

SAFETY DATA SHEET



DELO-DUOPOX® AD840 Component B

Section 1. Identification

GHS product identifier : DELO-DUOPOX® AD840 Component B

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

Identified uses

Use of the substance/mixture: Adhesive.

Process categories [PROC]:

PROC01: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC02: Use in closed, continuous process with occasional controlled exposure.

PROC03: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition.

PROC04: Chemical production where opportunity for exposure arises.

PROC05: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact).

PROC09: Transfer of substance or mixture into small containers (dedicated filling line, including weighing).

PROC10: Roller application or brushing of adhesive and other coating.

Environmental release categories [ERC]:

ERC02: Formulation into mixture.

ERC05: Use at industrial site leading to inclusion into/onto article.

Product categories [PC]:

PC01: Adhesives, sealants.

Sector of uses [SU]:

SU03: Industrial uses.

SU10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys).

SU16: Manufacture of computer, electronic and optical products, electrical equipment.

SU17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment.

SU22: Professional uses.

*: Mixture.

Manufacturer : **DELO** Industrie Klebstoffe GmbH & Co. KGaA
DELO-Allee 1
86949 Windach
Germany

Information contact : **DELO** Industrial Adhesives L.L.C.
144 North Road, Suite 2650
Sudbury, MA 01776
USA
+1 978 254 5275

e-mail address of person responsible for this SDS : sds@DELO.de

In case of emergency : National advisory body/Poison Center
+1 800 222 1222
In case of emergency [Transport]:
United States : GlobalChem24: +1 866 928 0789
Canada : GlobalChem24: +1 800 579 7421
Mexico : GlobalChem24: +52 55 5004 8763
24-hour telephone and/or website

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SKIN CORROSION - Category 1B SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
GHS label elements	
Hazard pictograms	: 
Signal word	: Danger
Hazard statements	: Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure. (digestive system, immune system, liver)
Precautionary statements	
Prevention	: Wear protective gloves: 1 - 4 hours (breakthrough time): Recommended: Viton® fluor rubber / Short term exposure < 15 min Nitrile gloves. Wear protective clothing. Wear eye or face protection. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response	:  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. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. 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.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: Air contaminants may be formed during use of the product.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Hazardous ingredients	:

Ingredient name	%	CAS number
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	25 - 75	CAS: 68082-29-1
Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-	2.5 - 10	CAS: 9046-10-0
Phenol, styrenated	2.5 - 10	CAS: 61788-44-1
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	< 2.5	CAS: 3069-29-2
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	< 2.5	CAS: 2156592-58-2
2-methylpentane-1,5-diamine	< 2.5	CAS: 15520-10-2
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	< 1	CAS: 25513-64-8

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

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. 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

Section 4. First aid measures

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
metal oxide/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.

Remark : Non-flammable but will burn on prolonged exposure to flame or high temperature.

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).

Section 6. Accidental release measures

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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

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** : Storage temperature: Observe technical data sheet/instructions for use. 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
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	None.
Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-	None.
Phenol, styrenated	None.
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	None.
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	None.
2-methylpentane-1,5-diamine	None.
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	None.
methanol	[Air contaminant - Curing] NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 200 ppm.

Section 8. Exposure controls/personal protection

TWA 10 hours: 260 mg/m³.
 STEL 15 minutes: 250 ppm.
 STEL 15 minutes: 325 mg/m³.
CAL OSHA PEL (United States, 5/2018)
 Absorbed through skin.
 STEL 15 minutes: 325 mg/m³.
 STEL 15 minutes: 250 ppm.
 C: 1000 ppm.
 TWA 8 hours: 260 mg/m³.
 TWA 8 hours: 200 ppm.
OSHA PEL (United States, 5/2018)
 TWA 8 hours: 200 ppm.
 TWA 8 hours: 260 mg/m³.
OSHA PEL 1989 (United States, 3/1989)
 Absorbed through skin.
 TWA 8 hours: 200 ppm.
 TWA 8 hours: 260 mg/m³.
 STEL 15 minutes: 250 ppm.
 STEL 15 minutes: 325 mg/m³.
ACGIH TLV (United States, 1/2024)
 Absorbed through skin.
 TWA 8 hours: 200 ppm.
 TWA 8 hours: 262 mg/m³.
 STEL 15 minutes: 250 ppm.
 STEL 15 minutes: 328 mg/m³.

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.

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); Recommended: Viton® fluor rubber / Short term exposure < 15 min Nitrile gloves

Section 8. Exposure controls/personal protection

- 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.
- 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. Recommended: organic vapor filter (Type A)

Section 9. Physical and chemical properties

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

Appearance

- Physical state** : Liquid. [Viscous mass.]
- Color** : Black.
- Odor** : Amine-like.
- pH** : Not applicable.
- Melting point/freezing point** : Technically not possible to measure
- Boiling point or initial boiling point and boiling range** : Not applicable. [Polymerization.]
- Flash point** : Closed cup: >90°C (>194°F)
- Evaporation rate** : Not available.
- Flammability** : Non-flammable but will burn on prolonged exposure to flame or high temperature.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** : Not applicable.
- Relative vapor density** : Not available.
- Relative density** : ~ 1.33
- Density** : 1.33 g/cm³ [23°C (73.4°F)]
- Partition coefficient: n-octanol/water** : Not applicable. [Mixture.]
- Decomposition temperature** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): 94000 mm²/s (94000 cSt)
Kinematic (40°C (104°F)): Not available.
Thixotropic liquid
refer to technical data sheet

Particle characteristics

- Median particle size** : Not applicable. [Liquid.]
- Additional information** : Liquid.

