

SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification EPOXY PPRIMER 2:1 UFI: COTO-70TD-600C-AJA9

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

1.2.1. Relevant identified uses Identified use: the first component of an epoxy filler that provides active anti-corrosion protection. For professional use. *

1.2.2. Uses advised against No further data available. \ast

1.3 Data of the safety data sheet supplier

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Person responsible for the safety data sheet: ranal@ranal.pl

1.4. Emergency telephone

+48 34 329 45 03 (8.00 - 15.00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture has been classified as hazardous. Classification according to the regulation (EC) no 1272/2008.

Hazard class, category code	Hazard class	Hazard code	Hazard type
Flam. Liq. 2 *	Flammable liquids, cat. 2	H225	Highly flammable liquid and vapour.
Skin Irrit. 2	Skin irritation, cat. 2	H315	Causes skin irritation.
Skin. Sens. 1	Skin sensitization, cat. 1	H317	May cause an allergic skin reaction.
Eye Dam. 1 *	Serious eye damage, cat. 1	H318	Causes serious eye damage.
Carc. 2 *	Carcinogenicity, cat. 2	H351	Suspected of causing cancer.
STOT DE 2*	Specific target organ toxicity - repeated exposure,	L1272	May cause damage to organs through prolonged or repeated
STOT KL Z	cat. 2	11373	exposure.

2.2. Label elements

Contains: Xylene N-butanol, 4-methylpentan-2-one. *

Classification according to the regulation (EC) no 1272/2008: The product has been classified and labelled according to CLP regulation.



Signal word: DANGER *

- Hazard statements: Highly flammable liquid and vapour. * H225 Causes skin irritation. H315 H317 May cause an allergic skin reaction. H318 Causes serious eye damage. * Suspected of causing cancer. * H351 H373 May cause damage to organs through prolonged or repeated exposure. * Precautionary statements: Prevention: P210 Keep away from sources of heat/sparks/open flames/hot surfaces. No smoking. P260 Do not breathe mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. Reaction:
- P302+P352IF ON SKIN: wash skin with plenty of water and soap.P314Get medical advice/attention if you feel unwell. *

Storage:

P403+P235 Store in a well-ventilated place. Keep cool. *



Disposal:

P501 Dispose of contents/container to: landfill for hazardous substances. *

Additional information on the label*:

EUH205 Contains epoxy components. May cause an allergic reaction. *

EUH211 Warning! Hazardous respirable droplets may form if sprayed. Do not breathe spray or vapour. *

2.3. Other hazards

No data. *

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Description: A mixture of organic compounds with additives.*

Substance name	Identification	Classification 1272/2008:			
bisphenol A - epoxy resin (average molecular weight >700 -<1100) *	Index no: CAS: 25068-38-6 EC:	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1	Н315, Н319, Н317	<25-30	
Xylene	index 601-022-00- 9 CAS: 1330-20-7 WE: 215-535-7 Registration no: 01-2119488216-32-xxxx	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2 Eye Irrit. 2, STOT SE 3, STOT SE 3, STOT RE 2, Asp. Tox. 1	H226, H312, H332, H315, H319, H335, H336, H373, H304	<5-15	
titanium dioxide*	Index no: CAS: 13463-67-7 EC: 236-675-5 Registration no: 01-2119489379-17- 0004	Carc. 2	H351 (inhalation)	0-10.5	
4-methylpentan-2-one *	Index no: 606-004-00-4 CAS: 108-10-1 EC: 203-550-1 Registration no: 01-2119473980-30-xxxx	Flam. Liq. 2, Acute Tox. 4, Eye Irrit. 2 Carc. 2, STOT SE 3	H225, H332, H319, H351, H336	<7	
N-butyl alcohol	Index no: 603-004-00- 6 CAS: 71-36-3 WE: 200-751-6 Registration no: 01-2119484630-38-xxxx	Acute Tox. 4, STOT SE 3, STOT SE 3, Eye Dam. 1, Skin Irrit. 2, Flam. Liq. 3	H302, H335, H336, H318, H315, H226	<5	
Ethylbenzene*	Index no: 601-023-00- 4 CAS: 100-41-4 EC: 202-849-4 Registration no: 01-2119489370-35-xxxx	Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1	H225, H332, H373, H304	<2	

Full hazard statements provided in section 16 of the Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Exposure methods:

Airways, digestive tract, skin contact, eye contact.

