



SAFETY DATA SHEET
TL4 Leak detecting spray

Issue Date: 13.10.2020
Last revised date: 23.10.2020

Version: 1.0

SDS No.: 000010059150
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: TL4 Leak detecting spray

Trade name: TL4 LÄCKSÖKNINGSSPRAY

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

Identified uses: Consumer use. Industrial and professional. Perform risk assessment prior to use.

Uses advised against Contact supplier for more information on uses.

1.3 Details of the supplier of the safety data sheet

Supplier

Linde Gas AB
Rättarvägen 3
169 68 Solna

Telephone: +46 8 7069500

E-mail: sds.ren@linde.com

1.4 Emergency telephone number: Poison center: 020-99 60 00 (24 h). Emergency number: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended.

Physical Hazards

Aerosols Category 3 H229: Pressurized container: May burst if heated.

Health Hazards

Serious eye irritation Category 2 H319: Causes serious eye irritation.

2.2 Label Elements



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Signal Word: Warning

Hazard Statement(s): H229: Pressurized container: May burst if heated.
H319: Causes serious eye irritation.

Precautionary Statements
General

None.

Prevention:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251: Do not pierce or burn, even after use.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P337+P313: If eye irritation persists: Get medical advice/attention.

Storage:

P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Supplemental information

EUH208 Contains (1,2-Benzisothiazol-3(2H)-one). May produce an allergic reaction.

2.3 Other hazards

None.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical name	Chemical formula	Concentration	CAS-No.	REACH Registration No.	M-Factor:	Notes
2-Amino-2-methylpropanol	C4H11NO	0,99%	124-68-5	01-2119475788-16	-	



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(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	C21H39NO3	2,49%	110-25-8	Not available.	-	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	C _n H(2n+3)NO, where n=14/16	2.499PPM	308062-28-4	01-2119490061-47	-	
4,4-Dimethyloxazolidine	C5H11NO	999PPM	51200-87-4	01-2120794002-61	-	
2-Aminobutan-1-ol	C4H11NO	999PPM	96-20-8	01-2119492338-28	-	
1,2-Benzisothiazol-3(2H)-one	C7H5NOS	249PPM	2634-33-5	01-2120761540-60	-	
Water	H2O	96,0454%	7732-18-5	Not available.	-	

The concentrations of the components in the SDS header, product name on page one and in section 3.2 are in mol due to regulatory requirements. All concentrations are nominal.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification		Notes
2-Amino-2-methylpropanol	CLP:	Skin Irrit. 2;H315, Eye Irrit. 2;H319, Aquatic Chronic 3;H412	
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	CLP:	Skin Irrit. 2;H315, Eye Dam. 1;H318, Acute Tox. 4;H332, Aquatic Acute 1;H400	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	CLP:	Acute Tox. 4;H302, Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Acute 1;H400, Aquatic Chronic 2;H411	
4,4-Dimethyloxazolidine	CLP:	Flam. Liq. 3;H226, Acute Tox. 4;H302, Acute Tox. 3;H331, Skin Irrit. 2;H315, Eye Dam. 1;H318	
2-Aminobutan-1-ol	CLP:	Acute Tox. 4;H302, Skin Corr. 1B;H314, Eye Dam. 1;H318, Aquatic Acute 1;H400	
1,2-Benzisothiazol-3(2H)-one	CLP:	Acute Tox. 4;H302, Skin Irrit. 2;H315, Eye Dam. 1;H318, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 2;H411	
Water	CLP:	none	

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.



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SECTION 4: First aid measures

General: Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

4.1 Description of first aid measures

Inhalation: Move the exposed person to fresh air at once. If breathing stops, provide artificial respiration. Symptoms may include: Dizziness. Nausea, vomiting.

Eye contact: Rinse the eye with water immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

Ingestion: Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed: Irritating to eyes, respiratory system and skin.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: Irritating to eyes, respiratory system and skin.

Treatment: Do not give direct mouth-to-mouth resuscitation if swallowed. To protect rescuer, use air-viva, oxy-viva or one-way mask. Resuscitate in a well-ventilated area. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. Treat with a corticosteroid spray as soon as possible after inhalation. Get immediate medical advice/attention.

SECTION 5: Firefighting measures

General Fire Hazards: Heat may cause the containers to explode.

5.1 Extinguishing media

Suitable extinguishing media: Use water spray to reduce vapors or divert vapor cloud drift. Water Spray or Fog. Dry powder. Foam. Carbon Dioxide.



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Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture: Fire or excessive heat may produce hazardous decomposition products.

