

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

1.1. Product identifier

Product form : Mixture
Trade name : Tornax-S
Product code : 11
Type of product : Acidic cleaner
Product group : Cleaning product

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : See product bulletin for detailed information.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

CID LINES NV
Waterpoortstraat, 2
B-8900 Ieper - Belgique
T + 32 57 21 78 77 - F +32 57 21 78 79
sds@cidlines.com - <http://www.cidlines.com>

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	Poisons Information Centre		13 11 26	
New Zealand	The National Poisons Centre	University of Otago, 2nd Floor, Adams Building, 18 Frederick Street, 9016 Dunedin	0800 764 766 0800 POISON	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
USA	American Association of Poison Control Centers		1-800-222-1222	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1B H314
Serious eye damage/eye irritation, Category 1 H318
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.

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According to Regulation (EU) 2015/830 (REACH Annex II)

Precautionary statements (CLP)

: P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 - IF INHALED Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment is urgent.
P303 - IF ON SKIN (or hair) Remove immediately all contaminated clothing. Wash with plenty of soap and water.
P305 - IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Specific treatment.
P301+P330+P331+P310+P321 - IF SWALLOWED Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 15-011-00-6 (REACH-no) 01-2119485924-24	20 - 40	Skin Corr. 1B, H314
Guerbetalcohol, 6-8 EO	(CAS-No.) 160875-66-1 (REACH-no) 02-2119552461-55	5 - 15	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
2-(2-butoxyethoxy)ethanol	(CAS-No.) 112-34-5 (EC-No.) 203-961-6 (EC Index-No.) 603-096-00-8 (REACH-no) 01-2119475104-44	1 - 5	Eye Irrit. 2, H319
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides,	(CAS-No.) 308062-28-4 (EC-No.) 931-292-6 (REACH-no) 01-2119490061-47	1 - 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 15-011-00-6 (REACH-no) 01-2119485924-24	(10 =<C < 25) Skin Irrit. 2, H315 (10 =<C < 25) Eye Irrit. 2, H319 (25 =<C < 100) Skin Corr. 1B, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest. Seek medical attention immediately.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical advice (show the label where possible).

First-aid measures after eye contact : Rinse immediately with plenty of water. Seek medical attention immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting because of corrosive effects. Take to hospital.

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

Symptoms/effects after inhalation : Inhalation of vapour can cause breathing difficulties. Cough. Sore throat.

Symptoms/effects after skin contact : Redness, pain. Causes severe skin burns and eye damage.

Symptoms/effects after eye contact : Redness, pain. Blurred vision. Tears. Serious damage to eyes.

Symptoms/effects after ingestion : Burning sensation. Cough. Cramps. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard.

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

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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According to Regulation (EU) 2015/830 (REACH Annex II)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO₂). Dry chemical. Foam. Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.
Explosion hazard : Not expected to be a fire/explosion hazard under normal conditions of use.
Reactivity in case of fire : Corrosive vapours.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Corrosive vapours.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire. Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flammable resistant/retardant clothing. Heat resistant gloves.
Firefighting instructions : Use water spray or fog for cooling exposed containers.
Protection during firefighting : Wear proper protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Clean up any spills as soon as possible, using an absorbent material to collect it.
Methods for cleaning up : Clean contaminated surfaces with an excess of water.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : When handling product, avoid contact with skin and eyes. Wear personal protective equipment. Do not breathe vapour/aerosol. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from freezing. Keep at temperature not exceeding 50 °C. Keep container closed when not in use.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)		
EU	Local name	Orthophosphoric acid
EU	IOELV TWA (mg/m ³)	1 mg/m ³
EU	IOELV STEL (mg/m ³)	2 mg/m ³
EU	Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Germany	TRGS 910 Acceptable concentration notes	
United Kingdom	Local name	Orthophosphoric acid
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

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According to Regulation (EU) 2015/830 (REACH Annex II)

2-(2-butoxyethoxy)ethanol (112-34-5)		
EU	Local name	2-(2-Butoxyethoxy)ethanol
EU	IOELV TWA (mg/m³)	67.5 mg/m³
EU	IOELV TWA (ppm)	10 ppm
EU	IOELV STEL (mg/m³)	101.2 mg/m³
EU	IOELV STEL (ppm)	15 ppm
EU	Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Germany	TRGS 910 Acceptable concentration notes	
United Kingdom	Local name	2-(2-Butoxyethoxy)ethanol
United Kingdom	WEL TWA (mg/m³)	67.5 mg/m³
United Kingdom	WEL TWA (ppm)	10 ppm
United Kingdom	WEL STEL (mg/m³)	101.2 mg/m³
United Kingdom	WEL STEL (ppm)	15 ppm
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Phosphoric acid (7664-38-2)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation	2 mg/m³	
Long-term - local effects, inhalation	1 mg/m³	
DNEL/DMEL (General population)		
Long-term - local effects, inhalation	0.73 mg/m³	
2-(2-butoxyethoxy)ethanol (112-34-5)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation	101.2 mg/m³	
Long-term - systemic effects, dermal	20 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	67.5 mg/m³	
Long-term - local effects, inhalation	67.5 mg/m³	
DNEL/DMEL (General population)		
Acute - local effects, inhalation	50.6 mg/m³	
Long-term - systemic effects, oral	1.25 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	34 mg/m³	
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day	
Long-term - local effects, inhalation	34 mg/m³	
PNEC (Water)		
PNEC aqua (freshwater)	1 mg/l Assessment factor: 100	
PNEC aqua (marine water)	0.1 mg/l Assessment factor: 1000	
PNEC aqua (intermittent, freshwater)	3.9 mg/l Assessment factor: 100	
PNEC (Sediment)		
PNEC sediment (freshwater)	4 mg/kg dwt	
PNEC sediment (marine water)	0.4 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.4 mg/kg dwt	
PNEC (Oral)		
PNEC oral (secondary poisoning)	0.000056 kg/kg food Assessment factor: 90	
PNEC (STP)		
PNEC sewage treatment plant	200 mg/l Assessment factor: 10	

