

ALU CLEANER

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

- 1.1. Product identifier**
Substance / mixture ALU CLEANER
mixture
Number 1 35475 - 1 L/1 35419 - 5 L/1 35420 - 20 L
UFI EGS9-71XV-X81S-F8GT
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use
Cleaning agent.
Mixture uses advised against
For professional use only.
- 1.3. Details of the supplier of the safety data sheet**
Supplier
Name or trade name RETECH, s.r.o.
Address Vackova 1541/4, Praha 5 - Stodůlky, 155 00
Czech Republic
Identification number (CRN) 25018205
VAT Reg No CZ25018205
Phone +420327596428
E-mail info@retech.cz
Web address www.retech.com
- Competent person responsible for the safety data sheet**
Name RETECH, s.r.o.
E-mail info@retech.cz
- 1.4. Emergency telephone number**
European emergency number: 112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Skin Corr. 1, H314

Eye Dam. 1, H318

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment

Causes serious eye damage. Causes severe skin burns and eye damage.

- 2.2. Label elements**
Hazard pictogram

**Signal word**

Danger

Hazardous substances

Orthophosphoric acid

Hazard statements

H314

Causes severe skin burns and eye damage.

Precautionary statements

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

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P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a doctor.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 77-92-9 EC: 201-069-1 Registration number: 01-2119457026-42	Citric acid	1-<5	Eye Irrit. 2, H319 STOT SE 3, H335	
Index: 015-011-00-6 CAS: 7664-38-2 EC: 231-633-2 Registration number: 01-2119485924-24	Orthophosphoric acid	1-<5	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314	1, 2
CAS: 64-17-5 EC: 200-578-6 Registration number: 01-2119457610-43	ethanol	<1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 50 %	

Notes

- 1 Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.
- 2 A substance for which exposure limits are set.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Take care of your own safety, do not let the affected person walk! Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

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If on skin

Remove contaminated clothes. Take off any rings, watches, bracelets before or during washing if worn in the contaminated areas of the skin. Rinse contaminated areas with a flow of water, lukewarm at best, for 10-30 minutes; do not use any brush, soap or neutralizers. Depending on the situation, call the medical rescue service and always ensure medical treatment. Rinse cautiously with water for several minutes. Rinse skin with water or shower.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

If swallowed

DO NOT INDUCE VOMITING! Rinse out the mouth with water and provide 2-5 dL of water. Never give anything by mouth to an unconscious person. Provide medical treatment.

4.2. Most important symptoms and effects, both acute and delayed**If inhaled**

Inhaling vapours can cause corrosion of the breathing system.

If on skin

Causes severe skin burns.

If in eyes

Causes serious eye damage.

If swallowed

Corrosion of the digestion system can occur.

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

Symptomatic treatment.

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

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

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SECTION 7: Handling and storage
7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Keep only in original packaging. Store locked up.

The specific requirements or rules relating to the substance/mixture

Do not store together with alkalis (caustic solutions). Do not store together with food, drink and animal feed.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union
Commission Directive 2000/39/EC

Substance name (component)	Type	Value
Orthophosphoric acid (CAS: 7664-38-2)	OEL 8 hours	1 mg/m ³
	OEL 15 minutes	2 mg/m ³

DNEL

ethanol					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	1900 mg/m ³	Acute effects local		
Workers	Dermal	343 mg/kg bw/day	Chronic effects systemic		
Workers	Inhalation	960 mg/m ³	Chronic effects systemic		
Consumers	Inhalation	960 mg/m ³	Acute effects local		
Consumers	Dermal	206 mg/kg bw/day	Chronic effects systemic		
Consumers	Inhalation	114 mg/m ³	Chronic effects systemic		
Consumers	Oral	87 mg/kg bw/day	Chronic effects systemic		