5.3 Advice for firefighters

Special fire fighting procedures: In case of fire: Stop leak if safe to do so. Use of water may result in the formation of very toxic aqueous solutions. Keep run-off water out of sewers and water sources. Dike for water control. Continue water spray from protected position until container stays cool. Use extinguishants to contain the fire. Isolate the source of the fire or let it burn out.

Special protective equipment for fire-fighters: Gas tight chemically protective clothing (Type 1) in combination with self contained breathing apparatus.
 Guideline: EN 943-2 Protective clothing against liquid and gaseous chemicals, aerosols and solid particles. Performance requirements for gas-tight (Type 1) chemical protective suits for emergency teams (ET)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Evacuate area. Provide adequate ventilation. Monitor the concentration of the released product. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. EN 137 Respiratory protective devices - Self-contained open-circuit compressed air breathing apparatus with full face mask - Requirements, testing, marking.

6.2 Environmental Precautions: Prevent further leakage or spillage if safe to do so. Reduce vapour with fog or fine water spray. Keep run-off water out of sewers and water sources. Dike for water control.

6.3 Methods and material for containment and cleaning up: Provide adequate ventilation. Wash contaminated equipment or sites of leaks with copious quantities of water.

6.4 Reference to other sections: Refer to sections 8 and 13.



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SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** Do not handle until all safety precautions have been read and understood. Avoid exposure - obtain special instructions before use. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Refer to supplier's handling instructions. The substance must be handled in accordance with good industrial hygiene and safety procedures. Protect containers from physical damage; do not drag, roll, slide or drop. Do not remove or deface labels provided by the supplier for the identification of the container contents. When moving containers, even for short distances, use appropriate equipment eg. trolley, hand truck, fork truck etc. Provide adequate ventilation. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Keep container below 50°C in a well ventilated place. Avoid suckback of water, acid and alkalis. Observe all regulations and local requirements regarding storage of containers. When using do not eat, drink or smoke. Store in accordance with local/regional/national/international regulations. Never use direct flame or electrical heating devices to raise the pressure of a container. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
- 7.2 Conditions for safe storage, including any incompatibilities:** Containers should not be stored in conditions likely to encourage corrosion. Keep away from food, drink and animal feeding stuffs. Stored containers should be periodically checked for general conditions and leakage. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible material.
- 7.3 Specific end use(s):** None.

SECTION 8: Exposure controls/personal protection

- 8.1 Control Parameters**
Occupational Exposure Limits None of the components have assigned exposure limits.



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DNEL-Values

Critical component	Type	Value	Remarks
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	Workers - Inhalation, Systemic, short-term	18 mg/m ³	Acute toxicity
	Workers - Inhalation, Systemic, long-term	0,2 mg/m ³	Repeated dose toxicity
	Workers - Dermal, Systemic, long-term	10 mg/kg bw/day	Repeated dose toxicity
	Workers - Inhalation, Local, long-term	0,01 mg/m ³	Repeated dose toxicity
	Workers - Inhalation, Local, short-term	18 mg/m ³	Acute toxicity
	Workers - Eyes, Local effect		No data available

PNEC-Values

Critical component	Type	Value	Remarks
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2-Amino-2-methylpropanol	Aquatic (freshwater)	0,188 mg/l	-
2-Amino-2-methylpropanol	Sewage treatment plant	10 mg/l	-
2-Amino-2-methylpropanol	Aquatic (marine water)	0,019 mg/l	-
2-Amino-2-methylpropanol	Sediment (marine water)	0,071 mg/kg	-
2-Amino-2-methylpropanol	Soil	0,03 mg/kg	-
2-Amino-2-methylpropanol	Sediment (freshwater)	0,71 mg/kg	-
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	Aquatic (intermit. releases)	4,3 µg/l	-
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	Aquatic (marine water)	0,043 µg/l	-
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	Sewage treatment plant	13 mg/l	-
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	Aquatic (freshwater)	0,43 µg/l	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Aquatic (marine water)	0,003 mg/l	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Soil	1,02 mg/kg	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Sediment (marine water)	0,524 mg/kg	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Aquatic (freshwater)	0,034 mg/l	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Sediment (freshwater)	5,24 mg/kg	-



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Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Predator	11,1 mg/kg	Oral
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Sewage treatment plant	24 mg/l	-
2-Aminobutan-1-ol	Soil	0,18 µg/kg	-
2-Aminobutan-1-ol	Sewage treatment plant	10 mg/l	-
2-Aminobutan-1-ol	Sediment (freshwater)	3,59 µg/kg	-
2-Aminobutan-1-ol	Sediment (marine water)	0,359 µg/kg	-
2-Aminobutan-1-ol	Aquatic (marine water)	0 mg/l	-
2-Aminobutan-1-ol	Aquatic (intermit. releases)	0,009 mg/l	-
2-Aminobutan-1-ol	Aquatic (freshwater)	0,001 mg/l	-

8.2 Exposure controls

Appropriate engineering controls:

Consider a work permit system e.g. for maintenance activities. Ensure adequate air ventilation. Provide adequate general and local exhaust ventilation. Keep concentrations well below occupational exposure limits. Systems under pressure should be regularly checked for leakages. Product to be handled in a closed system and under strictly controlled conditions. Only use permanent leak tight installations (e.g. welded pipes). Do not eat, drink or smoke when using the product.

Individual protection measures, such as personal protective equipment

General information:

A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered. Keep self contained breathing apparatus readily available for emergency use. Keep suitable chemically resistant protective clothing readily available for emergency use. Personal protective equipment for the body should be selected based on the task being performed and the risks involved. For waste disposal, see section 13 of the SDS. Protect eyes, face and skin from contact with product.



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Eye/face protection:	Safety eyewear, goggles or face-shield to EN166 should be used to avoid exposure to liquid splashes. Wear eye protection to EN 166 when using gases. Guideline: EN 166 Personal Eye Protection.
Skin protection	
Hand Protection:	Guideline: EN 388 Protective gloves against mechanical risks. Additional Information: Wear working gloves while handling containers Guideline: EN 374-1/2/3 Protective gloves against chemicals and micro-organisms. Additional Information: Chemically resistant gloves complying with EN 374 should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection:	No special precautions.
Other:	Wear safety shoes while handling containers Guideline: ISO 20345 Personal protective equipment - Safety footwear.
Respiratory Protection:	Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances. The selection of the Respiratory Protective Device (RPD) must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected RPD.
Thermal hazards:	No precautionary measures are necessary.
Hygiene measures:	Obtain special instructions before use. Specific risk management measures are not required beyond good industrial hygiene and safety procedures. Do not eat, drink or smoke when using the product.
Environmental exposure controls:	For waste disposal, see section 13 of the SDS.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	H2O: Colorless
Odor:	H2O: Odorless
Odor Threshold:	Odor threshold is subjective and is inadequate to warn of over



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pH:	exposure. 7,76
Freezing point:	No data available.
Boiling Point:	No data available.
Sublimation Point:	Not applicable.
Critical Temp. (°C):	No data available.
Flash Point:	Not applicable to gases and gas mixtures.
Evaporation Rate:	Not applicable to gases and gas mixtures.
Flammability (solid, gas):	This product is not flammable.
Flammability Limit - Upper (%):	Not applicable.
Flammability Limit - Lower (%):	Not applicable.
Vapor pressure:	No reliable data available.
Vapor density (air=1):	No data available.
Relative density:	0,999 (20 °C)
Solubility(ies)	
Solubility in Water:	Soluble
Partition coefficient (n-octanol/water):	Not known.
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not known.
Viscosity	
Kinematic viscosity:	No data available.
Dynamic viscosity:	No data available.
Explosive properties:	Not applicable.
Oxidizing properties:	Not applicable.

9.2 Other information:

None.

VOC Content:

EC Directive 1999/13: 9,89 g/l ~0,99 % (calculated)
EC Directive 2004/42: 36,76 g/l ~3,68 % (calculated)

SECTION 10: Stability and reactivity

10.1 Reactivity:	No reactivity hazard other than the effects described in sub-section below.
10.2 Chemical Stability:	Stable under normal conditions.
10.3 Possibility of hazardous reactions:	No data available.



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10.4 Conditions to avoid: No data available.

10.5 Incompatible Materials: No data available.

10.6 Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

General information: None.

11.1 Information on toxicological effects

Acute toxicity - Oral Product
ATEmix: > 2.000 mg/kg Based on available data, the classification criteria are not met.

Component Information

2-Amino-2-methylpropanol LD 50 (Rat): 2.900 mg/kg Remarks: Experimental result, Key study

(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine LD 50 (Rat): > 5.000 mg/kg Remarks: Experimental result, Key study

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides LD 50 (Rat): 1.064 mg/kg Remarks: Experimental result, Key study

4,4-Dimethyloxazolidine LD 50 (Rat): 956 mg/kg

2-Aminobutan-1-ol LD 50 (Rat): 1.800 mg/kg Remarks: Experimental result, Key study

1,2-Benzisothiazol-3(2H)-one LD 50 (Rat): 490 mg/kg

Acute toxicity - Dermal Product
ATEmix: > 2.000 mg/kg Based on available data, the classification criteria are not met.



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Component Information

2-Amino-2-methylpropanol	LD 50 (Rabbit): > 2.000 mg/kg Remarks: Experimental result, Key study
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD 50 (Rat): > 2.000 mg/kg Remarks: Read-across from supporting substance (structural analogue or surrogate), Key study
4,4-Dimethyloxazolidine	LD 50 (Rabbit): 2.000 mg/kg
2-Aminobutan-1-ol	Remarks: Irritating to skin.
1,2-Benzisothiazol-3(2H)-one	LD 50 (Rat): 2.000 mg/kg

Acute toxicity - Inhalation Product

Based on available data, the classification criteria are not met.

Component Information

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Remarks: Not classified for acute toxicity based on available data.
4,4-Dimethyloxazolidine	LC 50 (Rat, 4 h): 11,6 mg/l
2-Aminobutan-1-ol	Remarks: Not classified for acute toxicity based on available data.
1,2-Benzisothiazol-3(2H)-one	Remarks: Not classified for acute toxicity based on available data.

Repeated dose toxicity

Component Information

2-Amino-2-methylpropanol	LOAEL (Rat(Female, Male), Oral, 13 Weeks): < 500 mg/kg Oral Experimental result, Supporting study
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	NOAEL (Rat(Male), Inhalation): > 0,06 mg/l Inhalation Experimental result, Key study



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Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides NOAEL (Rat(Female, Male), Oral, 13 Weeks): 88 mg/kg Oral Experimental result, Supporting study

2-Aminobutan-1-ol NOAEL (Rat(Female, Male), Oral, 33 - 64 d): 10 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation Product

Based on available data, the classification criteria are not met.

Component Information

(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine in vivo (Rabbit): Irritating Experimental result, Key study

4,4-Dimethyloxazolidine Irritating to skin.

1,2-Benzisothiazol-3(2H)-one Irritating to skin.

Serious Eye Damage/Eye Irritation Product

Causes serious eye irritation.

Component Information

2-Amino-2-methylpropanol in vivo (Rabbit, 48 hrs): Category 1EU

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides in vivo (Rabbit, 1 d): Category 1EU

4,4-Dimethyloxazolidine Irritating to eyes.

1,2-Benzisothiazol-3(2H)-one Irritating to eyes.

Respiratory or Skin Sensitization Product

Based on available data, the classification criteria are not met.



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Component Information

1,2-Benzisothiazol-3(2H)-one May cause sensitization.

Germ Cell Mutagenicity Product

Based on available data, the classification criteria are not met.

Carcinogenicity Product

Based on available data, the classification criteria are not met.

Reproductive toxicity Product

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure Product

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure Product

Based on available data, the classification criteria are not met.

Aspiration Hazard Product

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity Product

No ecological damage caused by this product.

Acute toxicity - Fish

Component Information

2-Amino-2-methylpropanol LC 50 (Lepomis macrochirus, 48 h): 220 mg/l (Static) Remarks: Experimental result, Key study

(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine NOAEL (Leuciscus idus, 96 h): 6,81 mg/l (Static) Remarks: Experimental result, Key study

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides LC 50 (Pimephales promelas, 96 h): 2,67 mg/l (Static) Remarks: Experimental result, Key study



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Acute toxicity - Aquatic Invertebrates

Component Information

2-Amino-2-methylpropanol	LC 50 (Crangon crangon, 48 h): 179 mg/l (semi-static) Remarks: Experimental result, Key study
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	NOAEL (Daphnia magna, 48 h): 0,38 mg/l (Static) Remarks: Experimental result, Key study
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC 50 (Daphnia magna, 48 h): 10,4 mg/l (Static) Remarks: Experimental result, Key study
2-Aminobutan-1-ol	EC 50 (Daphnia magna, 48 h): 115 mg/l (Static) Remarks: Experimental result, Key study

Chronic Toxicity - Aquatic Invertebrates

Component Information

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LC 50 (Daphnia magna, 21 d): 0,96 mg/l (flow-through) Experimental result, Key study
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12.2 Persistence and Degradability

Product

Not applicable to gases and gas mixtures..

Biodegradation

Component Information

2-Amino-2-methylpropanol	89,3 % (28 d) Detected in water. Experimental result, Key study
(Z)-N-Methyl-N-(1-oxo-9-octadecenyl)glycine	85,2 % Detected in water. Experimental result, Key study
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	93 % (4 Weeks) Detected in water. Experimental result, Supporting study
2-Aminobutan-1-ol	100 % (28 d) Detected in water. Experimental result, Key study



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12.3 Bioaccumulative potential

Product

The subject product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.

