

# SAFETY DATA SHEET

Canusa Liquid Epoxy Type E-WF - Cure

## Section 1. Identification

**Product identifier** : Canusa Liquid Epoxy Type E-WF - Cure  
**Product code** : Not available.  
**Other means of identification** : Not available.

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses	
Industrial application of coatings and inks by other than spraying	
Uses advised against	Reason
Consumer	Product is not intended for consumer use.

**Supplier's details** : SFL Canusa Canada Ltd., 455 West Airport Road, Huntsville, ON, P1H 1Y7, Canada, Tel.: (+1) 705-789-1787  
Seal For Life India Private Ltd., Plot17, GIDC Savli, Vadodara, Gujarat, Baroda, India - 391775, Tel.: +91 266 726 4721  
SFL Canusa Middle East Pipeline Products Trading and Services LLC, Address: Plot # 37-WR43, Sector no.: ICAD III, Musaffah South, Abu Dhabi, United Arab Emirates, Tel: +971 2 204 9800  
Seal For Life Industries, 10010 Cypress Creek Parkway Houston, TX 77070, USA, Tel.: +1 713-999-5090

**Distributor / Importer** :

**Emergency telephone number (with hours of operation)** : +1 705-789-1787 (CA: 8:00 - 17:00)  
+91 266 726 4721 (IN: 08:00 - 17:00)  
+971 2 204 9800 (UAE: 08:00 - 17:00)  
+1 713-999-5090 (US: 8:00-17:00)

For emergencies only, call CHEMTREC (24 hours): In USA / Canada 1-800-424-9300; Outside USA +1 703-741-5970

## Section 2. Hazard identification

**Classification of the substance or mixture** : ACUTE TOXICITY (dermal) - Category 4  
SKIN CORROSION - Category 1  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITIZATION - Category 1

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Harmful in contact with skin.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.

### Precautionary statements

**Prevention** : Wear protective gloves: 1 - 4 hours (breakthrough time): butyl rubber nitrile rubber.  
Wear protective clothing: Recommended: lab coat. Wear eye or face protection: Recommended: safety glasses with side-shields. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

## Section 2. Hazard identification

<b>Response</b>	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 4.6%

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

Ingredient name	Synonyms	% (w/w)	CAS number
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	Fatty acids, C18-unsaturated, dimers, reaction products with polyethylenepolyamines; Polyethylenepolyamine, dimer fatty acid condensate; DimerFA_PEPA PAA; Dimer acid (C 36)-Poly (1-7) alkylene (C 1-4) polyamide; Unsatd. (C=18) fatty acids dimers reaction products with polyethylenepolyamines; FATTY ACIDS, POLYETHYLENE POLYAMINE BASED POLYAMIDE; FATTY ACIDS, C18-UNSATURATED DIMERS, REACTION PRODUCTS WITH POLYETHYLENE POLYAMINES; FATTY ACIDS,C18-UNSAT, DIMERS,RXN PRDTS W/ P'ETHYLENE AMINES; FATTY ACIDS, C18-UNSATD., DIMERS	≥30 - ≤60	68410-23-1
Cashew, nutshell liq.	Cashew, nutshell liquid; Oils, cashew nutshell; Oil of cashew nut shell; Cashew nutshell oil; Cashew (Anacardium occidentale), nutshell liq.; Anacardium occidentale, nutshell liq; Cashew nurshell oil; Decarboxylating cashew nut shell liquid; Cashew nut shell liquid; Distilled Cashewnut Shell Liquid	≥10 - ≤30	8007-24-7
Triethylenetetramine	triethylenetetramine; trientine; 1,2-Ethanediamine, N1,N2-bis (2-aminoethyl)-; 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-; N,N'-Bis (2-aminoethyl)-1,2-ethanediamine; 3,6-diazaoctamethylenediamine; N, N'-bis(2-aminoethyl)ethane-	≥10 - ≤30	112-24-3

### Section 3. Composition/information on ingredients

	1,2-diamine; N1,N2-bis (2-Aminoethyl)-1,2-ethanediamine; 1,4,7,10-Tetraazadecane; 3,6-Diazaoctane-1,8-diamine; N,N'- Bis(2-aminoethyl)ethylenediamine		
2,4,6-tris(dimethylaminomethyl) phenol	Phenol, 2,4,6-tris[(dimethylamino) methyl]-; Phenol, 2,4,6-tris (dimethylaminomethyl)-; 2,4,6-tris( (dimethylamino)methyl)phenol; Phenol, 2,4,6-tris{(dimethylamino) methyl}-; 2,4,6-Tris[(dimethylamino) methyl]phenol; 2,4,6-Tri (dimethylaminomethyl)phenol; Tris- 2,4,6-(dimethylaminomethyl)phenol; Mannich bases, condensation products of phenol or substituted phenol, polyamines, aldehydes; NSC 3257; K54; 2,4,6-Tris[(N,N- dimethylamino)methyl]phenol	≥1 - ≤5	90-72-2

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-aid measures

#### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Section 4. First-aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Triethylenetetramine	<b>CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.</b> TWA: 3 mg/m <sup>3</sup> 8 hours. TWA: 0.5 ppm 8 hours.

#### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields

#### Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 1 - 4 hours (breakthrough time): butyl rubber nitrile rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Possible: self-contained breathing apparatus (SCBA)

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	: Liquid. [Fluid.]
<b>Color</b>	: Amber.
<b>Odor</b>	: Amine-like.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 11 [Conc. (% w/w): 10%]
<b>Melting point/freezing point</b>	: Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	: 278°C (532.4°F)
<b>Flash point</b>	: Closed cup: >110°C (>230°F) Open cup: >110°C (>230°F)
<b>Flammability</b>	: Not available.
<b>Lower and upper explosion limit/flammability limit</b>	: Not available.
<b>Vapor pressure</b>	:

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
2,4,6-tris(dimethylaminomethyl)phenol	0.06	0.008	EU A.4			
Triethylenetetramine	<0.01	<0.0013				
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	0	0				
Cashew, nutshell liq.	0	0	OECD 104			

<b>Relative vapor density</b>	: Not available.
<b>Relative density</b>	: Not available.
<b>Density</b>	: 0.98 g/cm <sup>3</sup> [20°C (68°F)]
<b>Solubility in water</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	:

Ingredient name	°C	°F	Method
Triethylenetetramine	337.78	640	
2,4,6-tris(dimethylaminomethyl)phenol	382	719.6	EU A.15
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	398	748.4	

<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.

### Particle characteristics

<b>Median particle size</b>	: Not applicable.
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## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	LD50 Dermal	Rat	2000 mg/kg	-
Cashew, nutshell liq.	LD50 Oral	Rat	2000 mg/kg	-
	LD50 Dermal	Rat	2000 mg/kg	-
Triethylenetetramine	LD50 Oral	Rat	2000 mg/kg	-
	LD50 Dermal	Rabbit	805 mg/kg	-
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Oral	Rat	2500 mg/kg	-
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Triethylenetetramine	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	49 mg	-
	Skin - Severe irritant	Rabbit	-	490 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
2,4,6-tris (dimethylaminomethyl) phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Mild irritant	Rat	-	0.025 MI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Severe irritant	Rat	-	0.25 MI	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity



## Section 11. Toxicological information

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Canusa Liquid Epoxy Type E-WF - Cure	2072.7	1582.0	N/A	N/A	N/A
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	2000	2000	N/A	N/A	N/A
Cashew, nutshell liq.	2000	2000	N/A	N/A	N/A
Triethylenetetramine	2500	805	N/A	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	NOEC 1.25 mg/l	Algae	-
	Acute EC50 5.18 mg/l	Daphnia	48 hours
	Acute LC50 7.07 mg/l Fresh water	Fish	96 hours
Triethylenetetramine	Acute LC50 33900 µg/l Fresh water	Daphnia - Daphnia magna	48 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Cashew, nutshell liq.	>4.78	-	high
Triethylenetetramine	-1.66 to -1.4	-	low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	low

### Mobility in soil





Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number	UN2735	UN2735	UN2735	UN2735
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (Triethylenetetramine)	Amines, liquid, corrosive, n.o.s. (Triethylenetetramine)	AMINES, LIQUID, CORROSIVE, N.O.S. (Triethylenetetramine)	Amines, liquid, corrosive, n.o.s. (Triethylenetetramine)
Transport hazard class(es)	8 	8 	8 	8 
Packing group	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

### Additional information

#### TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.

**Explosive Limit and Limited Quantity Index 5**

**Passenger Carrying Road or Rail Index 5**

**Special provisions 16**

#### DOT Classification

: This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

**Limited quantity Yes.**

**Packaging instruction** Exceptions: 154. Non-bulk: 203. Bulk: 241.

**Quantity limitation** Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.

**Special provisions** IB3, T7, TP1, TP28

#### IMDG

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

**Emergency schedules** F-A, S-B

**Special provisions** 223, 274

**IMDG Code Segregation group** SGG18 - Alkalis

#### IATA

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 852.

Cargo Aircraft Only: 60 L. Packaging instructions: 856. Limited Quantities -

Passenger Aircraft: 1 L. Packaging instructions: Y841.

**Special provisions** A3, A803

#### Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

#### Transport in bulk according to IMO instruments

: Not available.

## Section 15. Regulatory information

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**Australia** : Not determined.

**Canada** : At least one component is not listed in DSL but all such components are listed in NDSL.

**China** : Not determined.

**Eurasian Economic Union** : **Russian Federation inventory**: Not determined.

**Japan** : **Japan inventory (CSCL)**: Not determined.

**Japan inventory (ISHL)**: Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : Not determined.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : All components are listed or exempted.

**Thailand** : Not determined.

**Turkey** : Not determined.

**United States** : All components are active or exempted.

**Viet Nam** : All components are listed or exempted.

## Section 16. Other information

### History

**Date of printing** : 12/5/2022

**Date of issue/Date of revision** : 12/5/2022

**Date of previous issue** : No previous validation

**Version** : 1

### Key to abbreviations

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

## Section 16. Other information

UN = United Nations

### Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (dermal) - Category 4	Calculation method
SKIN CORROSION - Category 1	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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