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SECTION 1. IDENTIFICATION

Product identifier used on the label
: **301-14®, Part A (Base)**

Other means of identification : 301-14-0, 301-14-1, 301-14-1.5, 301-14-2, 301-14-3, 301-14-4, 301-14-5

Recommended use of the chemical and restrictions on use
: Epoxy Resin
Recommended restrictions: Professional Use only.

Chemical family : Mixture

Name, address, and telephone number of the supplier:

Warren Environmental ® and Coatings LLC
37 Pine Street
Middleboro, MA, USA
02346
Supplier's Telephone # : (508) 947 8539

Name, address, and telephone number of the manufacturer:
Refer to supplier

24 Hr. Emergency Tel # : VelocityEHS: (800) 255-3924 (Within Continental U.S.); VelocityEHS: +1 (813) 248-0585 (Outside U.S., please call collect).

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Most important hazards Causes skin and eye irritation. May cause an allergic skin reaction. Occupational exposure to the substance or mixture may cause adverse effects. Toxic to aquatic life with long lasting effects.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Hazard classification:
Skin irritation - Category 2
Eye damage/irritation - Category 2
Skin sensitization - Category 1

Label elements

Hazard pictogram(s)

Signal Word

WARNING!

Hazard statement(s)

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.

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Precautionary statement(s)

Avoid breathing mist or vapor.
Wash hands and face thoroughly afterhandling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves and eye/face protection.

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
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.

Dispose of contents/container in accordance with local regulation.

Other hazards

Other hazards which do not result in classification:
Toxic fumes may be released during a fire. May polymerize when heated or on contact with incompatible materials. Mild respiratory irritant. May cause gastrointestinal irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS #	Concentration (% by weight)
Epoxy resin	Epoxy Phenol Resin	Proprietary	**Proprietary**
Titanium dioxide	Anatase Titanic acid anhydride	13463-67-7	**Proprietary**
Air release	Not available.	Proprietary	**Proprietary**

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion **:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms develop, seek medical attention.

Inhalation **:** If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. If irritation or symptoms develop, seek medical attention.

Skin contact **:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Eye contact **:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Flush eyes with water for at least 15 minutes. If eye irritation persists: get medical advice/attention.

Most important symptoms and effects, both acute and delayed

: Causes skin irritation. Contact may cause redness, swelling and a painful sensation. Causes serious eye damage. Symptoms may include redness, pain, tearing and conjunctivitis. Permanent eye damage including blindness could result.
May cause severe skin sensitization with allergic contact dermatitis symptoms such as swelling, rash and eczema.
Mild respiratory irritant. May cause coughing and breathing difficulties.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

: Immediate medical attention is required. Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

SAFETY DATA SHEET

Suitable extinguishing media

: Carbon dioxide (CO2); Dry chemical; Alcohol resistant foam.

Unsuitable extinguishing media

: Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

: Not considered flammable. May polymerize when heated or on contact with incompatible materials. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flammability classification (OSHA 29 CFR 1910.106)

: Not classified as flammable.

Hazardous combustion products

: Carbon oxides; Phenols; Aldehydes; Acids; Other unidentified organic compounds.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

: Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions **:** Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Pick up and transfer to properly labeled containers. Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.

Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
In Canada: Contact appropriate local and provincial environmental authorities for assistance and/or reporting requirements.
US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

: Persons with recurrent skin eczema or sensitization problems should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted.
Provide adequate ventilation. Wear protective equipment during handling. Wear protective gloves and eye/face protection. Avoid breathing mist or vapor. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Keep away from extreme heat and direct flame. Keep away from incompatibles. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

Conditions for safe storage **:** Store in cool/well-ventilated place. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

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Incompatible materials : Oxidizing agents; Acids; Bases; Amines

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Epoxy resin	N/Av	N/Av	N/Av	N/Av
Titanium dioxide	10 mg/m³	N/Av	15 mg/m³ (total dust)	N/Av
Air release	200 mg/m³ (as total hydrocarbon vapour)	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures
: Provide adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection : If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.

Skin protection : Wear protective gloves. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye / face protection : Wear eye/face protection. Chemical splash goggles are recommended. A full face shield may also be necessary.