Bioconcentration Factor (BCF)

Component Information

2-Amino-2-methylpropanol

Leuciscus idus, Bioconcentration Factor (BCF): < 1 Aquatic sediment Experimental result, Supporting study

12.4 Mobility in soil

Product

Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5 Results of PBT and vPvB assessment

Product

Not classified as PBT or vPvB.

12.6 Other adverse effects:

No ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:

Avoid discharges to atmosphere. Consult supplier for specific recommendations. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Disposal methods:

Dispose of container via supplier only. Discharge, treatment, or disposal may be subject to national, state, or local laws.

SECTION 14: Transport information

ADR

14.1 UN Number: UN 1950
14.2 UN Proper Shipping Name: AEROSOLS
14.3 Transport Hazard Class(es)
Class: 2
Label(s): 2.2
Hazard No. (ADR): -
Tunnel restriction code: (E)



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14.4 Packing Group: -
 14.5 Environmental hazards: Not applicable
 14.6 Special precautions for user: -

RID

14.1 UN Number: UN 1950
 14.2 UN Proper Shipping Name: AEROSOLS
 14.3 Transport Hazard Class(es)
 Class: 2
 Label(s): 2.2
 14.4 Packing Group: -
 14.5 Environmental hazards: Not applicable
 14.6 Special precautions for user: -

IMDG

14.1 UN Number: UN 1950
 14.2 UN Proper Shipping Name: AEROSOLS
 14.3 Transport Hazard Class(es)
 Class: 2.2
 Label(s): 2.2
 EmS No.: F-D, S-U
 14.4 Packing Group: -
 14.5 Environmental hazards: Not applicable
 14.6 Special precautions for user: -

IATA

14.1 UN Number: UN 1950
 14.2 Proper Shipping Name: Aerosols, non-flammable
 14.3 Transport Hazard Class(es):
 Class: 2.2
 Label(s): 2.2
 14.4 Packing Group: -
 14.5 Environmental hazards: Not applicable
 14.6 Special precautions for user: -
 Other information
 Passenger and cargo aircraft: Allowed.
 Cargo aircraft only: Allowed.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable



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Additional identification: Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure that the container valve is closed and not leaking. Ensure adequate air ventilation.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU Regulations

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, as amended.:

Classification	Lower-tier Requirements	Upper-tier Requirements
P5c. Flammable liquids	5.000 t	50.000 t

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration
2-Amino-2-methylpropanol	124-68-5	0,1 - 1,0%
1,2-Benzisothiazol-3(2H)-one	2634-33-5	0 - <0,1%

National Regulations

Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work Directive 89/686/EEC on personal protective equipment Only products that comply with the food regulations (EC) No. 1333/2008 and (EU) No. 231/2012 and are labelled as such may be used as food additives.

This Safety Data Sheet has been produced to comply with Regulation (EU) 2015/830.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Not relevant.



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Key literature references and sources for data:

Various sources of data have been used in the compilation of this SDS, they include but are not exclusive to:
Agency for Toxic Substances and Diseases Registry (ATSDR) (<http://www.atsdr.cdc.gov/>).
European Chemical Agency: Guidance on the Compilation of Safety Data Sheets.
European Chemical Agency: Information on Registered Substances <http://apps.echa.europa.eu/registered/registered-sub.aspx#search>
European Industrial Gases Association (EIGA) Doc. 169 "Classification and Labelling guide", as amended.
International Programme on Chemical Safety (<http://www.inchem.org/>)
ISO 10156:2010 Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets.
Matheson Gas Data Book, 7th Edition.
National Institute for Standards and Technology (NIST) Standard Reference Database Number 69.
The ESIS (European chemical Substances Information System) platform of the former European Chemicals Bureau (ECB) ESIS (<http://ecb.jrc.ec.europa.eu/esis/>).
The European Chemical Industry Council (CEFIC) ERICards.
United States of America's National Library of Medicine's toxicology data network TOXNET (<http://toxnet.nlm.nih.gov/index.html>)
Threshold Limit Values (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH).
Substance specific information from suppliers.
Details given in this document are believed to be correct at the time of publication.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 as amended.	Classification procedure
Aerosols, Category 3	On basis of test data
Serious eye irritation, Category 2	On basis of test data

Wording of the H-statements in section 2 and 3

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.



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Training information: Users of breathing apparatus must be trained. Ensure operators understand the hazards.

Classification according to Regulation (EC) No 1272/2008 as amended.

Aerosol 3, H229
Eye Irrit. 2, H319

Other information: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Ensure adequate air ventilation. Ensure all national/local regulations are observed. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

Last revised date: 23.10.2020

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.