



Safety Data Sheet according to (EC) No 1907/2006 as amended

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LOCTITE ABLESTIK 2902-H known as TRA-DUCT 2902-H

SDS No. : 376868
V002.0

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE ABLESTIK 2902-H known as TRA-DUCT 2902-H

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

Intended use:
Epoxy Hardener

1.3. Details of the supplier of the safety data sheet

Henkel Ireland
Operations and Research Limited
Tallaght Business Park, Whitestown
24 Dublin

Ireland

Phone: +353 (0353) 1 404 6444

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or www.henkel-adhesives.com.

1.4. Emergency telephone number

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin corrosion	Sub-category 1B
H314 Causes severe skin burns and eye damage.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane

3,6-diazaoctanethylenediamine

Signal word:

Danger

Hazard statement:

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement:
Prevention

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement:
Response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration $\geq$ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration $\geq$ the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	50- 100 %	Skin Irrit. 2, H315 Aquatic Chronic 2, H411 Skin Sens. 1B, H317 Eye Irrit. 2, H319		
3,6-diazaoctanethylenediamine 112-24-3 203-950-6 01-2119487919-13	5- < 10 %	Acute Tox. 4, Oral, H302 Acute Tox. 4, Dermal, H312 Skin Sens. 1, H317 Skin Corr. 1B, H314 Aquatic Chronic 3, H412		
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2 202-013-9 01-2119560597-27	1- < 5 %	Acute Tox. 4, Oral, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319		

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.

For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Rash, Urticaria.

Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Keep away from sources of ignition.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Keep container tightly sealed.

Store at room temperature.

7.3. Specific end use(s)

Epoxy Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters**Occupational Exposure Limits**

Valid for
Ireland

None

Occupational Exposure Limits

Valid for
Great Britain

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	aqua (freshwater)		0,004 mg/l				
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	aqua (intermittent releases)		0,041 mg/l				
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	aqua (marine water)		0 mg/l				
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	sewage treatment plant (STP)		4,3 mg/l				
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	sediment (freshwater)				0,171 mg/kg		
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	sediment (marine water)				0,017 mg/kg		
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	Soil				0,003 mg/kg		
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	Predator						no potential for bioaccumulation
3,6-diazaoctanethylenediamine 112-24-3	aqua (freshwater)		0,027 mg/l				
3,6-diazaoctanethylenediamine 112-24-3	aqua (marine water)		0,003 mg/l				
3,6-diazaoctanethylenediamine 112-24-3	Sewage treatment plant		0,13 mg/l				
3,6-diazaoctanethylenediamine 112-24-3	sediment (freshwater)				8,572 mg/kg		
3,6-diazaoctanethylenediamine 112-24-3	sediment (marine water)				0,857 mg/kg		
3,6-diazaoctanethylenediamine 112-24-3	Soil				1,25 mg/kg		
3,6-diazaoctanethylenediamine 112-24-3	Freshwater - intermittent		0,2 mg/l				
3,6-diazaoctanethylenediamine 112-24-3	Marine water - intermittent		0,02 mg/l				
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	aqua (freshwater)		0,046 mg/l				
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	aqua (marine water)		0,005 mg/l				
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Freshwater - intermittent		0,46 mg/l				
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Marine water - intermittent		0,046 mg/l				
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	sewage treatment plant (STP)		0,2 mg/l				
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	sediment (freshwater)				0,262 mg/kg		
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	sediment (marine water)				0,026 mg/kg		
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Soil				0,025 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
3,6-diazaoctanethylenediamine 112-24-3	Workers	inhalation	Long term exposure - systemic effects		0,54 mg/m3	
3,6-diazaoctanethylenediamine 112-24-3	General population	inhalation	Long term exposure - systemic effects		0,096 mg/m3	
3,6-diazaoctanethylenediamine 112-24-3	General population	oral	Long term exposure - systemic effects		0,14 mg/kg	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Workers	inhalation	Long term exposure - systemic effects		0,53 mg/m3	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Workers	inhalation	Acute/short term exposure - systemic effects		2,1 mg/m3	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Workers	dermal	Long term exposure - systemic effects		0,15 mg/kg	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	Workers	dermal	Acute/short term exposure - systemic effects		0,6 mg/kg	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	General population	inhalation	Long term exposure - systemic effects		0,13 mg/m3	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	General population	inhalation	Acute/short term exposure - systemic effects		0,13 mg/m3	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	General population	dermal	Long term exposure - systemic effects		0,075 mg/kg	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	General population	dermal	Acute/short term exposure - systemic effects		0,075 mg/kg	
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	General population	oral	Long term exposure - systemic effects		0,075 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Protective eye equipment should conform to EN166.