Orthophosphoric acid					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	2 mg/m ³	Acute effects local		
Workers	Inhalation	1 mg/m ³	Chronic effects local		
Workers	Inhalation	10.7 mg/m ³	Chronic effects systemic		
Consumers	Inhalation	0.36 mg/m ³	Chronic effects local		
Consumers	Inhalation	4.57 mg/m ³	Chronic effects systemic		
Consumers	Dermal	0.1 mg/kg bw/day	Chronic effects systemic		

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PNEC

ethanol			
Route of exposure	Value	Value determination	Source
Freshwater environment	0.96 mg/l		
Marine water	0.79 mg/l		
Water (intermittent release)	2.75 mg/l		
Microorganisms in sewage treatment	580 mg/l		
Freshwater sediment	3.6 mg/kg of dry substance		
Sea sediments	2.9 mg/kg of dry substance		
Soil (agricultural)	0.63 mg/kg of dry substance		
Food chain	720 mg/kg of food		

8.2. Exposure controls

Take off contaminated clothing and wash before reuse. Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest. Ensure workplace is equipped with a safety shower and eye wash station.

Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

Skin protection

Hand protection: Protective gloves resistant to the product. EN ISO 374-1. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Use a mask with filter when the exposition limits of the substances are exceeded or at the place with insufficient ventilation.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	>100 °C
Flammability	non-flammable
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	1.5-2 (undiluted)
Kinematic viscosity	data not available
Solubility in water	soluble
Solubility in fats	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available

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Density and/or relative density	
Density	data not available
Relative density	1.02
Relative vapour density	data not available
Particle characteristics	data not available
Form	liquid
data not available	

9.2. Other information

Evaporation rate	data not available
Oxidising properties	The product has no oxidizing properties.
Explosive properties	The product does not have explosive properties.

SECTION 10: Stability and reactivity
10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the mixture.

Acute toxicity

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

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	ATE		14290 mg/kg				Calculation of value

ethanol							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD ₅₀	OECD 401	10470 mg/kg		Rat		Literary studies
Inhalation (vapor)	LC ₅₀	OECD 403	116.9 mg/l	4 hours	Rat	M	Literary studies

Orthophosphoric acid							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Inhalation	LC ₅₀		850 mg/l	2 hours	Rat		
Dermal	LD ₅₀		2740 mg/kg		Rabbit		

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Skin corrosion/irritation

Causes severe skin burns and eye damage.

ethanol					
Route of exposure	Result	Method	Exposure time	Species	Value determination
	Not irritating	OECD 404		Rabbit	Literary studies

Orthophosphoric acid					
Route of exposure	Result	Method	Exposure time	Species	Value determination
	Corrosive		24 hours	Rabbit	

Serious eye damage/irritation

Causes serious eye damage. Causes severe skin burns and eye damage.

ethanol					
Route of exposure	Result	Method	Exposure time	Species	Value determination
	Irritating	OECD 405		Rabbit	Literary studies

Orthophosphoric acid					
Route of exposure	Result	Method	Exposure time	Species	Value determination
	Corrosive			Rabbit	

Respiratory or skin sensitisation

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

ethanol						
Route of exposure	Result	Method	Exposure time	Species	Sex	Value determination
	Not sensitizing	OECD 429		Mouse		Literary studies

Germ cell mutagenicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

ethanol							
Result	Method	Exposure time	Specific target organ	Species	Sex	Value determination	Source
Negative	OECD 471			Bacteria (Salmonella typhimurium)		Literary studies	

Orthophosphoric acid							
Result	Method	Exposure time	Specific target organ	Species	Sex	Value determination	Source
Negative	OECD 471			Bacteria (Salmonella typhimurium)			in vitro
Negative	OECD 471			Bacteria (Escherichia coli)			in vitro

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Orthophosphoric acid							
Result	Method	Exposure time	Specific target organ	Species	Sex	Value determination	Source
Negative	OECD 473		Lymphatic system	Human			in vitro
Negative	OECD 476		Lymphatic system	Mammals			in vitro

Carcinogenicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

Orthophosphoric acid					
Route of exposure	Parameter	Value	Result	Species	Sex
			Negative		