Airways:

Remove the injured person from the area of exposure, provide access to fresh air. In case of respiratory arrest perform artificial respiration. Provide medical aid if needed. *

Ingestion:

Rinse mouth with water. Do not give anything to an unconscious person to swallow. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Take the victim immediately to the hospital. *

Contact with eyes:

Remove contact lenses. Rinse with plenty of water with the eyelid held wide open, avoiding a strong water jet. If necessary consult an ophthalmologist. *

Contact with skin:

Take off contaminated clothes and shoes. Rinse skin with plenty of water and wash with water and soap. If skin irritation occurs, consult a doctor*.

4.2. Most important symptoms both acute and delayed

High doses of vapours may cause: dizziness, drowsiness, headache, vomiting, loss of consciousness. Contact with skin may cause allergic reactions and its dryness and cracking. May cause eye damage. *

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

Symptomatic treatment. Provide the doctor with the product safety data sheets. * First aiders should wear medical gloves.

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing agents:

Carbon dioxide CO₂, extinguishing powders, foam resistant to alcohol. Water mist. *

Unsuitable extinguishing agents:

Do not use strong jets of water on the surface of the burning mixture. This causes scattering of the burning mixture and thus the spread of the fire.

5.2. Special hazards arising from the substance or mixture

Flammable liquid mixture. Combustion may form carbon oxides and other toxic gases. Vapours may ignite again. *

5.3. Advice for fire fighters

Use independent self-contained breathing apparatus and full protective clothing. Tanks exposed to high temperature should be cooled with water from a safe distance and, if possible, removed from the endangered area. Collect the extinguishing water. Prevent fire-fighting water from entering surface or ground water. *

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Evacuate personnel to a safe place. Eliminate ignition sources. Avoid breathing vapour / mist / spray. Provide adequate ventilation. Avoid contamination of eyes, skin and clothing. Wear protective clothing and equipment. *

6.2. Environmental precautions

Prevent from entering sewage system, surface water, ground water and soil. * Prevent contamination of the environment. Secure drains. In the event of serious contamination of a watercourse, sewage system or soil, notify the appropriate administrative and control authorities and rescue organizations.

6.3. Methods and materials for containment and cleaning up

Eliminate the source of the leak. Collect small spills with non-combustible absorbent material. Collect large spills mechanically. Collect contaminated soil. *

6.4. Reference to other sections

Personal protection - see section 8 of the Sheet. Disposal methods - see section 13 of the Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

Avoid open flames and high temperature. Work in well-ventilated rooms. Do not breathe vapours or spray. Avoid contamination of eyes, skin and clothing. Do not eat or drink at the site where the product is used. Wash hands before each break and at the end of work. Observe the rules of personal hygiene. *

7.2. Conditions for safe storage, including any

incompatibilities

Store in tightly closed, original containers. Store in a cool and well-ventilated place. Away from the sources of fire and heat. Avoid electrostatic discharge. *

7.3. Special end use (s)

No further relevant data available.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

Maximum permissible concentrations*:

SUBSTANCE	CAS	MPC (mg/m ³)	MPIC (mg/m ³)	MPCC (mg/m ³)	Notes: Labelling the substance with notation `skin'*
Xylene	1330-20-7	100	200	-	Skin
titanium dioxide (inhalable fraction)	13463-67-7	10	-	-	-
4-methylpentan-2-one	108-10-1	83	200	-	-
N-butyl alcohol	71-36-3	50	150	-	Skin
Ethylbenzene	100-41-4	200	400	-	Skin

DNEL values*:

Xylene				
DNEL values:	workers	Skin	long-term exposure - systemic effects	212 mg/kg b. w./day
DNEL values:	workers	inhalation:	acute exposure - local effects	442 mg/m ³
DNEL values:	workers	inhalation:	acute exposure - systemic effects	442 mg/m ³
DNEL values:	workers	inhalation:	long-term exposure - local effects	221 mg/m ³
DNEL values:	workers	inhalation:	long-term exposure - systemic effects	221 mg/m ³
DNEL values:	consumers	ingestion:	long-term exposure - systemic effects	12.5 mg/kg b. w./day
DNEL values:	consumers	Skin	long-term exposure - systemic effects	125 mg/kg b. w./day