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8.2. Exposure controls

Materials for protective clothing:					
Condition		Material		Standard	
Good resistance:				EN14605:2005+A1:2009	
Hand protection:					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5	2 (< 1.5)	EN ISO 374
Eye protection:					
Type		Use	Characteristics		Standard
Safety glasses, Safety goggles, Face shield		Droplet	clear, Plastic		EN 166
Skin and body protection:					
Type			Standard		
			EN14605:2005+A1:2009		
Respiratory protection:					
Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material					

Personal protective equipment symbol(s):



Other information:

When using do not eat, drink or smoke. Provide local exhaust or general room ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless to slightly yellow.
Odour	: acid.
Odour threshold	: No data available
pH	: 2.2 (1%)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: < -20 °C
Boiling point	: 100 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: ≈ 1.22 kg/l
Solubility	: Water: 100 %
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

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According to Regulation (EU) 2015/830 (REACH Annex II)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong alkalis.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

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LD50 oral rat	> 2000 mg/kg
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Guerbetalcohol, 6-8 EO (160875-66-1)

LD50 oral rat	> 500 mg/kg
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Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 2.2 (1%)

Serious eye damage/irritation : Causes serious eye damage.
pH: 2.2 (1%)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Guerbetalcohol, 6-8 EO (160875-66-1)

EC50 Daphnia 1	> 10 - 100 mg/l 48h
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EC50 other aquatic organisms 1	> 10 - 100 mg/l 72h
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12.2. Persistence and degradability

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Persistence and degradability	The surfactant contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.
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12.3. Bioaccumulative potential

Phosphoric acid (7664-38-2)

Log Kow	-1.436
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According to Regulation (EU) 2015/830 (REACH Annex II)

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides, (308062-28-4)

Log Kow 2.7

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
Waste treatment methods	: Dispose of this material and its container at hazardous or special waste collection point. Hazardous waste due to toxicity. Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: When totally empty, containers are recyclable like any other packing. Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
European List of Waste (LoW) code	: 07 06 01* - aqueous washing liquids and mother liquors

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: UN 3264
UN-No. (IMDG)	: UN 3264
UN-No. (IATA)	: UN 3264
UN-No. (ADN)	: UN 3264
UN-No. (RID)	: UN 3264

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.)
Proper Shipping Name (IMDG)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.)
Proper Shipping Name (IATA)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.)
Proper Shipping Name (ADN)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.)
Proper Shipping Name (RID)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.)
Transport document description (ADR)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.), 8, III, (E)
Transport document description (IMDG)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.), 8, III
Transport document description (IATA)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.), 8, III
Transport document description (ADN)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.), 8, III
Transport document description (RID)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid.), 8, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8



IMDG

Transport hazard class(es) (IMDG)	: 8
Danger labels (IMDG)	: 8

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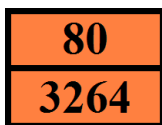
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According to Regulation (EU) 2015/830 (REACH Annex II)

Special provisions for carriage - Packages (ADR) : V12

Hazard identification number (Kemler No.) : 80

Orange plates :



Tunnel restriction code (ADR) : E

EAC code : 2X

APP code : B

Transport by sea

Special provisions (IMDG) : 223, 274

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : P001, LP01

IBC packing instructions (IMDG) : IBC03

Tank instructions (IMDG) : T7

Tank special provisions (IMDG) : TP1, TP28

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-B

Stowage category (IMDG) : A

Stowage and handling (IMDG) : SW2

MFAG-No : 154

Air transport

PCA Excepted quantities (IATA) : E1

PCA Limited quantities (IATA) : Y841

PCA limited quantity max net quantity (IATA) : 1L

PCA packing instructions (IATA) : 852

PCA max net quantity (IATA) : 5L

CAO packing instructions (IATA) : 856

CAO max net quantity (IATA) : 60L

Special provisions (IATA) : A3

ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C1

Special provisions (ADN) : 274

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C1

Special provisions (RID) : 274

Limited quantities (RID) : 5L

Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Mixed packing provisions (RID) : MP19

Portable tank and bulk container instructions (RID) : T7

Portable tank and bulk container special provisions (RID) : TP1, TP28

Tank codes for RID tanks (RID) : L4BN

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Colis express (express parcels) (RID) : CE8

Hazard identification number (RID) : 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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According to Regulation (EU) 2015/830 (REACH Annex II)

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

Other information, restriction and prohibition regulations

: Ensure all national/local regulations are observed. PIC Regulation EU (649/2012) - Export and Import of hazardous chemicals. Article 17 - paragraph n°1. - Chemicals that are intended for export shall be subject to the provisions on packaging and labelling established in, or pursuant to, Regulation (EC) No 1107/2009, Directive 98/8/EC and Regulation (EC) No 1272/2008, or any other relevant Union legislation.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Other information

: DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
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.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

SDSCLP3

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.