Other protective equipment : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations
: Avoid breathing mist or vapor. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Contaminated work clothing must not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : **Off White** Liquid
Odour : Odorless
Odour threshold : Not available.
pH : Not available.
Melting Point/Freezing point : Not available.
Initial boiling point and boiling range
: Not available.
Flash point : >325F
Flashpoint (Method) : Not available.
Evaporation rate (BuAe = 1) : <1
Flammability (solid, gas) : Not applicable.
Lower flammable limit (% by vol.)
: Not available.
Upper flammable limit (% by vol.)
: Not available.
Oxidizing properties : None known.

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Explosive properties : Not explosive
Vapour pressure : <1 (mm Hg @ 25C)
Vapour density : >1%
Relative density / Specific gravity
: 1.19 @ 25C
Solubility in water : Not Soluble
Other solubility(ies) : Not available.
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution
: Not available.
Auto-ignition temperature : Not applicable.
Decomposition temperature : Not available.
Viscosity : Not available.
Volatiles (% by weight) : <1%
Volatile organic Compounds (VOC's)
: Not available.
Absolute pressure of container
: Not applicable.
Flame projection length : Not applicable.
Other physical/chemical comments
: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions
: May polymerize when heated or on contact with incompatible materials.
Conditions to avoid : Direct sources of heat. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.
Incompatible materials : Oxidizing agents; Acids; Bases; Amines
Hazardous decomposition products
: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : YES
Routes of exposure skin absorption
: YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation
: Mild respiratory irritant. Symptoms may include coughing and sneezing.

Sign and symptoms ingestion
: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin : Causes skin irritation. Contact may cause redness, swelling and a painful sensation. May be absorbed through the skin. Bonds skin instantly.

Sign and symptoms eyes : Causes serious eye damage. Symptoms may include redness, pain, tearing and conjunctivitis. Permanent eye damage including blindness could result.

Potential Chronic Health Effects
: Chronic skin contact with low concentrations may cause dermatitis.

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Mutagenicity : No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic .

Carcinogenicity : Not classifiable as a human carcinogen, based on currently available data. Contains Titanium dioxide. Titanium dioxide is classified as possibly carcinogenic by IARC (Group 2B). However, the Titanium dioxide used in this product is in a non-respirable form and under normal conditions of use, Titanium dioxide cannot become airbourne. The carcinogenic effects of Titanium dioxide are therefore not applicable to this product.

Reproductive effects & Teratogenicity

: This product is not expected to cause reproductive or developmental effects.

Sensitization to material : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:
Skin sensitization - Category 1. May cause an allergic skin reaction. May cause severe skin sensitization with allergic contact dermatitis symptoms such as swelling, rash and eczema. Contains: Epoxy resin.

Not expected to be a respiratory sensitizer.

Specific target organ effects : The substance or mixture is not classified as specific target organ toxicant, single exposure.

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye, respiratory and central nervous system disorders.

Synergistic materials : No information available.

Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Chemical name	LC_{50}(4hr) inh, rat	LD_{50} (Oral, rat)	LD_{50} (Rabbit, dermal)
Epoxy resin	N/Av	> 2000 mg/kg	> 2000 mg/kg
Titanium dioxide	> 6.82 mg/kg (dust) (No mortality)	> 25 000 mg/kg	> 10 000 mg/kg
Air release	>6.03 mg/L (aerosol)	>5000 mg/kg	>2000 mg/kg

Other important toxicological hazards

: None reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Toxic to aquatic life with long lasting effects. No data is available on the product itself. The product contains the following substances which are hazardous for the environment: Epoxy resin.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Epoxy resin	Proprietary	1.5 mg/L	N/Av	None.
Titanium dioxide	13463-67-7	> 100 mg/L (Japanese ricefish)	N/Av	None.
Air release	Proprietary	45 mg/L (Fathead minnow)	N/Av	None.

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Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Epoxy resin	Proprietary	1.7 mg/L (Daphnia magna)	0.3 mg/L	None.
Titanium dioxide	13463-67-7	> 100 mg/L (Daphnia magna)	N/Av	None.
Air release	Proprietary	N/Av	N/Av	N/Av

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Epoxy resin	Proprietary	9.4 mg/L/72hr (Green algae)	N/Av	None.
Titanium dioxide	13463-67-7	> 100 mg/L/72hr (Green algae)	N/Av	None.
Air release	Proprietary	N/Av	N/Av	N/Av

Persistence and degradability

: No data is available on the product itself.
Contains the following chemicals which are not readily biodegradable:
Epoxy resin.

Bioaccumulation potential **:** No data is available on the product itself. See the following data for ingredient information.