Reproductive toxicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

Orthophosphoric acid									
Effect	Parameter	Method	Value	Specific target organ	Result	Species	Sex	Value determination	Source
Developmental toxicity	NOAEL	OECD 414	≥410 mg/kg bw/day	Fetus	No effect	Rat		Analogous approach	Wistar
Effects on fertility	NOAEL F ₁	OECD 422	≥500 mg/kg bw/day		No effect	Rat			Sprague-Dawley

Toxicity for specific target organ - single exposure

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

Orthophosphoric acid					
Route of exposure	Parameter	Value	Result	Species	Sex
			No effect		

Toxicity for specific target organ - repeated exposure

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

Orthophosphoric acid							
Route of exposure	Parameter	Method	Value	Exposure time	Result	Species	Sex
Oral		OECD 422	250 mg/kg bw/day	90 days	No effect	Rat	

Aspiration hazard

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

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11.2. Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information
12.1. Toxicity

Data for the mixture are not available. Based on the available data, the criteria for classification of the mixture are not met.

Acute toxicity

ethanol						
Parameter	Method	Value	Exposure time	Species	Environment	Value determination
LC ₅₀		14200 mg/l	96 hours	Fish (Pimephales promelas)		Literary studies, Continuous system
EC ₅₀		5012 mg/l	48 hours	Daphnia (Ceriodaphnia dubia)		Literary studies, Static system
ErC ₅₀	OECD 201	275 mg/l	72 hours	Algae (Chlorella vulgaris)		Literary studies

Orthophosphoric acid						
Parameter	Method	Value	Exposure time	Species	Environment	Value determination
LC ₅₀		3-3.25 mg/l	96 hours	Fish (Lepomis macrochirus)		
EC ₅₀	OECD 202	>100 mg/l	48 hours	Daphnia (Daphnia magna)		Static system
EC ₅₀	OECD 201	>100 mg/l	72 hours	Algae (Desmodesmus subspicatus)		Static system, Indicator of growth
EC ₅₀	OECD 209	>1000 mg/l	3 hours		Activated sludge	

Chronic toxicity

ethanol						
Parameter	Method	Value	Exposure time	Species	Environment	Value determination
NOEC		9.6 mg/l	9 days	Daphnia (Daphnia magna)		Literary studies, Semi static system

Orthophosphoric acid						
Parameter	Method	Value	Exposure time	Species	Environment	Value determination
NOEC	OECD 201	100 mg/l	72 hours	Algae (Desmodesmus subspicatus)		Static system, Indicator of growth

12.2. Persistence and degradability

Data for the mixture are not available. Surfactants are biodegradable according to the European Parliament and Council Regulation (EC) No. 648/2004 on detergents, as amended.

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Biodegradability

Citric acid					
Parameter	Value	Exposure time	Environment	Value determination	Result
	>60 %	28 days			

ethanol					
Parameter	Value	Exposure time	Environment	Value determination	Result
		28 days		Literary studies	Easily biodegradable
BSK	1.5 mg			Calculation of value	

12.3. Bioaccumulative potential

No data are available for either the mixture or the components.

12.4. Mobility in soil

Data for the mixture are not available.

ethanol				
Parameter	Value	Environment	Temperature	Result
				High

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1. UN number or ID number

not subject to transport regulations

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

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14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Additional information in accordance with Regulation (EC) no. 648/2004 on detergents, as amended

<5 % phosphates, <5 % non-ionic surfactants

15.2. Chemical safety assessment

not available

SECTION 16: Other information**A list of standard risk phrases used in the safety data sheet**

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Guidelines for safe handling used in the safety data sheet

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a doctor.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
BOD	Biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union

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EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquid
Met. Corr.	Corrosive to metals
Skin Corr.	Skin corrosion
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 4.0 replaces the SDS version from 02 August 2022. Changes were made in sections 2, 3, 8, 9, 11, 12, 13, 15 and 16.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.