

SAFETY DATA SHEET

SDS IDENTIFICATION NAME: V-Wrap PF Resin-A

DATE: 11/06/2015

PAGE: 1 OF 5

SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

MANUFACTURER:
STRUCTURAL TECHNOLOGIES, LLC
10150 Old Columbia Road
Columbia, MD 21046

EMERGENCY TELEPHONE NUMBER:
1-800-424-9300
INFORMATION TELEPHONE NUMBER:
1-410-859-6539

CHEMICAL FAMILY: Epoxy Adhesive

SECTION II: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR:

White. Liquid. Slight odor. May cause slight irritation to the respiratory system. Leave area to breathe fresh air. Avoid further exposure. If symptoms persist, get medical attention.

STATEMENTS OF HAZARD:

CAUSES EYE AND SKIN IRRITATION, HARMFUL IF ABSORBED THROUGH SKIN, MAY CAUSE ALLERGIC REACTION, CALL POISON CENTER IF INGESTED.

PRIMARY ROUTES OF EXPOSURE:

EYES--YES

SKIN CONTACT--YES

INHALATION--YES

INGESTION--NO

PICTOGRAM:



SIGNAL WORD: WARNING!

PRECAUTIONARY STATEMENTS:

PREVENTION: Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

RESPONSE: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

UNKNOWN TOXICITY - HEALTH

Acute toxicity, oral	24.53 %
Acute toxicity, dermal	25.5 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	99.52 %

UNKNOWN TOXICITY - ENVIRONMENT

Acute hazards to the aquatic environment	98.78 %
Chronic hazards to the aquatic environment	100 %

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	CAS NUMBER	% BY WEIGHT
Bisphenol A Polyglycidyl Ether Resin	25068-38-6	60 – 100%
Titanium dioxide	13463-67-7	0.5 – 1.5%
Petroleum distillates	64742-47-8	0.1 – 1%

SECTION IV: FIRST AID MEASURES

GENERAL: Get immediate medical attention for any significant overexposure.

EYES: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

SKIN CONTACT: If skin irritation occurs, wash skin with soap and plenty of water. Immediately remove contaminated clothing and shoes, destroy or thoroughly clean contaminated articles. If skin irritation or an allergic skin reaction develops, get medical advice/attention.

INHALATION: Leave area to breath fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

INGESTION: Rinse mouth with water. Do not induce vomiting unless advised by a physician. Call nearest Poisson Control Center or Physician immediately.

SECTION V: FIRE FIGHTING MEASURES

GENERAL FIRE HAZARDS: No unusual fire or explosion hazards noted.

SUITABLE EXTINGUISHING MEDIA: Use fire-extinguishing media appropriate for surrounding materials.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: During fire, gases hazardous to health may be formed.

SPECIAL FIRE FIGHTING PROCEDURES: No data available.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION VI: ACCIDENTAL RELEASE MEASURES

PROCEDURES IN CASE OF ACCIDENTAL RELEASE OF LEAKAGE: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth, or other suitable material. Transfer to appropriate container for disposal. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION VII: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing.

CONDITIONS FOR SAFE STORAGE: Store locked up. Store in sealed containers in a dry, ventilated, and above freezing warehouse location.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS: Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

GENERAL INFORMATION: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

EYE/FACE PROTECTION: Wear safety glasses with side shields (or goggles).

SKIN PROTECTION: Use suitable protective gloves if risk of skin contact. Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

RESPIRATORY PROTECTION: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

HYGIENE MEASURES: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS

Chemical Identity	Type	Exposure Limit Values	Source
Titanium dioxide	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWAEV	10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

PHYSICAL STATE:

liquid

FORM:

liquid

COLOR:

White

ODOR:

Slight odor

pH:

No data available.

MELTING POINT/FREEZING POINT:

No data available.

BOILING POINT:

No data available.

