



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008

Revision date 24-Apr-2026

Revision Number 2

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

1.1. Product identifier

Product Code(s) 1801, 1801-1, 1805, 1815, 1830, 1855

Product Name Citranox

Other means of identification

Unique Formula Identifier (UFI) 9090-G056-100G-HXQD

Synonyms None

Substance/mixture Mixture

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

Recommended use Detergent

Uses advised against Do not mix with other detergents unless otherwise specified

1.3. Details of the supplier of the safety data sheet

Supplier

Alconox LLC
30 Glenn St., Suite 309
White Plains, NY 10603 USA
+1-914-948-4040

For further information, please contact

E-mail address cleaning@alconox.com

1.4. Emergency telephone number

Emergency telephone VelocityEHS
North America: 1-888-255-3924
International: +1-813-248-0573

Emergency telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin irritation	Category 2 - (H315)
Eye irritation	Category 2 - (H319)

2.2. Label elements

**Signal word**

Warning

Hazard statements

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary statements

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P280 - Wear protective gloves, eye protection and face protection.

P321 - Specific treatment (see supplemental first aid instructions on this label).

P332 + P313 - If skin irritation occurs: Get medical advice and attention.

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

P362 + P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards**Other hazards**

May be harmful if swallowed. Harmful to aquatic life.

PBT or vPvB properties

The mixture does not contain any substances meeting the PBT or vPvB criteria according to Regulation (EC) No 1907/2006, Annex XIII.

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Citric acid 77-92-9	10-20	No data available	201-069-1 (607-750-00-3)	Eye Irrit. 2 (H319) STOT SE 3 (H335)	-	-	-	-
Acetic acid, 2-hydroxy- 79-14-1	7-13	No data available	201-180-5	Acute Tox. 4 (H332) Skin Corr. 1A (H314) Eye Dam. 1 (H318)	-	-	-	-
Benzenesulfonic acid, C10-16-alkyl derivatives, compounds with 2-propanamine 68584-24-7	5-10	No data available	271-531-5	Acute Tox. 4 (H302) Eye Irrit. 2A (H319)	-	-	-	-
Triethanolamine 102-71-6	1-5	No data available	203-049-8	[C]	-	-	-	-

Alcohol ethoxylate 84133-50-6	1-5	No data available	-	Skin Irrit. 2 (H315) Acute Tox. 4 (H302) Eye Dam. 1 (H318) *Self-class.	-	-	-	-
----------------------------------	-----	-------------------	---	--	---	---	---	---

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Citric acid 77-92-9	3000	2002	No data available	No data available	No data available
Acetic acid, 2-hydroxy- 79-14-1	1950	No data available	5.2052 3.6	No data available	No data available
Triethanolamine 102-71-6	4190	20020	No data available	No data available	No data available
Alcohol ethoxylate 84133-50-6	2100	5000	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms	Erythema (skin redness). May cause redness and tearing of the eyes. Burning sensation.
Effects of Exposure	None known.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

Hazardous combustion products Carbon oxides. Nitrogen oxides (NOx). Sulphur oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Keep out of drains, sewers, ditches and waterways. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off

contaminated clothing and wash it before reuse.

General hygiene considerations Wear protective gloves, eye protection and face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage class (TRGS 510) LGK 10.

