Safety Data Sheet

According to 1907/2006, article 31 as amended

uriSTRONG

Nummer der Fassung: GHS 3.0

Überarbeitet am: **20.06.2024**

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

1.1 Product identifier

Trade name	**uriSTRONG**
Registration number (REACH)	not relevant (mixture)
Unique formula identifier (UFI)	8REY-72WG-KD9J-HRYV

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

Relevant identified uses	Cleaning agent

1.3 Details of the supplier of the safety data sheet

uridan waterless solutions GmbH

Sandfeld 5,

A-2100 Stetten

Austria

1.4 Emergency telephone number

Poison centre

Country	Name	Postal code/city	Telephone
United Kingdom	Guy's & St Thomas' Poisons Unit	London	0870 243 2241
United Kingdom	National Poisons Information Service (Belfast Centre)	Belfast	0870 600 6266 (UK only)
United Kingdom	National Poisons Information Service (Cardiff Centre)	Cardiff	0870 600 6266 (UK only)
United Kingdom	Scottish Poisons Information Bureau	Edinburgh	0870 600 6266 (UK only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
2.16	substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
3.2	skin corrosion/irritation	1	Skin Corr. 1	H314
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

2.2 Label elements

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

- Signal word danger

- Pictograms

GHS05, GHS07

- Hazard statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

- Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P390	Absorb spillage to prevent material damage.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling Hydrochloric acid, Phosphoric acid, Ammonium hydrogen difluoride, Isotridecanol, ethoxylated

2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Specific Conc. Limits
2-Hydroxypropane-1,2,3-tricarboxylic acid	CAS No 5949-29-1 EC No 201-069-1 REACH Reg. No 01-2119457026-42	5 – < 10	Eye Irrit. 2 / H319		
Hydrochloric acid	CAS No 7647-01-0 EC No 231-595-7 Index No 017-002-01-X REACH Reg. No 01-2119484862-27	5 – < 10	Met. Corr. 1 / H290 Skin Corr. 1B / H314 Eye Dam. 1 / H318 STOT SE 3 / H335		Met. Corr. 1; H290: C ≥ 0.1 % Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; H335: C ≥ 10 %
Phosphoric acid	CAS No 7664-38-2 EC No 231-633-2 Index No 015-011-00-6 REACH Reg. No 01-2119485924-24	5 – < 10	Met. Corr. 1 / H290 Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318		Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %
1,2-Ethanediol	CAS No 107-21-1 EC No 203-473-3 Index No 603-027-00-1 REACH Reg. No 01-2119456816-28	5 – < 10	Acute Tox. 4 / H302 STOT RE 2 / H373		

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Specific Conc. Limits
2-Butoxyethanol	CAS No 111-76-2 EC No 203-905-0 Index No 603-014-00-0 REACH Reg. No 01-2119475108-36	5 – < 10	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319		
2-(2-Butoxyethoxy)ethanol	CAS No 112-34-5 EC No 203-961-6 Index No 603-096-00-8 REACH Reg. No 01-2119475104-44	1 – < 5	Eye Irrit. 2 / H319		
Isotridecanol, ethoxylated	CAS No 69011-36-5 EC No 931-138-8	1 – < 5	Acute Tox. 4 / H302 Eye Dam. 1 / H318	 	
Alcohols, C9-11 iso, C10 rich, ethoxylated, propoxylated	CAS No 154518-36-2	1 – < 5	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Aquatic Chronic 3 / H412		
Ammonium hydrogen difluoride	CAS No 1341-49-7 EC No 215-676-4 Index No 009-009-00-4 REACH Reg. No 01-2119489180-38	1 – < 5	Acute Tox. 3 / H301 Skin Corr. 1B / H314 Eye Dam. 1 / H318	 	Skin Corr. 1B; H314: C ≥ 1 % Skin Irrit. 2; H315: 0.1 % ≤ C < 1 % Eye Dam. 1; H318: C ≥ 1 % Eye Irrit. 2; H319: 0.1 % ≤ C < 1 %

For full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Self-protection of the first aider.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

Following ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Foam, Fire extinguishing powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Substance or mixture corrosive to metals.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2), Phosphorus oxides (PxOy), Hydrogen fluoride (HF)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Chemical protective clothing, Wear self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Provision of sufficient ventilation. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Removal of ignition sources.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Neutralisation techniques. Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Keep container tightly closed. Use local and general ventilation. Use only in well-ventilated areas.