FLASH POINT:

> 200°F / 93°C (Setaflash Closed Cup)

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES (CONTINUED)

EVAPORATION RATE:	Slower than Ether
FLAMMABILITY (solid, gas):	No
FLAMMABILITY OR EXPLOSIVE LIMITS	
FLAMMABILITY LIMIT - UPPER (%):	No data available.
FLAMMABILITY LIMIT - LOWER (%):	No data available.
EXPLOSIVE LIMIT - UPPER (%):	No data available.
EXPLOSIVE LIMIT - LOWER (%):	No data available.
VAPOR PRESSURE:	No data available.
VAPOR DENSITY:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
RELATIVE DENSITY:	1.17
SOLUBILITY IN WATER:	Miscible with water.
PARTITION COEFFICIENT(n-octanol/water):	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available.
VISCOSITY:	No data available.

SECTION X: STABILITY AND REACTIVITY

REACTIVITY: No data available.

CHEMICAL STABILITY: Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No data available

CONDITIONS TO AVOID: Avoid heat or contamination.

INCOMPATIBLE MATERIALS: Amines. Epoxides. Avoid contact with acids. Bases, alkalies (organic).

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION XI: TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.
Eye contact:	Causes eye irritation.

INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity (list all possible routes of exposure)

Oral Product:	No data available.
Dermal Product:	ATEmix: 3,826.44 mg/kg
Inhalation Product:	No data available.
Repeated dose toxicity Product:	No data available.

Skin Corrosion/Irritation Product: No data available.

Serious Eye Damage/ Irritation Product: No data available.
Specified substance(s):

Bisphenol A PolyglycidylEther Resin	in vivo (Rabbit, 24 hrs): Slightly irritating
Titanium dioxide	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Petroleum distillates	in vivo (Rabbit, 24 - 72 hrs): Not irritating

SECTION XI: TOXICOLOGICAL INFORMATION (CONTINUED)
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Respiratory or Skin Sensitization Product: No data available.

Carcinogenicity Product: Suspected of causing cancer

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Titanium dioxide Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro Product: No data available.

In vivo Product: No data available.

Reproductive Toxicity Product: No data available.

**Specific Target Organ Toxicity -
Single Exposure Product:**

No data available.

Specific Target Organ Toxicity -

Repeated Exposure Product: No data available.

Aspiration Hazard

Product: No data available.

SECTION XII: ECOLOGICAL INFORMATION
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ECOTOXICITY:

ACUTE HAZARDS TO THE AQUATIC ENVIRONMENT:

Fish Product: No data available.

Specified substance(s):

Titanium dioxide LC 50 (Mummichog (*Fundulus heteroclitus*), 96 h): > 1,000 mg/l Mortality
 Petroleum distillates LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 96 h): 2.9 mg/l Mortality

Aquatic Invertebrates Product: No data available.

Specified substance(s):

Titanium dioxide EC 50 (Water flea (*Daphnia magna*), 48 h): > 1,000 mg/l Intoxication

CHRONIC HAZARDS TO THE AQUATIC ENVIRONMENT:

Fish Product: No data available.

Specified substance(s):

Titanium dioxide LC 0 (*Coregonus autumnalis migratorius* G., 30 d): 3 mg/l experimental result
 Petroleum distillates NOAEL (*Oncorhynchus mykiss*, 28 d): 0.098 mg/l QSAR

Aquatic Invertebrates Product: No data available.

Toxicity to Aquatic Plants Product: No data available.

Persistence and Degradability

Biodegradation Product: No data available.

BOD/COD Ratio Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF) Product: No data available.

Partition Coefficient n-octanol

/ water (log Kow) Product: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

SECTION XIII: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: It is the responsibility of the generator to comply with all federal, state, provincial and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the US Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

SECTION XIV: TRANSPORTATION INFORMATION

DOT / CFR:

Not regulated

IMDG:

Not regulated

TDG:

Not regulated

SECTION XV: REGULATORY INFORMATION

US FEDERAL REGULATIONS**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):**Chemical Identity Reportable quantity**

Epichlorohydrin 100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance**Chemical Identity Reportable quantity**

Epichlorohydrin 100 lbs.