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, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)- Phenol, styrenated Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl 2-methylpentane-1,5-diamine	LD50 Oral	Rat - Female	>2000 mg/kg	-
	LC50 Inhalation Vapor	Rat - Male, Female	>0.74 g/m ³	8 hours
	LD50 Dermal	Rabbit	2085.8 mg/kg	-
	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	1300 mg/kg	-
	LC50 Inhalation Vapor	Rat	2900 mg/m ³	1 hours
	LD50 Oral	Rat	1690 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)- Phenol, styrenated Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	Skin - Irritant	Mammal - species unspecified	-	-	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit	-	0.1 MI	-
	Skin - Mild irritant	Rabbit	-	0.5 MI	-
	Eyes - Cornea opacity	Rabbit	3.33	24 hours	72 hours
	Eyes - Edema of the conjunctivae	Rabbit	3.11	24 hours	72 hours
	Eyes - Iris lesion	Rabbit	1	24 hours	72 hours

Section 11. Toxicological information
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2-methylpentane-1,5-diamine	Eyes - Redness of the conjunctivae	Rabbit	3	24 hours	72 hours
	Skin - Edema	Rabbit	1.7	3 minutes	72 hours
	Skin - Edema	Rabbit	1.33	60 minutes	72 hours
	Skin - Erythema/Eschar	Rabbit	1.9	3 minutes	72 hours
	Skin - Erythema/Eschar	Rabbit	1.77	60 minutes	72 hours
	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
	Skin - Severe irritant	Rabbit	-	0.5 MI	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	skin	Rabbit	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl 2-methylpentane-1,5-diamine	Category 3	-	Respiratory tract irritation
	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	Category 2	-	digestive system, immune system, liver

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. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

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	: May cause damage to organs through prolonged or repeated exposure. 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 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)- Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	Acute EC50 7.7 mg/l	Daphnia	48 hours
	Acute EC50 15 mg/l	Daphnia	48 hours
	Acute IC50 135 mg/l	Algae	72 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC10 7 mg/l Fresh water	Micro-organism	3 hours
	Acute EC50 0.39 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 32 mg/l Fresh water	Micro-organism	3 hours
	Acute LC50 4.21 mg/l Fresh water	Fish - <i>Danio rerio</i>	96 hours
	Acute NOEC 0.125 mg/l Fresh water	Algae - <i>Desmodesmus</i>	72 hours

Section 12. Ecological information

	Acute NOEC 1.78 mg/l Fresh water	<i>subspicatus</i> Fish - <i>Danio rerio</i>	96 hours
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Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-	-	<60 % - Not readily - 28 days	-	-
Product/ingredient name	Aquatic half-life		Photolysis	Biodegradability
Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-	-		-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-	1.34	-	Low
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	4.33	-	High
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	-0.3	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc})

: 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

	DOT Classification	Mexico Classification	IMDG	IATA
UN number	UN3259	UN3259	UN3259	UN3259
UN proper shipping name	Polyamines, solid, corrosive n.o.s. (Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-, Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl)	POLIAMINAS SÓLIDAS, CORROSIVAS, N.E.P. (Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-, Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl)	POLYAMINES, SOLID, CORROSIVE, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-, Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl). Marine pollutant (Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine, Phenol, styrenated)	Polyamines, solid, corrosive, n.o.s. (Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-, Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl)
Transport hazard class(es)	8 	8 	8  	8 
Packing group	II	II	II	II
Environmental hazards	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

DOT Classification

- : **Limited quantity** Yes.
- Packaging instruction** Exceptions: 154. Non-bulk: 212. Bulk: 240.
- Quantity limitation** Passenger aircraft/rail: 15 kg. Cargo aircraft: 50 kg.
- Special provisions** IB8, IP2, IP4, T3, TP33

Mexico Classification

- : **Special provisions** 274

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** 274

IATA

- : The environmentally hazardous substance mark may appear if required by other transportation regulations.
- Quantity limitation** Passenger and Cargo Aircraft: 15 kg. Packaging instructions: 859. Cargo Aircraft Only: 50 kg. Packaging instructions: 863. Limited Quantities - Passenger Aircraft: 5 kg. Packaging instructions: Y844.
- 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 14. Transport information

Section 15. Regulatory information

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SKIN CORROSION - Category 1B
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Air contaminant

Composition/information on ingredients

Name	%	Classification
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	25 - 75	SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A
Poly[oxy(methyl-1,2-ethanediyl)], alpha-(2-aminomethylethyl)-omega-(2-aminomethylethoxy)-Phenol, styrenated	2.5 - 10	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	2.5 - 10	EYE IRRITATION - Category 2B
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl	< 2.5	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
2-methylpentane-1,5-diamine	< 2.5	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	< 1	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1A SKIN SENSITIZATION - Category 1A

Section 15. Regulatory information

State regulations

- Massachusetts** : The following components are listed: CALCIUM CARBONATE
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: CALCIUM CARBONATE; CARBON BLACK
- Pennsylvania** : The following components are listed: LIMESTONE
- California Prop. 65**

 **WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Methanol	-	Yes.

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.

EU Regulation (EC) No. 1907/2006 (REACH)

Substances of very high concern

None of the components are listed.

Inventory list

United States : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION - Category 1B	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

- Date of printing** : 2025-03-28.
- Date of issue/Date of revision** : 2025-03-28.
- Date of previous issue** : 2024-03-28.
- Version** : 1.14

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
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)
UN = United Nations

References

: Not available.

▣ Indicates information that has changed from previously issued version.

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