DNEL values:	consumers	inhalation:	acute exposure - local effects	260 mg/m ³
DNEL values:	consumers	inhalation:	acute exposure - systemic effects	260 mg/m ³
DNEL values:	consumers	inhalation:	long-term exposure - local effects	65.3 mg/m ³
DNEL values:	consumers	inhalation:	long-term exposure - systemic effects	65.3 mg/m ³
4-methylpentan-2-o	one			
DNEL values:	workers	Skin	long-term exposure - systemic effects	11.8 mg/kg b. w./day
DNEL values:	workers	inhalation:	acute exposure - local effects	208 mg/m ³
DNEL values:	workers	inhalation:	long-term exposure - local effects	83 mg/m ³
DNEL values:	workers	inhalation:	long-term exposure - systemic effects	83 mg/m ³
DNEL values:	consumers	ingestion:	long-term exposure - systemic effects	4.2 mg/kg b. w./day
DNEL values:	consumers	Skin	long-term exposure - systemic effects	4.2 mg/kg b. w./day
DNEL values:	consumers	inhalation:	acute exposure - local effects	155.2 mg/m ³
DNEL values:	consumers	inhalation:	acute exposure - systemic effects	155.2 mg/m ³
DNEL values:	consumers	inhalation:	long-term exposure - local effects	14.7 mg/m ³
DNEL values:	consumers	inhalation:	long-term exposure - systemic effects	14.7 mg/m ³
N-butyl alcohol				
DNEL values:	workers	inhalation:	long-term exposure - local effects	10 mg/m ³
DNEL values:	consumers	ingestion:	long-term exposure - systemic effects	3.125 mg/kg/day
DNEL values:	consumers	inhalation:	long-term exposure - local effects	55 mg/m ³
Ethylbenzene				
DNEL values:	workers	Skin	long-term exposure - systemic effects	180 mg/kg b. w./day
DNEL values:	workers	inhalation:	acute exposure - local effects	293 mg/m ³
DNEL values:	workers	inhalation:	long-term exposure - systemic effects	77 mg/m ³
DNEL values:	consumers	inhalation:	long-term exposure - systemic effects	15 mg/m ³
DNEL values:	consumers	ingestion:	long-term exposure - systemic effects	1.6 mg/kg b. w./day

PNEC values*:

Xylene		
PNEC values:	fresh water	0.327 mg/l
PNEC values:	sea water	0.327 mg/l
PNEC values:	Sediment (fresh water)	12.46 mg/kg d. m. of sediment
PNEC values:	Sediment (sea water)	12.46 mg/kg d. m. of sediment
PNEC values:	biological sewage treatment plant	6.58 mg/dm ³
PNEC values:	soil	2.31 mg/kg d. m. of soil
4-methylpentan-2-one		
PNEC values:	fresh water	0.6 mg/l
PNEC values:	sea water	0.06 mg/l
PNEC values:	Sediment (fresh water)	8.27 mg/kg
PNEC values:	Sediment (sea water)	0.83 mg/kg
PNEC values:	sewage treatment plant:	27.5 mg/dm ³
PNEC values:	soil	1.3 mg/kg
N-butyl alcohol		
PNEC values:	fresh water	0.082 mg/l
PNEC values:	sea water	0.0082 mg/l
PNEC values:	intermittent release:	2.25 mg/l
PNEC values:	sewage treatment plant:	2476 mg/l
PNEC values:	Sediment (fresh water)	0.178 mg/kg
PNEC values:	Sediment (sea water)	0.0178 mg/kg
Ethylbenzene		
PNEC values:	fresh water	0.1 mg/l
PNEC values:	sea water	0.01 mg/l
PNEC values:	Sediment (fresh water)	13.7 mg/kg d. m. of sediment
PNEC values:	Sediment (sea water)	1.37 mg/kg d. m. of sediment
PNEC values:	biological sewage treatment plant	9.6 mg/dm ³
PNEC values:	soil	2.68 mg/kg d. m. of soil

8.2 Exposure controls

Technical control measures:

General and local exhaust ventilation. Explosion-proof electrical installation. *

Personal protection measures:



Protective goggles / tight safety glasses. *

Skin protection:

Hands protection:



Gloves resistant to solvents. During full contact, gloves made of nitrile, thickness > 0.55 mm, breakthrough time > 480 minutes, or butyl rubber gloves, thickness > 0.3 mm, breakthrough time > 480 minutes. As the product is a mixture consisting of several substances, the

rubber gloves, thickness > 0.3 mm, breakthrough time > 480 minutes. As the product is a mixture consisting of several substances, the resistance of the materials from which the gloves are made cannot be calculated in advance and should therefore be checked before use. Information about the penetration time of the substance should be obtained from the glove manufacturer. *

Body protection

Protective, antistatic clothing. *



Respiratory protection:

With insufficient ventilation, a half mask with an organic vapour filter of type A or better (EN 140 or EN 141). *

Environmental control:

Prevent the product from entering into sewage system, water and soil. *

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties*

liquid* Physical state: Colour: according to RANAL colour pattern Odour: characteristic Melting /freezing point: no data available approx. 110°C* Boiling point: Flammability of the materials: flammable* Bottom and top explosion limit: bottom 0.8 vol. %, top 7 vol. % (xylene) * Flash point: 22°C Auto ignition point: no data available* Breakdown point: no data available pH: No data. not applicable* Viscosity: Solubility (in water): Insoluble. n-octanol/water partition coefficient: 3.12 - 3.2 (xylene)* Vapour pressure: 0.65 - 0.944 kPa at 20°C (xylene) * Density: app 1.3 g/cm^{3*} Relative vapour density: no data available* Particle characteristics: no data available*

9.2. Other information

No further relevant data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Acuto toxicity*

The product is not chemically reactive under normal conditions.

10.2. Chemical stability

Under the conditions of correct storage and use, the mixture is chemically stable.

10.3. Possibility of hazardous reactions

Vapours of the product form explosive mixtures with air.

10.4. Conditions to be avoided

High temperatures. Open flames and other heat sources. *

10.5. Incompatible materials

Avoid contact with strong oxidants, strong acids and bases. *

10.6. Hazardous decomposition products

As a result of thermal decomposition, carbon monoxide and other toxic gases are generated. st

SECTION 11: TOXICOLOGICAL INFORMATION

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

There are no experimental data on the toxicological properties of the product. The assessment was based on the data concerning the components included in the product. *

Bisphenol A- epoxy resin, average molecular weight MW >700 - <1100	LD50 (rat, female oral)	>2000 mg/kg
Xylene	LD ₅₀ (rat, oral)	>2000 mg/kg
	LC ₅₀ (rat, inhalation)	> 20 mg/dm ³ /4h
	LD ₅₀ (rabbit, skin)	>2000 mg/kg
4-methylpentan-2-one	LD ₅₀ (rat, oral)	2100 mg/kg
	LC ₅₀ (rat, inhalation)	8.3 – 16.6 mg/dm ³ /4h
	LD ₅₀ (rabbit, skin)	16000 mg/kg
N-butyl alcohol	LD ₅₀ (rat, female, oral)	2292 mg/kg
	LC ₅₀ (rat, inhalation)	>17.76 mg/l/4h
	LD ₅₀ (rabbit, skin)	3430 mg/kg
Ethylbenzene	LD ₅₀ (rat, oral)	3500 mg/kg
	LC_{50} (rat, inhalation)	17.8 mg/m ³ /4h
	LD ₅₀ (skin)	15400 mg/kg
	TCL0 (human, inhalation)	442 ma/m ³ /8h



*

ATE_{mix} (oral) >2000 mg/kg body weight

ATE_{mix} (Skin) >2000 mg/kg body weight

 ATE_{mix} (inhalation) >20 mg/l

The ATEmix values have been calculated using the appropriate conversion factor in Table 3.1.2. from Regulation 1272/2008/EC, as amended.

The mixture is not classified as acute toxicity. No data confirming the hazard.

Skin corrosion/irritation: Causes skin irritation. May cause an allergic skin reaction. Irritation and redness may occur.

Serious eye damage/eye irritation: The mixture is classified as causing eye irritation.

Allergic effect on airways or skin*: The mixture is classified as causing skin sensitization. *

Mutagenic effect on germ cells*: The mixture is not classified as mutagenic. No data confirming the hazard.

Carcinogenic effect*: The mixture is suspected of causing cancer.

Harmful effect on reproduction*: The mixture is not classified as having harmful effect on reproduction. No data confirming the hazard. Specific target organ toxicity – single exposure*: The mixture is not classified as toxic to target organs – single exposure. Specific target organ toxicity – repeated exposure*: The mixture is classified as toxic to target organs – repeated exposure.

Aspiration hazard*: The mixture is not classified as causing aspiration hazard. No data confirming the hazard.

11.2. Information on other hazards*

No data.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

There are no experimental data on the toxicological properties of the product. The assessment was based on the data concerning the components included in the product. *

Bisphenol A- epoxy resin,	acute toxicity to fish (rainbow trout)	LC ₅₀ > 100 mg/l/96h	
Average molecular weight	acute toxicity to Daphnia (Daphnia magna)	$EC_{50} > 100 \text{ mg/l/ }48h$	
MW >700 - <1100	acute toxicity to algae	EC ₅₀ > 100 mg/l/72h	
Xylene	acute toxicity to fish (Pimephales promelas)	LC ₅₀ 16.1 mg/l/96h	
	acute toxicity to fish (Oncorhynchus mykiss)	LC ₅₀ 2.6 mg/l/96h	
	acute toxicity to aquatic invertebrates (Daphnia magna)	EC ₅₀ 3.82 mg/l/48h	
	acute toxicity to algae	EC ₅₀ 2.2 mg/l/73h	
N-butyl alcohol	acute toxicity to fish (Pimephales promelas)	LC ₅₀ 1376 mg/l/96h	
	acute toxicity to daphnia (Daphnia magna)	EC ₅₀ 1328 mg/l/48h	
	acute toxicity to activated sludge microorganisms	EC ₅₀ 4390 mg/l/17h	
	acute toxicity to aquatic plants (growth rate)	EC ₅₀ 225 mg/l/96h	
	long-term toxicity to daphnia (Daphnia magna)	NOEC 4.1 mg/l/21d	
Ethylbenzene	toxicity to fish (Pimephales promelas)	LC ₅₀ 49 mg/l/96h	
	acute toxicity to aquatic invertebrates (Daphnia magna)	EC ₅₀ 184 mg/l/24h	

12.2. Persistence and degradability

Xylene: biodegradable. * Epoxy resin: biodegradation 5%, 28 days* N-butyl alcohol: biodegradation 92%, 20 days*

12.3. Bioaccumulative potential

Ethylbenzene: log Pow 3,15* 4-Methylpentan-2-one: log Pow 1,31*

12.4. Mobility in soil

No data. *

12.5. Results of PBT and vPvB assessment

Substances included in the mixture do not meet the PBT or vPvB criteria in accordance with Annex XIII. \ast

12.6. Endocrine disrupting properties*

No data.

12.7. Other hazardous effects*

No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Used packaging and waste product should be delivered to authorised companies. Dispose of according to applicable local and official waste regulations – see section 15.

Waste code:

08 01 11 Waste paints and varnishes containing organic solvents or other dangerous substances.

Waste container code:

15 01 10 Packaging containing residues of or contaminated by dangerous substances (e.g. pesticides of I and II class of toxicity – very toxic or toxic). *



SECTION 14: TRANSPORT INFORMATION

		ADR/RID	IMGD	IATA
14.1	UN number	1263	1263	1263
14.2.	UN proper shipping name	PAINT		
14.3.	Transport hazard class (-es)	3	3	3
	Warning label 3			3
14.4.	Packaging group	II*	II*	II*
14.5.	Environmental hazards	No.	No.	No.
14.6.	Special precautions for users	Not applicable.		
14.7.	Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code	Not applicable.		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a 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. Official , Journal of the EU L136 of May 29 2007 as amended, Official Journal EU L 304 of November 22 2007; Official Journal EU L 268 of October 09 2008; Official Journal EU L 46 of February 17 2009; Official Journal EU L 164 of June 26 2009; Official Journal EU L 133/1 of 31 May 2010 as amended.
- Regulation (EC) NR 1272/2008 of the European Parliament and of the RADY of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended. *
- ADR agreement Government Statement of February 15, 2021 ((Journal of Laws 2021, item 874) on the entry into force of amendments to Annexes A and B of the European Agreement on the International Carriage of Dangerous Goods by Road (ADR), drawn up in Geneva on September 30, 1957. (Journal of Laws of 2019, item 769). *