7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	Austria (GKV BGBl. II Nr. 330/2024)	Belgium (Royal Decree 21/01/2020)	Bulgaria (Regulation No 13)	Croatia (Official Gazette No. 91/2018)
Triethanolamine 102-71-6	TWA-TMW: 0.8 ppm; TWA-TMW: 5 mg/m ³ ; inhalable fraction STEL-KZGW: 1.6 ppm (4 X 15 min); STEL-KZGW: 10 mg/m ³ (4 X 15 min); inhalable fraction S	TWA: 5 mg/m ³ ;	-	-
Chemical name	Cyprus (Cabinet of Ministers Regulation 268/2001)	Czech Republic (Regulation 361/2007)	Denmark (BEK no. 1619 of 19/12/2024)	Estonia (Regulation No. 105)
Citric acid 77-92-9	-	TWA: 4 mg/m ³ ; dust	-	-
Triethanolamine 102-71-6	-	TWA: 5 mg/m ³ ; Ceiling: 10 mg/m ³ ; pSk	TWA: 0.5 ppm; TWA: 3.1 mg/m ³ ; STEL: 1 ppm; STEL: 6.2 mg/m ³ ;	TWA: 5 mg/m ³ ; STEL: 10 mg/m ³ ; S
Chemical name	Finland (HTP-ARVOT 2025)	France (INRS ED 6443)	Germany (TRGS 900)	Germany (DFG)
Citric acid 77-92-9	-	-	TWA-AGW; 2 mg/m ³ (2(l)); inhalable fraction	TWA-MAK: 2 mg/m ³ ; l(2); inhalable fraction
Triethanolamine 102-71-6	TWA: 5 mg/m ³ ;	-	TWA-AGW; 1 mg/m ³ (1(l)); inhalable fraction	TWA-MAK: 1 mg/m ³ ; l(1); inhalable fraction
Chemical name	Greece (Presidential Decrees 90/1999, 338/2001 and 212/2006)	Hungary (5/2020 ITM Decree)	Italy (Legislative Decree no. 81)	Italy (AIDII)
Triethanolamine 102-71-6	-	-	-	TWA: 5 mg/m ³ ;
Chemical name	Ireland (CoP 2024)	Latvia (Cabinet of Ministers Regulation No. 325)	Lithuania (HN 23:2011)	Luxembourg (A-N°684)
Triethanolamine 102-71-6	TWA: 5 mg/m ³ ; STEL: 15	-	TWA-IPRD: 5 mg/m ³ ; STEL-TPRD: 10 mg/m ³ ;	-

	mg/m ³ (calculated);		S	
Chemical name	Malta (Subsidiary Legislation 424.24)	Netherlands (Working Conditions Regulations)	Norway (FOR-2011-12-06-1358)	Poland (Legislative Journal 2018 item 1286)
Triethanolamine 102-71-6	-	-	TWA: 5 mg/m ³ ; STEL: 10 mg/m ³ (value calculated);	-
Chemical name	Portugal (NP 1796:2014)	Romania (Government Decision no. 1218/2006)	Slovakia (Gov. Decree 122/2024)	Slovenia (Regulations 100/2001 and 29/2024)
Triethanolamine 102-71-6	TWA (VLE-MP): 5 mg/m ³ ;	-	-	-
Chemical name	Spain (Occupational exposure limits for chemical agents in Spain, 2025)	Sweden (AFS 2023:14)	Switzerland (MAK values)	United Kingdom
Citric acid 77-92-9	-	-	TWA-MAK: 2 mg/m ³ ; inhalable dust STEL-KZGW: 4 mg/m ³ ; inhalable dust	-
Triethanolamine 102-71-6	TWA-(VLA-ED): 5 mg/m ³ ;	TLV-NGV: 5 mg/m ³ ; TLV-NGV: 0.8 ppm; STEL (Vägledande KGV): 10 mg/m ³ ; STEL (Vägledande KGV): 1.6 ppm; Sk	TWA-MAK: 5 mg/m ³ ; inhalable dust STEL-KZGW: 5 mg/m ³ ; inhalable dust	-

Note See section 16 for terms and abbreviations

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Acetic acid, 2-hydroxy- 79-14-1	-	80.769 mg/kg bw/day [4] [6]	14.811 mg/m ³ [4] [6] 12.944 mg/m ³ [4] [7] 2.157 mg/m ³ [5] [6] 12.944 mg/m ³ [5] [7]
Triethanolamine 102-71-6	-	7.5 mg/kg bw/day [4] [6] 140 µg/cm ² [5] [6]	1 mg/m ³ [5] [6]