- Handling of incompatible substances or mixtures

Do not mix with alkali.

- Keep away from

Caustic solutions, Oxidisers

Advice on general occupational hygiene

Take off immediately all contaminated clothing. Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs. Do not breathe gas/vapour/spray. Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

- Incompatible substances or mixtures

- Do not mix with

Caustic solutions, Oxidisers

- Evaporative conditions

Store in a closed container.

Control of effects

Protect against external exposure, such as

Heat, UV-radiation/sunlight

- Specific designs for storage rooms or vessels

Provide acid-resistant floor.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
EU	ethylene glycol	107-21-1	IOELV	20	52	40	104				2000/39/EC
EU	2-butoxyethanol	111-76-2	IOELV	20	98	50	246				2000/39/EC
EU	2-(2-butoxyethoxy)ethanol	112-34-5	IOELV	10	67.5	15	101.2				2006/15/EC
EU	hydrogen chloride	7647-01-0	IOELV	5	8	10	15				2000/39/EC
EU	orthophosphoric acid	7664-38-2	IOELV		1		2				2000/39/EC
GB	ethane-1,2-diol	107-21-1	WEL		10					particle	EH40/2005
GB	ethane-1,2-diol	107-21-1	WEL	20	52	40	104			vap	EH40/2005
GB	2-butoxyethanol	111-76-2	WEL	25	123	50	246				EH40/2005
GB	2-(2-butoxyethoxy)ethanol	112-34-5	WEL	10	67.5	15	101.2				EH40/2005
GB	hydrogen chloride	7647-01-0	WEL	1	2	5	8			ga	EH40/2005
GB	orthophosphoric acid	7664-38-2	WEL		1		2				EH40/2005

Notation	
Ceiling-C	ceiling value is a limit value above which exposure should not occur
ga	as gases and aerosols
particle	as airborne particles
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)
vap	as vapours

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
GB	2-butoxyethanol	2-butoxyacetic acid	crea	BMGV	240 mmol/mol	EH40/2005

Notation	
crea	creatinine

Human health values

Relevant DNELs of components of the mixture

Name of substance	CAS No	EC No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Hydrochloric acid	7647-01-0	231-595-7	DNEL	8 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
Hydrochloric acid	7647-01-0	231-595-7	DNEL	15 mg/m³	human, inhalatory	worker (industry)	acute - local effects
Hydrochloric acid	7647-01-0	231-595-7	DNEL	8 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects
Hydrochloric acid	7647-01-0	231-595-7	DNEL	15 mg/m³	human, inhalatory	consumer (private households)	acute - local effects
Phosphoric acid	7664-38-2	231-633-2	DNEL	10.7 mg/cm³	human, inhalatory	worker (industry)	chronic - systemic effects
Phosphoric acid	7664-38-2	231-633-2	DNEL	1 mg/cm³	human, inhalatory	worker (industry)	chronic - local effects
Phosphoric acid	7664-38-2	231-633-2	DNEL	4.57 mg/cm³	human, inhalatory	consumer (private households)	chronic - systemic effects
Phosphoric acid	7664-38-2	231-633-2	DNEL	0.36 mg/cm³	human, inhalatory	consumer (private households)	chronic - local effects
Phosphoric acid	7664-38-2	231-633-2	DNEL	0.1 mg/cm³	human, oral	consumer (private households)	chronic - systemic effects
1,2-Ethanediol	107-21-1	203-473-3	DNEL	35 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
1,2-Ethanediol	107-21-1	203-473-3	DNEL	106 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	EC No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
1,2-Ethanediol	107-21-1	203-473-3	DNEL	7 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects
1,2-Ethanediol	107-21-1	203-473-3	DNEL	53 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	98 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	1,091 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	246 mg/m³	human, inhalatory	worker (industry)	acute - local effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	125 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	89 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	59 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	426 mg/m³	human, inhalatory	consumer (private households)	acute - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	75 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	147 mg/m³	human, inhalatory	consumer (private households)	acute - local effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	89 mg/kg bw/day	human, dermal	consumer (private households)	acute - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	6.3 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
2-Butoxyethanol	111-76-2	203-905-0	DNEL	26.7 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	DNEL	67.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	DNEL	67.5 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	DNEL	101.2 mg/m³	human, inhalatory	worker (industry)	acute - local effects
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	DNEL	83 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	EC No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2-(2-But-oxyethoxy) ethanol	112-34-5	203-961-6	DNEL	40.5 mg/m³	human, inhal-atory	consumer (private house-holds)	chronic - sys-temic effects
2-(2-But-oxyethoxy) ethanol	112-34-5	203-961-6	DNEL	40.5 mg/m³	human, inhal-atory	consumer (private house-holds)	chronic - local effects
2-(2-But-oxyethoxy) ethanol	112-34-5	203-961-6	DNEL	60.7 mg/m³	human, inhal-atory	consumer (private house-holds)	acute - local ef-fects
2-(2-But-oxyethoxy) ethanol	112-34-5	203-961-6	DNEL	50 mg/kg bw/day	human, dermal	consumer (private house-holds)	chronic - sys-temic effects
2-(2-But-oxyethoxy) ethanol	112-34-5	203-961-6	DNEL	5 mg/kg bw/day	human, oral	consumer (private house-holds)	chronic - sys-temic effects
Isotri-decanol, ethoxylated	69011-36-5	931-138-8	DNEL	294 mg/m³	human, inhal-atory	worker (in-dustry)	chronic - sys-temic effects
Isotri-decanol, ethoxylated	69011-36-5	931-138-8	DNEL	2,080 mg/kg bw/day	human, dermal	worker (in-dustry)	chronic - sys-temic effects
Isotri-decanol, ethoxylated	69011-36-5	931-138-8	DNEL	1,250 mg/kg bw/day	human, dermal	consumer (private house-holds)	chronic - sys-temic effects
Isotri-decanol, ethoxylated	69011-36-5	931-138-8	DNEL	87 mg/m³	human, inhal-atory	consumer (private house-holds)	chronic - sys-temic effects
Isotri-decanol, ethoxylated	69011-36-5	931-138-8	DNEL	25 mg/kg bw/day	human, oral	consumer (private house-holds)	chronic - sys-temic effects
Ammoni-um hydro-gen difluor-ide	1341-49-7	215-676-4	DNEL	2.3 mg/m³	human, inhal-atory	worker (in-dustry)	chronic - sys-temic effects
Ammoni-um hydro-gen difluor-ide	1341-49-7	215-676-4	DNEL	3.8 mg/m³	human, inhal-atory	worker (in-dustry)	acute - local ef-fects
Ammoni-um hydro-gen difluor-ide	1341-49-7	215-676-4	DNEL	0.045 mg/m³	human, inhal-atory	consumer (private house-holds)	chronic - sys-temic effects
Ammoni-um hydro-gen difluor-ide	1341-49-7	215-676-4	DNEL	0.015 mg/kg bw/day	human, oral	consumer (private house-holds)	chronic - sys-temic effects

Environmental values

Relevant PNECs of components of the mixture

Name of substance	CAS No	EC No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	201-069-1	PNEC	0.44 mg/l	aquatic organisms	freshwater	short-term (single instance)
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	201-069-1	PNEC	0.044 mg/l	aquatic organisms	marine water	short-term (single instance)
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	201-069-1	PNEC	1,000 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	201-069-1	PNEC	34.6 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	201-069-1	PNEC	3.46 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	201-069-1	PNEC	33.1 mg/kg	terrestrial organisms	soil	short-term (single instance)
1,2-Ethanediol	107-21-1	203-473-3	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
1,2-Ethanediol	107-21-1	203-473-3	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
1,2-Ethanediol	107-21-1	203-473-3	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
1,2-Ethanediol	107-21-1	203-473-3	PNEC	37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
1,2-Ethanediol	107-21-1	203-473-3	PNEC	3.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
1,2-Ethanediol	107-21-1	203-473-3	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)
2-Butoxyethanol	111-76-2	203-905-0	PNEC	8.8 mg/l	aquatic organisms	freshwater	short-term (single instance)

Relevant PNECs of components of the mixture

Name of substance	CAS No	EC No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
2-Butoxyethanol	111-76-2	203-905-0	PNEC	34.6 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-Butoxyethanol	111-76-2	203-905-0	PNEC	2.33 mg/kg	terrestrial organisms	soil	short-term (single instance)
2-Butoxyethanol	111-76-2	203-905-0	PNEC	0.88 mg/l	aquatic organisms	marine water	short-term (single instance)
2-Butoxyethanol	111-76-2	203-905-0	PNEC	463 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	PNEC	1.1 mg/l	aquatic organisms	freshwater	short-term (single instance)
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	PNEC	0.11 mg/l	aquatic organisms	marine water	short-term (single instance)
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	PNEC	200 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	PNEC	4.4 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	PNEC	0.44 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	PNEC	0.32 mg/kg	terrestrial organisms	soil	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	0.074 mg/l	aquatic organisms	freshwater	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	0.007 mg/l	aquatic organisms	marine water	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	0.015 mg/l	aquatic organisms	water	intermittent release
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	1.4 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	0.06 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	0.604 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)

Relevant PNECs of components of the mixture

Name of substance	CAS No	EC No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Isotridecanol, ethoxylated	69011-36-5	931-138-8	PNEC	0.1 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)
Ammonium hydrogen difluoride	1341-49-7	215-676-4	PNEC	1.3 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
Ammonium hydrogen difluoride	1341-49-7	215-676-4	PNEC	76 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Ammonium hydrogen difluoride	1341-49-7	215-676-4	PNEC	22 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Personal protective equipment must comply with Regulation (EU) 425/2016. Other national regulations must be observed. The standards listed below are minimum standards. The user must check whether additional standards must be complied with.

Eye/face protection

Use safety goggle with side protection. (EN 166).

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Type of material

PVC: polyvinyl chloride

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling. Protective clothing against liquid chemicals. Footwear protecting against chemicals.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Full face mask (DIN EN 136). Type: ABEK (combined filters against gases and vapours, colour code: Brown/Grey/Yellow/Green).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Colour	colourless
Odour	characteristic

Other safety parameters

pH (value)	0.5 – 1.5 (acid)
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapour pressure	not determined
Density	1.14 $^{g}/_{cm^3}$ at 20 °C
Vapour density	this information is not available

Solubility(ies)

- Water solubility	miscible in any proportion

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	210 °C
Viscosity	not determined
Explosive properties	none
Oxidising properties	none

9.2	**Other information**	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". Substance or mixture corrosive to metals.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

Reacts with alkali (lyes).

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Bases, Oxidisers

Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Harmful if swallowed.

Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	oral	LD50	5,400 $^{mg}/_{kg}$	mouse
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	dermal	LD50	>2,000 $^{mg}/_{kg}$	rat
Phosphoric acid	7664-38-2	oral	LD50	>300 – 2,000 $^{mg}/_{kg}$	rat
1,2-Ethanediol	107-21-1	oral	LD50	7,712 $^{mg}/_{kg}$	rat
1,2-Ethanediol	107-21-1	dermal	LD50	>3,500 $^{mg}/_{kg}$	mouse
2-Butoxyethanol	111-76-2	oral	LD50	1,746 $^{mg}/_{kg}$	rat
2-Butoxyethanol	111-76-2	dermal	LD50	>2,000 $^{mg}/_{kg}$	guinea pig

Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
2-Butoxyethanol	111-76-2	inhalation: vapour	LC50	2.1 – 20 $^{mg}/_{l}$/ 4h	rat
2-(2-Butoxyethoxy)ethanol	112-34-5	oral	LD50	2,410 $^{mg}/_{kg}$	mouse
2-(2-Butoxyethoxy)ethanol	112-34-5	dermal	LD50	2,764 $^{mg}/_{kg}$	rabbit
Isotridecanol, ethoxylated	69011-36-5	oral	LD50	>2,000 $^{mg}/_{kg}$	rat
Alcohols, C9-11 iso, C10 rich, ethoxylated, propoxylated	154518-36-2	oral	LD50	>300 – 2,000 $^{mg}/_{kg}$	rat
Ammonium hydrogen difluoride	1341-49-7	oral	LD50	130 $^{mg}/_{kg}$	rat

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	LC50	440 $^{mg}/_{l}$	fish	48 h
Phosphoric acid	7664-38-2	EC50	>100 $^{mg}/_{l}$	aquatic invertebrates	48 h

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Phosphoric acid	7664-38-2	ErC50	>100 mg/l	algae	72 h
Phosphoric acid	7664-38-2	NOEC	56 mg/l	aquatic invertebrates	48 h
1,2-Ethanediol	107-21-1	LC50	72,860 mg/l	fish	96 h
1,2-Ethanediol	107-21-1	EC50	>100 mg/l	aquatic invertebrates	48 h
2-Butoxyethanol	111-76-2	LC50	1,474 mg/l	fish	96 h
2-Butoxyethanol	111-76-2	EC50	1,550 mg/l	aquatic invertebrates	48 h
2-Butoxyethanol	111-76-2	EC50	911 mg/l	algae	72 h
2-Butoxyethanol	111-76-2	ErC50	1,840 mg/l	algae	72 h
2-Butoxyethanol	111-76-2	NOEC	88 mg/l	algae	72 h
2-Butoxyethanol	111-76-2	growth (EbCx) 10%	308 mg/l	algae	72 h
2-Butoxyethanol	111-76-2	growth rate (ErCx) 10%	679 mg/l	algae	72 h
2-(2-Butoxyethoxy)ethanol	112-34-5	LC50	1,300 mg/l	fish	96 h
2-(2-Butoxyethoxy)ethanol	112-34-5	EC50	>100 mg/l	aquatic invertebrates	48 h
2-(2-Butoxyethoxy)ethanol	112-34-5	EC50	>100 mg/l	algae	96 h
2-(2-Butoxyethoxy)ethanol	112-34-5	ErC50	>100 mg/l	algae	96 h
2-(2-Butoxyethoxy)ethanol	112-34-5	NOEC	100 mg/l	aquatic invertebrates	48 h
2-(2-Butoxyethoxy)ethanol	112-34-5	NOEC	100 mg/l	algae	96 h
Alcohols, C9-11 iso, C10 rich, ethoxylated, propoxylated	154518-36-2	EC50	>1 – 10 mg/l	daphnia magna	48 h
Alcohols, C9-11 iso, C10 rich, ethoxylated, propoxylated	154518-36-2	EC50	>1 – 10 mg/l	orfe (Leuciscus idus)	96 h
Ammonium hydrogen difluoride	1341-49-7	EC50	26 – 48 mg/l	daphnia magna	96 h
Ammonium hydrogen difluoride	1341-49-7	LC50	421.4 mg/l	fish	96 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	LC50	1,535 mg/l	aquatic invertebrates	24 h
Phosphoric acid	7664-38-2	EC50	>1,000 mg/l	microorganisms	3 h
Phosphoric acid	7664-38-2	NOEC	1,000 mg/l	microorganisms	3 h
2-Butoxyethanol	111-76-2	EC50	297 mg/l	aquatic invertebrates	21 d
2-Butoxyethanol	111-76-2	NOEC	>100 mg/l	fish	21 d
2-Butoxyethanol	111-76-2	NOEC	100 mg/l	aquatic invertebrates	21 d
2-Butoxyethanol	111-76-2	growth (EbCx) 10%	134 mg/l	aquatic invertebrates	21 d
2-(2-Butoxyethoxy)ethanol	112-34-5	growth (EbCx) 10%	>1,995 mg/l	microorganisms	30 min
Alcohols, C9-11 iso, C10 rich, ethoxylated, propoxylated	154518-36-2	NOEC	>0.1 – 1 mg/l	daphnia magna	21 d

Biodegradation

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

12.2 Persistence and degradability

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
2-Hydroxypropane-1,2,3-tricarboxylic acid	5949-29-1	carbon dioxide generation	97 %	28 d		
1,2-Ethanediol	107-21-1	DOC removal	90 – 100 %	10 d		
2-Butoxyethanol	111-76-2	carbon dioxide generation	>90 %	28 d		
2-(2-Butoxyethoxy)ethanol	112-34-5	oxygen depletion	85 %	28 d		
Isotridecanol, ethoxylated	69011-36-5	DOC removal	82 %	28 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Endocrine disrupting potential

None of the ingredients are listed.

Remarks

Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Waste treatment-relevant information

Regeneration of acids.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes

Disposal code numbers according to the European Waste Catalogue are defined according to origin of the waste. As this product is used in several branches of industry, no disposal code number can be specified by the manufacturer. The waste code number must be determined in consultation with the disposal company or the competent authority.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	**UN number**	1760
14.2	**UN proper shipping name**	CORROSIVE LIQUID, N.O.S.
	Technical name (hazardous ingredients)	Phosphoric acid, Hydrochloric acid
14.3	**Transport hazard class(es)**	
	Class	8 (corrosive substances)
14.4	**Packing group**	III (substance presenting low danger)
14.5	**Environmental hazards**	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

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

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	1760
Proper shipping name	CORROSIVE LIQUID, N.O.S.
- Particulars in the transport document	UN1760, CORROSIVE LIQUID, N.O.S., (Phosphoric acid, Hydrochloric acid, solution), 8, III, (E)
Class	8
Classification code	C9
Packing group	III
Danger label(s)	8

Special provisions (SP)	274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Tunnel restriction code (TRC)	E
Hazard identification No	80
Emergency Action Code	2X

International Maritime Dangerous Goods Code (IMDG)

UN number	1760
Proper shipping name	CORROSIVE LIQUID, N.O.S.
- Particulars in the shipper's declaration	UN1760, CORROSIVE LIQUID, N.O.S., (Phosphoric acid, Hydrochloric acid, solution), 8, III
Class	8
Marine pollutant	-
Packing group	III
Danger label(s)	8

Special provisions (SP)	223, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-B
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	1760
Proper shipping name	Corrosive liquid, n.o.s.
- Particulars in the shipper's declaration	UN1760, Corrosive liquid, n.o.s., (Phosphoric acid, Hydrochloric acid, solution), 8, III
Class	8
Packing group	III
Danger label(s)	8

Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	1 L

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)

Name of substance	Name acc. to inventory	Restriction	No
uriSTRONG	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	R3	3
2-(2-Butoxyethoxy)ethanol	2-(2-butoxyethoxy)ethanol (DEGBE)	R55	55

Legend

R3 1. Shall not be used in:
- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
- can be used as fuel in decorative oil lamps for supply to the general public, and,
- present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304,

Legend

shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

R55 1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight.
2. Spray paints and spray cleaners in aerosol dispensers containing DEGBE and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010.
3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that paints other than spray paints containing DEGBE in concentrations equal to or greater than 3 % by weight of that are placed on the market for supply to the general public are visibly, legibly and indelibly marked by 27 December 2010 as follows:
'Do not use in paint spraying equipment'.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

Directive on industrial emissions (VOCs, 2010/75/EU)

VOC content	5 %

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Water Framework Directive (WFD)

none of the ingredients are listed

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Name of substance	CAS No	Classification	CN Code	Threshold level
Hydrochloric acid	7647-01-0	Category 3	2806 10 00	

Regulation 648/2004/EC on detergents

Labelling of contents

Constituents	Weight % content (or range)
phosphates	5 % or over but less than 15 %
non-ionic surfactants	less than 5 %

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CN Code	Combined Nomenclature
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value

Abbr.	Descriptions of used abbreviations
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Met. Corr.	Substance or mixture corrosive to metals
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
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
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
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.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.