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Epoxy resin	3.242	31
Air release	5.1-8.8	N/Av

Mobility in soil **:** The product itself has not been tested.

Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal **:** Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Methods of Disposal **:** Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA **:** If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

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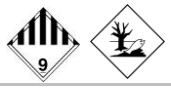
SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None.	Not regulated.	not regulated	none	
49CFR/DOT Additional information	Not regulated for transport by ground, unless intended for marine transport.				
TDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)	9	III	
TDG Additional information	This material may be shipped as an exempted marine pollutant in accordance with TDG Section 1.45.1 and Special Provision 99.				
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)	9	III	
IMDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceedin 30 kg gross mass. The environmentally hazardous substance mark must appear on packagings holding more than 5 litres of the material.				
ICAO/IATA	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)	9	III	
ICAO/IATA Additional information	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				

Special precautions for user : Appropriate advice on safety must accompany the package.

Environmental hazards **:** This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Epoxy resin	Proprietary	Yes	None.	None.	No	N/Ap
Titanium dioxide	13463-67-7	Yes	None.	None.	No	N/Ap
Air release	Proprietary	Yes	N/Ap	N/Av	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Skin irritation; Eye Damage; Skin sensitization . Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

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US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Epoxy resin	Proprietary	No	N/Ap	No	No	No	No	No	No
Titanium dioxide	13463-67-7	Yes	Cancer (airborne, unbound particles of respirable size)	No	Yes	Yes	Yes	Yes	Yes
Air release	Proprietary	No	N/Ap	No	No	No	No	No	No

Canadian Information:
Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Epoxy resin	Proprietary	Polymer	Present	Present	Present	Present	Present	May be used as a single component chemical under an appropriate group standard.
Titanium dioxide	13463-67-7	236-675-5	Present	Present	Present	Present	Present	May be used as a single component chemical under an appropriate group standard.
Air release	Proprietary	Present	Present	Present	Present	Present	Present	No information available.

SECTION 16. OTHER INFORMATION

Legend **:** ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
ATE: Acute Toxicity Estimate
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
ECHA: European Chemicals Agency
ECOTOX: U.S. EPA Ecotoxicology Database
EINECS: European Inventory of Existing Commercial chemical Substances
ENCS: Existing and New Chemical Substances
EPA: Environmental Protection Agency
HSDB: Hazardous Substances Data Bank

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IARC: International Agency for Research on Cancer
IBC: Intermediate Bulk Container
IECSC: Inventory of Existing Chemical Substances
IMDG: International Maritime Dangerous Goods
IOC: Inventory of Chemicals
IUCLID: International Uniform Chemical Information Database
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet / Material Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for
2. ECHA - European Chemical Agency
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, (Chempendium, HSDB and RTECs).
4. Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists
6. California Proposition 65 List
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

Preparation Date (mm/dd/yyyy) : 07/20/2020

Other special considerations for handling : Provide adequate information, instruction and training for operators.

Prepared for: Warren Environmental and Coatings LLC 137 Pine Street Middleboro, MA 02346 Telephone: 508-947-8539	WARREN ENVIRONMENTAL
Prepared by: ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada) http://www.thecompliancecenter.com	icc ComplianceCenter

SAFETY DATA SHEET

DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Warren Environmental and Coatings LLC and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Warren Environmental and Coatings LLC expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Warren Environmental and Coatings LLC

END OF DOCUMENT

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **301-14®, Part B (Activator)**

Other means of identification : 301-14-0, 301-14-1, 301-14-1.5, 301-14.2

Recommended use of the chemical and restrictions on use

: Epoxy activator
Restriction on use: None known

Chemical family : Mixture

Name, address, and telephone number of the supplier:

Warren Environmental® and Coatings LLC

137 Pine Street
Middleboro, MA, USA
02346

Supplier's Telephone # : (508) 947 8539

Name, address, and telephone number of the manufacturer:

Refer to supplier

24 Hr. Emergency Tel # : VELOCITYEHS: (800) 255-3924 (In Continental U.S.); VELOCITYEHS: +1 (813) 248-0585 (Outside U.S., please call collect).

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Amber liquid. Amine odour.

Most important hazards: Causes skin and eye burns. May cause respiratory irritation. May cause an allergic skin reaction. Occupational exposure to the substance or mixture may cause adverse effects. Toxic to aquatic life with long lasting effects. Avoid release to the environment.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification :

Skin corrosion/irritation -Category 1B
Serious eye damage/eye irritation - Category 1
Skin sensitization - Category 1A
Reproductive toxicity - Category 2
Specific target organ toxicity, single exposure - Category 3 (Respiratory irritation)
Specific target organ toxicity, repeated exposure - Category 2)

Label elements

Hazard pictogram(s)

Signal Word

DANGER!

Hazard statement(s)

Causes severe skin burns and eye damage.
May cause allergic skin reaction.
May cause respiratory irritation.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

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Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Do not breathe dust or mist.
Contaminated work clothing should not be allowed out of the workplace.
Wash thoroughly after handling.
Wear protective gloves/clothing and eye/face protection.

IF exposed or concerned: Get medical attention/advice.
Immediately call a POISON CENTRE or doctor/physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
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 SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Store locked up.
Store in well-ventilated place.
Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Other hazards which do not result in classification: Burning produces obnoxious and toxic fumes. Ingestion can cause gastrointestinal irritation, nausea, and diarrhea. Prolonged inhalation may cause adverse lung effects with symptoms including coughing, mucous production and difficulty breathing.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS #	Concentration (% by weight)
m-Xylene alpha, alpha'-diamine	Not available	1477-55-0	**5.0 - 10.0**
Trimethylhexane-1,6-diamine	Not available	25620-58-0	**5.0 - 10.0**
Benzyl alcohol	Not available	100-51-6	**3.0 - 7.0**
Formaldehyde, polymer with benzenamine, hydrogenated	Not available	135108-88-2	**3.0 - 7.0**
Bisphenol A	Not available	80-05-7	**3.0 - 7.0**
Branched nonylphenol (mixed isomers)	Not available	84852-15-3	**1.0 - 5.0**
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	Not available	68479-04-9	**1.0 - 5.0**
4-Nonylphenol, branched	Not available	84852-15-3	**1.0 - 5.0**
4-tert-Butylphenol	Not available	98-54-4	**0.1 - 1.0**
4,4'-Methylenebis(cyclohexylamine)	Not available	1761-71-3	**0.1 - 1.0**
Distillates (petroleum), hydrotreated light	Not available	64742-47-8	**0.1 - 1.0**
Tetraethylenepentamine	Not available	112-57-2	**0.1 - 1.0**

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion : Immediately call a POISON CENTRE or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

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Inhalation : Immediately call a POISON CENTRE or doctor/physician. If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration.If breathing is difficult, give oxygen by qualified medical personnel only.

Skin contact : Immediately call a POISON CENTRE or doctor/physician.IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact : Immediately call a POISON CENTRE or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Most important symptoms and effects, both acute and delayed

: Corrosive to all tissues. Causes severe skin burns and eye damage. Direct skin contact may cause corrosive skin burns, deep ulcerations and possibly permanent scarring. May cause an allergic skin reaction (e.g. swelling, rash and eczema). Allergic symptoms may develop within 12 hours after exposure. May cause respiratory irritation. If mists are formed, may cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, chest pain and shortness of breath. Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract. Symptoms include: Gastrointestinal discomfort, nausea, vomiting, cramping and diarrhea. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

: Immediate medical attention is required. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

: Carbon dioxide, dry chemical or alcohol foam.

Unsuitable extinguishing media

: Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

: Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flammability classification (OSHA 29 CFR 1910.106)

: Not flammable.

Hazardous combustion products

: Carbon oxides, Nitrogen oxides, hydrogen cyanide, Ammonia, Amines, Aldehydes, Ketones, and other irritating fumes and smoke.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear an approved full-face, self-contained breathing apparatus (SCBA) and impervious clothing.

Special fire-fighting procedures

: Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

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: Ventilate the area. Remove all sources of ignition. Stop the spill at source if it is safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand). Pick up and transfer to properly labeled containers. Refer to Section 13 for disposal of contaminated material. Contact the proper local authorities.

Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Wear protective gloves/clothing and eye/face protection. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Do not breathe dust or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Wash thoroughly after handling. Keep containers tightly closed when not in use. Keep away from extreme heat and flame. Take precautions to prevent premature mixing of components and subsequent premature curing.

Conditions for safe storage : Store locked up. Keep container tightly closed. Store in a well-ventilated place. Store away from incompatible materials. Inspect periodically for damage or leaks. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. No smoking in the area.

Incompatible materials : Acids, strong oxidizing agents, bases.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
m-Xylene alpha, alpha'-diamine	0.1 mg/m³ (Ceiling)	N/Av	0.1 mg/m³ (Ceiling) (final rule limit)	N/Av
Trimethylhexane-1,6-diamine	N/Av	N/Av	N/Av	N/Av
Benzyl alcohol	10 ppm (AIHA WEEL)	N/Av	N/Av	N/Av
Formaldehyde, polymer with benzenamine, hydrogenated	N/Av	N/Av	N/Av	N/Av
Bisphenol A	N/Av	N/Av	N/Av	N/Av
Branched nonylphenol (mixed isomers)	N/Av	N/Av	N/Av	N/Av
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	N/Av	N/Av	N/Av	N/Av
4-Nonylphenol, branched	N/Av	N/Av	N/Av	N/Av
4-tert-Butylphenol	N/Av	N/Av	N/Av	N/Av
4,4'-Methylenebis(cyclohexylamine)	N/Av	N/Av	N/Av	N/Av
Distillates (petroleum), hydrotreated light	200 mg/m³ (as total hydrocarbon vapour)	N/Av	N/Av	N/Av
Tetraethylenepentamine	5 mg/m³ (skin) (AIHA WEEL)	N/Av	N/Av	N/Av

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Exposure controls

Ventilation and engineering measures
: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment. If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. NIOSH-approved, organic vapour cartridge respirators are recommended. Advice should be sought from respiratory protection specialists.

Skin protection : Wear protective gloves/clothing. Gloves impervious to the material are recommended. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye / face protection : Wear eye/face protection. Chemical splash goggles are recommended. A full face shield may also be necessary.

Other protective equipment : An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

General hygiene considerations
: Do not eat, drink, smoke or use cosmetics while working with this product. Do not breathe dust or mist. Avoid contact with eyes, skin and clothing. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.
Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove and wash contaminated clothing before re-use. Contaminated work clothing must not be allowed out of the workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Amber liquid.
Odour : Amine odour.
Odour threshold : N/Av
pH : Not available.
Melting Point/Freezing point : N/Av
Initial boiling point and boiling range
: 222°C
Flash point : 107.22°C
Flashpoint (Method) : Not applicable.
Evaporation rate (BuAe = 1) : N/Av
Flammability (solid, gas) : N/Ap
Lower flammable limit (% by vol.)
: N/Av
Upper flammable limit (% by vol.)
: N/Av
Oxidizing properties : None.
Explosive properties : Not explosive
Vapour pressure : <1 mmHg
Vapour density : >1
Relative density / Specific gravity
: 1.05
Solubility in water : Partially soluble.
Other solubility(ies) : N/Av
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution
: N/Av
Auto-ignition temperature : Not available.
Decomposition temperature : N/Av
Viscosity : viscous

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Volatiles (% by weight) : <1%
Volatile organic Compounds (VOC's)
: N/Av
Absolute pressure of container
: N/Ap
Flame projection length : N/Ap
Other physical/chemical comments
: None reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.
Chemical stability : Stable under the recommended storage and handling conditions prescribed.
Possibility of hazardous reactions
: Hazardous polymerization does not occur.
Conditions to avoid : Avoid heat and open flame. Avoid contact with incompatible materials. Ensure adequate ventilation, especially in confined areas.
Incompatible materials : Acids, strong oxidizing agents, bases.
Hazardous decomposition products
: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : YES
Routes of exposure skin absorption
: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation
: May cause respiratory irritation. If mists are formed, may cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, chest pain and shortness of breath.

Sign and symptoms ingestion
: Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract. Symptoms include: Gastrointestinal discomfort, nausea, vomiting, cramping and diarrhea.

Sign and symptoms skin : Corrosive to skin. Causes severe skin burns. Direct skin contact may cause corrosive skin burns, deep ulcerations and possibly permanent scarring.

Sign and symptoms eyes : Corrosive to eyes. Causes serious eye damage. Direct eye contact may produce severe irritation with possible eye damage.

Potential Chronic Health Effects
: Prolonged inhalation may cause adverse lung effects with symptoms including coughing, mucous production and difficulty breathing. Prolonged or repeated overexposure may cause kidney effects.
Mutagenicity : Not expected to be mutagenic in humans.
Carcinogenicity : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects & Teratogenicity
: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Reproductive toxicity - Category 2 Suspected of damaging fertility or the unborn child.

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Sensitization to material : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).
Classification:
Skin sensitization - Category 1A - May cause allergic skin reaction.

Specific target organ effects : Eyes, skin, respiratory system and digestive system.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:
Specific target organ toxicity, single exposure - Category 3 .May cause respiratory irritation.
Specific Target Organ Toxicity, Repeated Exposure - Category 2.May cause damage to organs through prolonged or repeated exposure. (Kidneys)

Medical conditions aggravated by overexposure
: Pre-existing skin, eye and respiratory disorders.

Synergistic materials : Not available.

Toxicological data : There is no data available for this product. The calculated ATE values for this mixture are:
ATE dermal =6830.51 mg/kg
ATE oral = 2411.24 mg/kg
ATE inhalation (mists) = 9.58 mg/kg

Chemical name	LC_{50}(4hr) inh, rat	LD_{50} (Oral, rat)	LD_{50} (Rabbit, dermal)
m-Xylene alpha, alpha'-diamine	800 mg/m³	930 mg/kg	>3100 mg/kg
Trimethylhexane-1,6-diamine	N/Av	910 mg/kg	N/Av
Benzyl alcohol	> 4.178 mg/L (mist) (No mortality)	1230 mg/kg	2000 mg/kg
Formaldehyde, polymer with benzenamine, hydrogenated	N/Av	368mg/kg	> 1000 mg/kg (No mortality)
Bisphenol A	> 0.255 mg/L (dust) (No mortality)	3300 mg/kg	3600 mg/kg
Branched nonylphenol (mixed isomers)	N/Av	1246 mg/kg	2040 mg/kg
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	N/Av	518 mg/kg	N/Av
4-Nonylphenol, branched	N/Av	1246 mg/kg	2040 mg/kg
4-tert-Butylphenol	> 5.6 mg/L (dust)	4000 mg/kg	> 16 000 mg/kg
4,4'-Methylenebis(cyclohexylamine)	N/Av	350 mg/kg	2110 mg/kg
Distillates (petroleum), hydrotreated light	>6.03 mg/L (aerosol)	>5000 mg/kg	>2000 mg/kg
Tetraethylenepentamine	N/Av	3250 mg/kg	660 - 1260 mg/kg

Other important toxicological hazards
: None reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Very toxic to aquatic life with long lasting effects. Do not allow this material to drain into sewers/water supplies. See data for individual ingredient ecotoxicity data.

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Ecotoxicity data:

Ingredients	CAS #	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
m-Xylene alpha, alpha'-diamine	1477-55-0	75mg/L (Golden orfe)	N/Av	None.
Benzyl alcohol	100-51-6	460 mg/L (Fathead minnow)	N/Av	None.
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	63mg/L (Guppy)	N/Av	None.
Bisphenol A	80-05-7	4.6 mg/L (Fathead minnow)	N/Av	None.
Branched nonylphenol (mixed isomers)	84852-15-3	0.128 mg/L (Fathead minnow)	0.038 mg/L/28-day (Fathead minnow)	1
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	0.16 mg/L (Fathead minnow)	N/Av	1
4-Nonylphenol, branched	84852-15-3	0.128 mg/L (Fathead minnow)	0.038 mg/L/28-day (Fathead minnow)	1
4-tert-Butylphenol	98-54-4	5.1 mg/L (Japanese ricefish)	N/Av	None.
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	67.8 mg/L (unbuffered); > 100 mg/L (buffered) (Golden orfe)	> 1 mg/L (calculated)	None.
Distillates (petroleum), hydrotreated light	64742-47-8	45 mg/L (Fathead minnow)	N/Av	None.
Tetraethylenepentamine	112-57-2	310 mg/L (Fathead minnow)	N/Av	None.

Ingredients	CAS #	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
m-Xylene alpha, alpha'-diamine	1477-55-0	15.2 mg/L (Daphnia magna)	6.77 mg/L (Daphnia magna)	None.
Benzyl alcohol	100-51-6	360 mg/L (Daphnia magna)	51 mg/L	None.
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	15.4mg/L Water flea	N/Av	None.
Bisphenol A	80-05-7	10.2 mg/L (Daphnia magna)	> 3.146 mg/L	None.
Branched nonylphenol (mixed isomers)	84852-15-3	0.0844 mg/L (Daphnia magna)	0.024 mg/L (Daphnia magna)	10
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	0.132 mg/L (Daphnia magna)	0.058 mg/L	1
4-Nonylphenol, branched	84852-15-3	0.0844 mg/L (Daphnia magna)	0.024 mg/L (Daphnia magna)	10
4-tert-Butylphenol	98-54-4	3.4 mg/L (Daphnia magna)	0.73 mg/L	None.
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	6.84 mg/L (unbuffered); 7.07 mg/L (buffered) (Daphnia magna)	4 mg/L (Read-across)	None.
Distillates (petroleum), hydrotreated light	64742-47-8	N/Av	N/Av	N/Av
Tetraethylenepentamine	112-57-2	14.6 mg/L (Daphnia magna)	N/Av	None.

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Ingredients	CAS #	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
m-Xylene alpha, alpha'-diamine	1477-55-0	12mg/L (Green algae)	6.25mg/L (Green algae)	None.
Trimethylhexane-1,6-diamine	25620-58-0	72 Hr EC50 Desmodesmus subspicatus: 29.5 mg/L	N/Av	
Benzyl alcohol	100-51-6	500 mg/L/72hr (Green algae)	310 mg/L/72hr (Green algae)	None.
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	43.94mg/L (Green algae)	N/Av	None.
Bisphenol A	80-05-7	2.73 - 3.1 mg/L/96hr (Green algae)	N/Av	None.
Branched nonylphenol (mixed isomers)	84852-15-3	0.0563 mg/L/72hr (Green algae); 0.027 mg/L/72hr (Diatom)	0.0033 mg/L/72hr (Green algae)	10
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	0.42 mg/L/96hr (Green algae)	N/Av	1
4-Nonylphenol, branched	84852-15-3	0.0563 mg/L/72hr (Green algae); 0.027 mg/L/72hr (Diatom)	0.0033 mg/L/72hr (Green algae)	10
4-tert-Butylphenol	98-54-4	14 mg/L/72hr (Green algae)	0.32 mg/L/72hr	None.
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	140 - 200 mg/L/72hr (unbuffered); 2164 mg/L/72hr (unbuffered) (Green algae)	N/Av	None.
Distillates (petroleum), hydrotreated light	64742-47-8	N/Av	N/Av	N/Av
Tetraethylenepentamine	112-57-2	2.1 - 6.8 mg/L/72hr (Green algae)	N/Av	None.

Persistence and degradability : No data is available on the product itself.

Bioaccumulation potential : No data is available on the product itself.

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Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Benzyl alcohol (CAS 100-51-6)	1.1	0.31
Formaldehyde, polymer with benzenamine, hydrogenated (CAS 135108-88-2)	2.68	219
Bisphenol A (CAS 80-05-7)	3.4	5.1 - 13.3
Branched nonylphenol (mixed isomers) (CAS 84852-15-3)	5.4	1300 (Fish)
4,4'-Methylenebis(cyclohexylamine) (CAS 1761-71-3)	2.03	N/Av
4-tert-Butylphenol (CAS 98-54-4)	3.29	34 - 240
m-Xylene alpha, alpha'-diamine (CAS 1477-55-0)	N/Av	2.7
4-Nonylphenol, branched (CAS 84852-15-3)	5.4	1300 (Fish)
Trimethylhexane-1,6-diamine (CAS 25620-58-0)	0.77 at 23 °C	
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched (CAS 68479-04-9)	5.37	
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	5.1-8.8	N/Av
Tetraethylenepentamine (CAS 112-57-2)	- 3.16	4.2 (estimated)

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: The ecological characteristics of this product have not been fully investigated. No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle in accordance with good industrial hygiene and safety practice. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

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SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylene alpha, alpha'-diamine)	8	III	
TDG Additional information	May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.				
49CFR/DOT	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylene alpha, alpha'-diamine)	8	III	
49CFR/DOT Additional information	May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.				
ICAO/IATA	UN2735	Amines, liquid, corrosive, n.o.s. (m-Xylene alpha, alpha'-diamine)	8	III	
ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction				
IMDG	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylene alpha, alpha'-diamine)	8	III	
IMDG Additional information	Consult the IMDG regulations for exceptions.				

Special precautions for user : Appropriate advice on safety must accompany the package.

Environmental hazards : This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

SAFETY DATA SHEET

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
m-Xylene alpha, alpha'-diamine	1477-55-0	Yes	N/Ap	N/Av	No	N/Ap
Trimethylhexane-1,6-dia mine	25620-58-0	Yes	N/Ap	N/Av	No	N/Ap
Benzyl alcohol	100-51-6	Yes	None.	None.	No	N/Ap
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	Yes	None.	None.	No	N/Ap
Bisphenol A	80-05-7	Yes	None.	None.	Yes	1%
Branched nonylphenol (mixed isomers)	84852-15-3	Yes	None.	None.	No	N/Ap
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	Yes	None.	None.	No	N/Ap
4-Nonylphenol, branched	84852-15-3	Yes	None.	None.	No	N/Ap
4-tert-Butylphenol	98-54-4	Yes	None.	None.	No	N/Ap
4,4'-Methylenebis(cycloh exylamine)	1761-71-3	Yes	None.	None.	No	N/Ap
Distillates (petroleum), hydrotreated light	64742-47-8	Yes	N/Ap	N/Av	No	N/Ap
Tetraethylenepentamine	112-57-2	Yes	None.	None.	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:Eye Damage ;Specific target organ toxicity, single exposure;Skin corrosion; Reproductive toxicity ; Skin sensitization; Specific target organ toxicity, repeated exposure .Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

SAFETY DATA SHEET

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
m-Xylene alpha, alpha'-diamine	1477-55-0	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Trimethylhexane-1,6-diamine	25620-58-0	No	N/Ap	No	No	No	Yes	No	No
Benzyl alcohol	100-51-6	No	N/Ap	No	Yes	Yes	No	Yes	No
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	No	N/Ap	No	No	No	No	No	No
Bisphenol A	80-05-7	No	female	No	Yes	No	Yes	Yes	No
Branched nonylphenol (mixed isomers)	84852-15-3	No	N/Ap	No	No	Yes	No	No	No
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	No	N/Ap	No	No	No	No	No	No
4-Nonylphenol, branched	84852-15-3	No	N/Ap	No	No	Yes	No	No	No
4-tert-Butylphenol	98-54-4	No	N/Ap	No	No	No	No	No	No
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	No	N/Ap	No	No	No	No	No	No
Distillates (petroleum), hydrotreated light	64742-47-8	No	N/Ap	No	No	No	No	No	No
Tetraethylenepentamine	112-57-2	No	N/Ap	No	Yes	No	Yes	Yes	No

Canadian Information:
All ingredients are present on the DSL.
WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

International Information:

Components listed below are present on the following International Inventory list:

SAFETY DATA SHEET

Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
m-Xylene alpha, alpha'-diamine	1477-55-0	216-032-5	Present	Present	(3)-308; (3)-2888	KE-02918	Present	N/Av
Trimethylhexane-1,6-diamine	25620-58-0	247-134-8	Present	Present	(2)-154	KE-34545	Present	Present
Benzyl alcohol	100-51-6	202-859-9	Present	Present	(3)-1011	KE-02570	Present	HSR001039
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	Polymer	Present	Present	Not listed	KE-17094	Present	May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.
Bisphenol A	80-05-7	201-245-8	Present	Present	(4)-123	KE-23982	Present	HSR003399
Branched nonylphenol (mixed isomers)	84852-15-3	284-325-5	Present	Present	(3)-503	KE-03584; 2001-1-515	Present	HSR003846
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	270-851-2	Present	Present	Not listed	KE-03592	Present	May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.
4-Nonylphenol, branched	84852-15-3	284-325-5	Present	Present	(3)-503	KE-03584; 2001-1-515	Present	HSR003846
4-tert-Butylphenol	98-54-4	202-679-0	Present	Present	(4)-57; (3)-503	KE-11399	Present	HSR003913
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	217-168-8	Present	Present	(4)-101; (3)-2272	KE-23815	Present	HSR003552
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8	Present	Present	(9)-1700	KE-12550	Present	No information available.
Tetraethylenepentamine	112-57-2	203-986-2	Present	Present	(2)-162	KE-01347	Present	HSR003219

SECTION 16. OTHER INFORMATION

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
AIHA: American Industrial Hygiene Association
CA: California
CAS: Chemical Abstract Services
CEPA: Canadian Environmental Protection Act
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
ENCS: Existing and New Chemical Substances
EPA: Environmental Protection Agency
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
IOC: Inventory of Chemicals
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
MA: Massachusetts
MN: Minnesota

SAFETY DATA SHEET

MSHA: Mine Safety and Health Administration
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NPRI: National Pollutant Release Inventory
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WEEL: Workplace Environmental Exposure Level
WHMIS: Workplace Hazardous Materials Identification System

References : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for
2. ECHA - European Chemical Agency
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, (Chempendium, HSDB and RTECs).
4. Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists
6. California Proposition 65 List
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

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Other special considerations for handling : Provide adequate information, instruction and training for operators.

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