Threshold Planning Quantity

1000 lbs.

SARA 304 Emergency Release Notification**Chemical Identity Reportable quantity**

Epichlorohydrin 100 lbs

SARA 311/312 Hazardous Chemical**Chemical Identity Threshold Planning Quantity**

Epichlorohydrin 500lbs

Bisphenol A Polyglycidyl 500 lbs

Ether Resin

Titanium dioxide 500 lbs

Petroleum distillates 500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

SECTION XV: REGULATORY INFORMATION (CONTINUED)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Epichlorohydrin	20000 lbs

US STATE REGULATIONS**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

Chemical Identity: Epichlorohydrin

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

OTHER REGULATIONS:

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 4 g/l

Inventory Status:

Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chem Sub:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	All components in this product are listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inv of Chemicals:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL / Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

SECTION XVI: OTHER INFORMATION

VERSION #: 0

SPECIAL PRECAUTIONS: Empty containers will retain some of the product residue. When handling or disposing of them, follow all label warnings, other instructions and waste disposal procedures.

EXPLANATION AND DISCLAIMER: Wherever such words or phrases as "hazardous," "toxic," "carcinogen," appear herein, they are used as defined or described under state employee right-to-know laws, Federal OSHA laws or the direct sources for these laws such as the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), etc. The use of such words or phrases should not be taken to mean that we deem or imply any substance or exposure to be toxic, hazardous or otherwise harmful. **ANY EXPOSURE CAN ONLY BE UNDERSTOOD WITHIN THE ENTIRE CONTEXT OF ITS OCCURRENCE, WHICH INCLUDES SUCH FACTORS AS THE SUBSTANCE'S CHARACTERISTICS AS DEFINED IN THE MSDS, AMOUNT AND DURATION OF EXPOSURE, OTHER CHEMICALS PRESENT AND PREEXISTING INDIVIDUAL DIFFERENCES IN RESPONSE TO THE EXPOSURE.**

The data provided is based on the information received from our raw material suppliers and other sources believed to be reliable. **THIS DATA DOES NOT CONSTITUTE A GUARANTEE (EXPRESSED OR IMPLIED), WARRANTY (INCLUDING WARRANTY WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) OR REPRESENTATION (INCLUDING FREEDOM FROM PATENT LIABILITY) BY US WITH RESPECT TO THE DATA, THE PRODUCT DESCRIBED OR IT'S USE FOR ANY SPECIFIC PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO US. WE DISCLAIM LIABILITY FOR DAMAGE OR INJURY INCURRING DIRECTLY OR INDIRECTLY FROM THE USE OF THIS PRODUCT.**

STRUCTURAL TECHNOLOGIES, LLC urges suppliers and users of this product to evaluate its suitability and compliance with local regulations, as STRUCTURAL TECHNOLOGIES, LLC cannot foresee the nature of the final application nor final location of usage.

SAFETY DATA SHEET

SDS IDENTIFICATION NAME: V-Wrap PF Resin-B

DATE: 11/06/2015

PAGE: 1 OF 5

SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

MANUFACTURER:
STRUCTURAL TECHNOLOGIES, LLC
10150 Old Columbia Road
Columbia, MD 21046

EMERGENCY TELEPHONE NUMBER:
1-800-424-9300
INFORMATION TELEPHONE NUMBER:
1-410-859-6539

CHEMICAL FAMILY: Epoxy Adhesive

SECTION II: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR:

Black. Liquid. Mild pungent odor. May cause slight irritation to the respiratory system. Leave area to breathe fresh air. Avoid further exposure. If symptoms persist, get medical attention.