Notes

- [4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Acetic acid, 2-hydroxy- 79-14-1	0.75 mg/kg bw/day [4] [6]	28.85 mg/kg bw/day [4] [6]	2.61 mg/m ³ [4] [6] 2.3 mg/m ³ [4] [7] 0.383 mg/m ³ [5] [6] 2.3 mg/m ³ [5] [7]
Triethanolamine 102-71-6	3.3 mg/kg bw/day [4] [6]	2.66 mg/kg bw/day [4] [6] 70 µg/cm ² [5] [6]	0.4 mg/m ³ [5] [6]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Triethanolamine 102-71-6	0.32 mg/L	5.12 mg/L	0.032 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Acetic acid, 2-hydroxy- 79-14-1	-	-	2.67 mg/L	-	-
Triethanolamine 102-71-6	1.7 mg/kg sediment dw	0.17 mg/kg sediment dw	10 mg/L	0.151 mg/kg soil dw	-

8.2. Exposure controls**Engineering controls**

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection

Wear suitable gloves. Gloves must conform to standard EN 374.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers).

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls Avoid release to the environment.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Clear, olive colored liquid
Physical state	Liquid
Colour	Yellow to olive
Odour	No information available
Odour threshold	No information available

Property

Melting point / freezing point

Values**Remarks • Method**

No data available

Boiling point or initial boiling point and boiling range		No data available
Flammability		No data available
Lower and upper explosion limit/flammability limit		No data available
Lower explosion limit		No data available
Upper explosion limit		No data available
Flash point	> 200 °C	
Autoignition temperature		No data available
Decomposition temperature		No data available
SADT (°C)		No data available
pH	2.5	solution (1 %)
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility		No data available
Solubility	Soluble in water	
Partition coefficient n-octanol/water (log value)		No data available
Vapour pressure		No data available
Density and/or relative density		No data available
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

Molecular weight	No information available
VOC content	None
Softening point	No information available

9.2.1. Information with regards to physical hazard classes

Explosives

Explosive properties No information available

Oxidising properties

No information available

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Causes serious eye irritation. May cause redness, itching, and pain.
Skin contact	May cause slight irritation. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Erythema (skin redness). May cause redness and tearing of the eyes. Burning sensation.
Acute toxicity	Based on available data, the classification criteria are not met.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture:

ATEmix (oral)	3,763.10 mg/kg
ATEmix (dermal)	219,473.70 mg/kg
ATEmix (inhalation-vapour)	86.30 mg/L
ATEmix (inhalation-dust/mist)	28.20 mg/L

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Citric acid	= 3 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Acetic acid, 2-hydroxy-	= 1950 mg/kg (Rat)	-	> 5.2 mg/L (Rat) 4 h = 3.6 mg/L (Rat) 4 h
Triethanolamine	= 4190 mg/kg (Rat)	> 20000 mg/kg (Rabbit)	-
Alcohol ethoxylate	= 2100 mg/kg (Rat)	2000 - 5000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health	Based on available data, the classification criteria are not met.
--	---

11.2.2. Other information

Other adverse effects	No information available.
------------------------------	---------------------------

SECTION 12: Ecological information

<u>12.1. Toxicity</u>	Harmful to aquatic life.
------------------------------	--------------------------

Aquatic toxicity

Component Information

Chemical name	Fish	Crustacea	Algae/aquatic plants	Toxicity to microorganisms
Citric acid	LC50: =1516mg/L (96h, Lepomis macrochirus)	-	-	-
Acetic acid, 2-hydroxy-	LC50: >5000mg/L (96h, Brachydanio rerio)	-	-	-
Triethanolamine	LC50: 10600 - 13000mg/L (96h, Pimephales promelas) LC50: >1000mg/L (96h, Pimephales promelas) LC50: 450 - 1000mg/L (96h, Lepomis macrochirus)	-	EC50: =216mg/L (72h, Desmodesmus subspicatus) EC50: =169mg/L (96h, Desmodesmus subspicatus)	-
Alcohol ethoxylate	LC50: =3.2mg/L (96h, Pimephales promelas)	EC50: =3.2mg/L (48h, water flea)	-	-

<u>12.2. Persistence and degradability</u>	No information available.
---	---------------------------

12.3. Bioaccumulative potential

Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)	Trophic magnification factor (TMF)
Citric acid	-1.72	-	-
Acetic acid, 2-hydroxy-	0.3	-	-
Triethanolamine	-2.53	3.9	-

12.4. Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment This product does not contain any substances that are assessed to be a PBT or a vPvB.