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	liquid
Colour	yellow
Odor	Amine
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< 10 °C (< 50 °F)
Initial boiling point	Not applicable, Decomposes before boiling point is reached
Flammability	Not applicable Non flammable product (flash point is greater than 93°C)
Explosive limits	Not applicable, The product is not flammable.
Flash point	> 135 °C (> 275 °F); Closed cup
Auto-ignition temperature	Not applicable, The product is not flammable.
Decomposition temperature	> 100 °C (> 212 °F);
pH	9 - 11
(20 °C (68 °F); Conc.: 1 % product; Solvent: Water)	
Viscosity (kinematic)	> 30 mm ² /s
(40 °C (104 °F);)	
Viscosity, dynamic	Not determined
()	
Solubility (qualitative)	Slightly soluble
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	< 1,00 mm hg
Density	1,00 g/cm ³ no method / method unknown
(25 °C (77 °F))	
Relative vapour density:	> 1,0
(20 °C)	

Particle characteristics

Not applicable
Product is a liquid**9.2. Other information**

Other information not applicable for this product

SECTION 10: Stability and reactivity**10.1. Reactivity**Reacts with strong oxidants.
Acids.
Strong bases.**10.2. Chemical stability**

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition productsRapid polymerisation may generate excessive heat and pressure.
May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.**SECTION 11: Toxicological information****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	LD50	4.500 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
3,6- diazaoctanethylenediamin e 112-24-3	LD50	1.591 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2,4,6- tris(dimethylaminomethyl)phenol 90-72-2	LD50	1.200 mg/kg	rat	not specified

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	LD50	> 2.150 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
3,6- diazaoctanethylenediamin e 112-24-3	LD50	1.465 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No substance data available.

No data available.

Skin corrosion/irritation:

Corrosive

Causes burns.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
3,6- diazaoctanethylenediamin e 112-24-3	corrosive		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2,4,6- tris(dimethylaminomethyl) phenol 90-72-2	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2,4,6- tris(dimethylaminomethyl) phenol 90-72-2	Sub-Category 1C (corrosive)		Corrositex Biobarrier Membrane (reconstituted collagen matrix)	OECD Guideline 435 (In Vitro Membrane Barrier Test Method for Skin Corrosion)

Serious eye damage/irritation:

Corrosive

The product may cause serious eye damage.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	irritating		rabbit	other guideline:

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	Sub-Category 1B (sensitising)	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
3,6- diazaoctanethylenediamin e 112-24-3	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
2,4,6- tris(dimethylaminomethyl)phenol 90-72-2	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2,4,6- tris(dimethylaminomethyl)phenol 90-72-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
3,6- diazaoctanethylenediamin e 112-24-3	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
3,6- diazaoctanethylenediamin e 112-24-3	negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	with and without		OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
2,4,6- tris(dimethylaminomethyl)phenol 90-72-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,4,6- tris(dimethylaminomethyl)phenol 90-72-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2,4,6- tris(dimethylaminomethyl)phenol 90-72-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
3,6- diazaoctanethylenediamin e 112-24-3	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

No data available.

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	NOAEL P 750 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- , polymer with 2- methyloxirane 26950-63-0	NOAEL 300 mg/kg	oral: gavage	M:43-44 d / F: <=65d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
3,6- diazaoctanethylenediamin e 112-24-3	LOAEL 50 mg/kg	oral: gavage	26 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
3,6- diazaoctanethylenediamin e 112-24-3	NOAEL 50 mg/kg	oral: gavage	26 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information**General ecological information:**

Do not empty into drains / surface water / ground water.

12.1. Toxicity**Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	LC50	4,1 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
3,6-diazaoctanethylenediamine 112-24-3	LC50	570 mg/l	96 h	Poecilia reticulata	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	LC50	153 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	ISO 7346-1 (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish [Brachydanio rerio Hamilton-Buchanan (Teleostei, Cyprinidae)])

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	EC50	48 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3,6-diazaoctanethylenediamine 112-24-3	EC50	31 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

No data available.

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	EC50	4,1 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	EC10	0,11 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
3,6-diazaoctanethylenediamine 112-24-3	EC50	20 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	EC50	46,7 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	NOEC	6,44 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	EC10	38 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
3,6-diazaoctanethylenediamine 112-24-3	EC0	137 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	EC0	27 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	not inherently biodegradable	aerobic	8 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	not readily biodegradable.	aerobic	4 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
3,6-diazaoctanethylenediamine 112-24-3	not inherently biodegradable	aerobic	0 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
3,6-diazaoctanethylenediamine 112-24-3	not readily biodegradable.	aerobic	0 %	162 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	not readily biodegradable.	aerobic	4 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

No substance data available.
No data available.

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	-2,42		QSAR (Quantitative Structure Activity Relationship)
3,6-diazaoctanethylenediamine 112-24-3	-2,65		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	-0,66	21,5 °C	EPA OPPTS 830.7550 (Partition Coefficient, n-octanol / H2O, Shake Flask Method)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-, polymer with 2-methyloxirane 26950-63-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
3,6-diazaoctanethylenediamine 112-24-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information**14.1. UN number or ID number**

ADR	1760
RID	1760
IMDG	1760
IATA	1760

14.2. UN proper shipping name

ADR	CORROSIVE LIQUID, N.O.S. (Triethylenetetramine,2,4,6-Tris(dimethyl amino methyl) phenole)
RID	CORROSIVE LIQUID, N.O.S. (Triethylenetetramine,2,4,6-Tris(dimethyl amino methyl) phenole)
IMDG	CORROSIVE LIQUID, N.O.S. (Triethylenetetramine,2,4,6-Tris(dimethyl amino methyl) phenole,Triethylenetetramine, PO~)
IATA	Corrosive liquid, n.o.s. (Triethylenetetramine,2,4,6-Tris(dimethyl amino methyl) phenole)

14.3. Transport hazard class(es)

ADR	8
RID	8
IMDG	8
IATA	8

14.4. Packing group

ADR	II
RID	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine Pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable

VOC content < 3 %
(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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