STATEMENTS OF HAZARD:

CAUSES SEVERE SKIN BURNS AND EYE DAMAGE, HARMFUL IF ABSORBED THROUGH SKIN, MAY CAUSE RESPIRATORY TRACT IRRITATION, MAY CAUSE LUNG INJURY IF SWALLOWED AND ASPIRATED, CALL POISON CENTER IF INGESTED.

PRIMARY ROUTES OF EXPOSURE:

EYES--YES

SKIN CONTACT--YES

INHALATION--YES

INGESTION--NO

PICTOGRAM:



SIGNAL WORD: DANGER!

PRECAUTIONARY STATEMENTS:

PREVENTION: Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

RESPONSE: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Rinse skin with water/shower. immediately take off all contaminated clothing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

UNKNOWN TOXICITY - HEALTH

Acute toxicity, oral	6.77 %
Acute toxicity, dermal	6.78 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	99.64 %

UNKNOWN TOXICITY - ENVIRONMENT

Acute hazards to the aquatic environment	98.64 %
Chronic hazards to the aquatic environment	100 %

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	CAS NUMBER	% BY WEIGHT
Poly(oxypropylene) diamine	9046-10-0	60 - 100%
Petroleum distillates	64742-47-8	0.1 - 1%

SECTION IV: FIRST AID MEASURES

GENERAL: Get immediate medical attention for any significant overexposure.

EYES: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

SKIN CONTACT: If skin irritation occurs, wash skin with soap and plenty of water. Immediately remove contaminated clothing and shoes, destroy or thoroughly clean contaminated articles. If skin irritation or an allergic skin reaction develops, get medical advice/attention.

INHALATION: Leave area to breath fresh air. Avoid further overexposure. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.

INGESTION: Rinse mouth with water. Do not induce vomiting unless advised by a physician. Call nearest Poisson Control Center or Physician immediately.

SECTION V: FIRE FIGHTING MEASURES

GENERAL FIRE HAZARDS: No unusual fire or explosion hazards noted.

SUITABLE EXTINGUISHING MEDIA: Use fire-extinguishing media appropriate for surrounding materials.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: During fire, gases hazardous to health may be formed.

SPECIAL FIRE FIGHTING PROCEDURES: No data available.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION VI: ACCIDENTAL RELEASE MEASURES

PROCEDURES IN CASE OF ACCIDENTAL RELEASE OF LEAKAGE: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth, or other suitable material. Transfer to appropriate container for disposal. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION VII: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing.

CONDITIONS FOR SAFE STORAGE: Store locked up. Store in sealed containers in a dry, ventilated, and above freezing warehouse location.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS: Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

GENERAL INFORMATION: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

EYE/FACE PROTECTION: Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

SKIN PROTECTION: Use suitable protective gloves if risk of skin contact. Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

RESPIRATORY PROTECTION: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

HYGIENE MEASURES: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS

Chemical Identity	Type	Exposure Limit Values	Source
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m ³	US. ACGIH Threshold Limit Values (2011)

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

PHYSICAL STATE:	liquid
FORM:	liquid
COLOR:	Black
ODOR:	Mild pungent
pH:	No data available.
MELTING POINT/FREEZING POINT:	No data available.
BOILING POINT:	No data available.
FLASH POINT:	> 200°F / 93°C (Setaflash Closed Cup)
EVAPORATION RATE:	Slower than Ether
FLAMMABILITY (solid, gas):	No
FLAMMABILITY OR EXPLOSIVE LIMITS	
FLAMMABILITY LIMIT - UPPER (%):	No data available.
FLAMMABILITY LIMIT - LOWER (%):	No data available.
EXPLOSIVE LIMIT - UPPER (%):	No data available.
EXPLOSIVE LIMIT - LOWER (%):	No data available.
VAPOR PRESSURE:	No data available.
VAPOR DENSITY:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
RELATIVE DENSITY:	1.03

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES (CONTINUED)

SOLUBILITY IN WATER: Practically Insoluble.
PARTITION COEFFICIENT(n-octanol/water): No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY: No data available.