Chemical name	PBT and vPvB assessment
Citric acid	Not PBT/vPvB
Acetic acid, 2-hydroxy-	Not PBT/vPvB
Triethanolamine	Not PBT/vPvB

12.6. Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IATA Not regulated

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

IMDG Not regulated

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user
Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

RID Not regulated
14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

ADR Not regulated
14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

ADN
14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not applicable
14.5 Environmental hazard Not applicable
14.6 Special precautions for user
Special Provisions None

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Triethanolamine 102-71-6	RG 49

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

Chemical Prohibition Ordinance (ChemVerbotsV) Not applicable.

TRGS 905 Not applicable

Switzerland

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Not applicable

Storage of Hazardous Material SC 10/12

WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Class B

Major Accidents Ordinance SR 814.012 Not applicable

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

Use restricted. See item: 3. 75.

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Citric acid 77-92-9	75	-

Persistent Organic Pollutants

Not applicable.

Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable.

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Product type	Approval status
Citric acid 77-92-9	2: Disinfectants and algaecides not intended for direct application to humans or animals 6: Preservatives for products during storage	Active substance (528/2012/EU)
Acetic acid, 2-hydroxy- 79-14-1	2: Disinfectants and algaecides not intended for direct application to humans or animals 3: Veterinary hygiene 4: Food and feed area	Supported Substances (1062/2014)

Explosives Precursors Marketing and Use (2019/1148)

Not applicable.

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P280 - Wear protective gloves
 P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
 P321 - Specific treatment (see supplemental first aid instructions on this label)
 P332 + P313 - If skin irritation occurs: Get medical advice and attention
 P362 + P364 - Take off contaminated clothing and wash it before reuse
 P280 - Wear protective gloves, protective clothing, eye protection and face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 - If eye irritation persists: Get medical advice and attention

Key or legend to abbreviations and acronyms used in the safety data sheet

List may include phrases which are not applicable to this product

ACGIH	American Conference of Governmental Industrial Hygienists
AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EINECS	European Inventory of Existing Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency
EWC	European Waste Codes
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
KKDIK	Turkish Inventory and Control of Chemicals

LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MAK	Maximum Concentration at the Workplace
MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labour and Social Policy
NDSL	Non-Domestic Substances List (Canada)
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
C	Carcinogen
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer
S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	On basis of test data
Serious eye damage/eye irritation	On basis of test data
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
U.S. Environmental Protection Agency
U.S. EPA Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
U.S. Hazardous Substance Data Bank (HSDB)
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
U.S. National Institute for Occupational Safety and Health (NIOSH)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

Limit Value Legal Basis

European Union (Directive 98/24/EC)	Council Directive 98/24/EC of April 7, 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended
European Union (Directive 2004/37/EC)	Directive 2004/37/EC of April 29, 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work, as amended
Austria (GKV BGBl. II Nr. 330/2024)	Ordinance on Limit Values for Workplace Substances and on Carcinogens, as amended by BGBl. II Nr. 330/2024, from the Federal Ministry of Economics and Labor
Austria (VGÜ 2008)	Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, as amended
Belgium (Royal Decree 21/01/2020)	Royal Decree of March 11, 2002 on the protection of workers' health against risks from chemical agents at work, as amended
Bulgaria (Regulation No 13)	Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards

	Related to Exposure to Chemical Agents at Work, as amended
Bulgaria (Regulation No 10)	Regulation No. 10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens, Mutagens or Substances Toxic to Reproduction at Work, as amended
Croatia (Official Gazette No. 91/2018)	Official Gazette No. 91/2018 on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values, as amended
Cyprus (Cabinet of Ministers Regulation 268/2001)	Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances), as amended
Cyprus (Cabinet of Ministers Regulation 153/2001)	Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended
Czech Republic (Regulation 361/2007)	Conditions for the Protection of the Health of Employees at Work, Government Regulation 361/2007, as amended
Czech Republic (Decree Nos. 181/2015 and 240/2015)	Decree 181/2015 and Decree 240/2015, amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests and requirements for reporting work with asbestos and biological agents
Denmark (BEK no. 1619 of 19/12/2024)	Statutory Order No. 507, Order on Limit Values for Substances and Materials, as amended by BEK no. 1619 of 19/12/2024
Estonia (Regulation No. 105)	Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents, Regulation No. 105 of March 20, 2001, as amended
Finland (HTP-ARVOT 2025)	Regulation on Concentrations Known to be Hazardous, 55/2025, Publications of Ministry of Social Affairs and Health
France (INRS ED 6443)	Occupational Exposure Limit Values, ED 6443, Published 2021 by the INRS (the National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases), as amended
France (Decree 2009-157)	Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces
Germany TRGS	TRGS 900 - Occupational Exposure Limits, Technical Rules for Dangerous Substances, 2025
Germany (TRGS 903)	Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, 2025
Germany (DFG)	MAK and BAT values of Hazardous Chemical Compounds in the Work Area, published by the German Research Foundation on July 1, 2025
Greece (Presidential Decree 90/1999)	Presidential Decree 90/1999, Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, as amended
Greece (Presidential Decree 212/2006)	Presidential Decree 212/2006, Protection of workers that are exposed to asbestos
Greece (Presidential Decree 338/2001)	Presidential Decree 338/2001, Protection of workers' health and safety from exposure to certain chemical substances during the workday
Hungary (5/2020 ITM Decree)	5/2020. (II. 6.) Ministry of Innovation and Technology decree on the protection of the health and safety of workers from the risks related to chemical agents, as amended
Ireland (CoP 2024)	2024 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2021) & the Safety, Health and Welfare at Work (Carcinogens, Mutagens and Reprotoxic Substances) Regulations (2024)
Italy (Legislative Decree no. 81)	Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Legislative Decree no. 81 of April 9, 2008, as amended
Italy (AIDII)	Final Note (1), Ministerial Decree of August 20, 1999 by the Ministry of Health along with the Ministry of Industry, Trade, and Arts
Latvia (Cabinet of Ministers Regulation No. 325)	Cabinet of Ministers Regulation No. 325 of 2007 - Labor Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, as amended
Lithuania (HN 23:2011)	Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure limit values for chemical substances - General requirements of measurement and impact assessment, as amended
Luxembourg (A-N°684)	Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace, A-N°684 of 2018
Malta (Subsidiary Legislation 424.24)	Malta Occupational Health and Safety Authority Act: Chapter 424 - Protection of the health

	and safety of workers from the risks related to chemical agents at work, as amended
Netherlands (Working Conditions Regulations)	Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XIII, as amended
Norway (FOR-2011-12-06-1358)	Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, as amended
Poland (Legislative Journal 2018 item 1286)	Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment, as amended
Portugal (NP 1796:2014)	Portuguese Norm NP 1796:2014, Occupational exposure limits and biological exposure indices to chemical agents, Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs)
Romania (Government Decision no. 1218/2006)	Governmental Decision No. 1218 from September 6, 2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents
Slovakia (Gov. Decree 122/2024)	Government Decree of Slovak Republic 122/2024 of May 22, 2024 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents
Slovenia (Regulation No 100/2001)	Regulation for protection of workers against risks related to exposure to chemical substances at the workplace, Annexes I and II, the Official Gazette of the Republic of Slovenia, No. 100/2001, as amended
Slovenia (Regulation No 29/2024)	Regulation for protection of workers against risks related to carcinogenic, mutagenic or reprotoxic substances exposure at work, Annex III, The Official Journal of the Republic of Slovenia, No. 29/2024, as amended
Spain (Occupational exposure limits for chemical agents in Spain, 2025)	National Institute for Safety and Health at Work (INSST) - Occupational exposure limits for chemical agents in Spain, 2025, Tables 1 and 3
Sweden (AFS 2023:14)	The Swedish Work Environment Authority's Regulations and General Advice on Respiratory limit values in the work Environment
Switzerland (MAK values)	Occupational Limit Values 2025, Swiss National Accident Insurance Fund, List of MAK Values
Switzerland (BAT values)	Occupational Limit Values 2025, Swiss National Accident Insurance Fund, List of Biological Limit Values

Issuing Date 20-Jun-2023

Revision date 24-Apr-2026

Revision Note Change in classification. SDS sections updated: 1, 2, 3, 4, 11, 12, 16.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet