazard - Teratogen

New Jersey Right to Know Hazardous Substance List (RTK-HSL)
2007-03-01
ARSENIC ACID ARSENIC ACID (H3AsO4)
Special Health Hazard - Carcinogen

Massachusetts:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
7439-92-1	LEAD
7778-39-4	ARSENIC ACID

ZUSMA_RTK

Massachusetts Right to Know List of Chemicals and Hazard Classifications
1993-04-24
CHROMIC ACID

Massachusetts Right to Know List of Chemicals and Hazard Classifications
1993-04-24
LEAD
Teratogen. Sufficient evidence of teratogenic risk in humans.

Massachusetts Right to Know List of Chemicals and Hazard Classifications
1993-04-24
ARSENIC ACID

California Proposition 65:

CAS #	COMPONENT NAME
7738-94-5	CHROMIC ACID (CRO3)
7439-92-1	LEAD
7778-39-4	ARSENIC ACID

ZUSCA_P65

California Proposition 65. Safe drinking water and toxic enforcement act.
Chromium (hexavalent compounds)
Carcinogen

California Proposition 65. Safe drinking water and toxic enforcement act.
Maximum Allowable Dose Level 0.5 µg/day
Lead
Developmental toxin. Female reproductive toxin. Male reproductive toxin

California Proposition 65. Safe drinking water and toxic enforcement act.
No Significant Risk Levels 15 µg/day
oral intake
Lead

Developmental toxin. Female reproductive toxin. Male reproductive toxin

California Proposition 65. Safe drinking water and toxic enforcement act.
Maximum Allowable Dose Level
Lead

California Proposition 65. Safe drinking water and toxic enforcement act.
No Significant Risk Levels 15 micrograms per day
Oral
Lead

California Proposition 65. Safe drinking water and toxic enforcement act.
Lead
Female reproductive toxin.

California Proposition 65. Safe drinking water and toxic enforcement act.
Lead
Carcinogen

California Proposition 65. Safe drinking water and toxic enforcement act.
Lead
Male reproductive toxin

California Proposition 65. Safe drinking water and toxic enforcement act.
Lead
Developmental toxin.

California Proposition 65. Safe drinking water and toxic enforcement act.
Arsenic (inorganic arsenic compounds)
Carcinogen

WHMIS Hazard Classification

Ingredient Disclosure List (WHMIS)
2007-08-24
Threshold limits: 1 Weight %
79
Chromic acid

Ingredient Disclosure List (WHMIS)
1988-01-20
Threshold limits: 1 Weight %
431
COPPER COMPOUNDS, N.O.S.

Ingredient Disclosure List (WHMIS)
2007-08-24
Threshold limits: 1 Weight %
577
Copper compounds

Ingredient Disclosure List (WHMIS)
1988-01-20
Threshold limits: 0.1 Weight %
940
LEAD, ELEMENTAL

Ingredient Disclosure List (WHMIS)
2007-08-24
Threshold limits: 0.1 Weight %
65
Arsenic acid

16. OTHER INFORMATION

MSDS REVISION STATUS :	Revised to meet the ANSI standard of 16 sections.
SECTIONS REVISED:	14
Major References :	Available upon request.

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