SECTION X: STABILITY AND REACTIVITY

REACTIVITY: No data available.
CHEMICAL STABILITY: Material is stable under normal conditions.
POSSIBILITY OF HAZARDOUS REACTIONS: No data available
CONDITIONS TO AVOID: Avoid heat or contamination.
INCOMPATIBLE MATERIALS: Avoid contact with acids.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION XI: TOXICOLOGICAL INFORMATION**INFORMATION ON LIKELY ROUTES OF EXPOSURE**

Ingestion: May be harmful if swallowed.
Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact: May be harmful in contact with skin. Causes severe skin burns.
Eye contact: Causes serious eye damage.

INFORMATION ON TOXICOLOGICAL EFFECTS**Acute toxicity (list all possible routes of exposure)**

Oral Product: ATEmix: 3,435.14 mg/kg
Dermal Product: ATEmix: 3,502.85 mg/kg
Inhalation Product: No data available.

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.

Serious Eye Damage/ Irritation Product: No data available.
Specified substance(s):

Poly(oxypropylene) in vivo (Rabbit, 24 hrs): Corrosive
Petroleum distillates in vivo (Rabbit, 24 - 72 hrs): Not irritating

Respiratory or Skin Sensitization Product: No data available.

Carcinogenicity Product: Suspected of causing cancer

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

SECTION XI: TOXICOLOGICAL INFORMATION (CONTINUED)**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro Product:**

No data available.

In vivo Product:

No data available.

Reproductive Toxicity Product:

No data available.

Specific Target Organ Toxicity -**Single Exposure Product:**

No data available.

Specific Target Organ Toxicity -**Repeated Exposure Product:**

No data available.

Aspiration Hazard Product:

No data available.

SECTION XII: ECOLOGICAL INFORMATION**ECOTOXICITY:****ACUTE HAZARDS TO THE AQUATIC ENVIRONMENT:****Fish Product:**

No data available.

Specified substance(s):

Petroleum distillates

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 2.9 mg/l Mortality

Aquatic Invertebrates Product:

No data available.

Specified substance(s):

Titanium dioxide

EC 50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l Intoxication

CHRONIC HAZARDS TO THE AQUATIC ENVIRONMENT:**Fish Product:**

No data available.

Specified substance(s):

Petroleum distillates

NOAEL (Oncorhynchus mykiss, 28 d): 0.098 mg/l QSAR

Aquatic Invertebrates**Product:**

No data available.

Toxicity to Aquatic Plants**Product:**

No data available.

Persistence and Degradability**Biodegradation Product:**

No data available.

BOD/COD Ratio Product:

No data available.

Bioaccumulative Potential**Bioconcentration Factor (BCF)****Product:**

No data available.

Partition Coefficient n-octanol**/ water (log Kow) Product:**

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

SECTION XIII: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: It is the responsibility of the generator to comply with all federal, state, provincial and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the US Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

SECTION XIV: TRANSPORTATION INFORMATION

DOT / CFR / IMDG / TDG:

PROPER SHIPPING NAME	Amines, liquid corrosive, N.O.S., (Polyoxypropylene Diamene)
HAZARD CLASS	Corrosive Material, 8
IDENTIFICATION NUMBER	UN 2735
PACKING GROUP	II
LABEL REQUIRED	Corrosive

SECTION XV: REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Poly(oxypropylene) diamine	500 lbs
Petroleum distillates	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US STATE REGULATIONS

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

SECTION XV: REGULATORY INFORMATION (CONTINUED)

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by NJ Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

OTHER REGULATIONS:

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 4 g/l

Inventory Status:

Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chem Sub:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inv of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

SECTION XVI: OTHER INFORMATION

VERSION #: 0

SPECIAL PRECAUTIONS: Empty containers will retain some of the product residue. When handling or disposing of them, follow all label warnings, other instructions and waste disposal procedures.

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