15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

SECTION 16: OTHER INFORMATION

Hazard statemen	ts from sections 2-15 of the MSDS:
Flam. Liq. 2	Flammable liquids, cat. 2 *
H225	Highly flammable liquid and vapour. *
Flam. Liq. 3	Flammable liquids, cat. 3. *
H226	Flammable liquid and vapour.
Acute Tox. 4	Acute toxicity, cat. 4. *
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled. *
Skin Irrit. 2	Skin irritation, cat. 2
H315	Causes skin irritation.
Eye Dam. 1	Serious eye damage, cat. 1 *
H318	Causes serious eye damage. *
Eye Irrit. 2	Causes serious eye irritation, cat. 2 *
H319	Causes eye irritation.
Skin Sens. 1	Skin sensitization, cat. 1 *
H317	May cause an allergic skin reaction.
Carc. 2	Carcinogenicity, cat. 2 *
H351	Suspected of causing cancer. *
STOT SE 3	Specific target organ toxicity – single exposure, cat. 3 *
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
STOT RE 2	Specific target organ toxicity – repeated exposure, cat. 2. *
H373	May cause damage to organs through prolonged or repeated exposure. *
Asp. Tox. 1	Aspiration hazard. *
H304	May be fatal if swallowed and enters airways. *

Recommended restrictions in use: The product is intended for professional use only. *

Training Tips:

Read MSDS before using the product.

Explanation of abbreviations and acronyms:

- EC reference number used in the European Union to identify hazardous substances, in particular those registered in the European Inventory of Existing Chemical Substances (EINECS), or in European List of Notified Chemical Substances (ELINCS) or the list of chemicals listed in 'No-longer polymers'.
- CAS a number assigned to a chemical substance in Chemical Abstracts Service
- MPC maximum permissible concentration at the workplace the highest permissible weighted average concentration, whose impact on the employee during 8 hours of work, throughout the entire period of his professional activity, should not cause changes in his state of health and the state of health of his future generations.



MPIC maximum permissible instantaneous concentration - the maximum permissible instantaneous concentration set as an average value that should not cause negative changes in the state of health of the worker and the state of health of his future generations, if it persists in the work environment for no more than 30 minutes during a shift. MPCC concentration value which, due to the threat to the employee's health or life, cannot be exceeded in the work environment at anv time. vPvB substance, which is very Persistent and very Bio-accumulative PBT substance, which is Persistent, Bio-accumulative and toxic lethal dose - the dose at which deaths of 50% of test animals are observed over a specified period of time* **DL**₅₀ lethal concentration - the concentration at which deaths of 50% of the test animals are observed over a specified period of CL₅₀ time* effective concentration - the effective concentration of the substance causing a response at 50% of the maximum value* CE50 no-harmful level for human health - the level of exposure to a substance not harmful to human health* DNEL PNEC predicted no-effect concentration - the concentration of the substance below which no harmful effects for the environment are expected* PBC permissible concentration in biological material - the highest permissible level of a specific factor or its metabolite in the relevant biological material or the highest permissible value of an appropriate indicator determining the impact of a chemical agent on the body* BCF bioconcentration factor - the ratio of the concentration of a substance in the body to its concentration in water at equilibrium* UN number four-digit material identification number in the UN Hazardous Materials List, derived from the UN Model Regulations, to which the individual material, mixture or object is classified European Agreement concerning the International Carriage of Dangerous Goods by Road ADR IMDG International Maritime Dangerous Goods Code IATA International Air Transport Association.

Other information sources:

IUCLID International Uniform Chemical Information Database ESIS European Chemical Substances Information System ECHA Website

Other information:

The product described in the safety data sheet should be stored and used in accordance with good industrial practice and in accordance with all legal regulations.

The information and recommendations contained in the safety data sheet are based on our general experience and our latest knowledge, and have been presented in good faith. No part of this publication can be treated as guarantee, warranty or position directly, indirectly or otherwise. In all cases, it is the user', s responsibility to determine and verify that the information and recommendations are accurate, sufficient and relevant to the particular case. The user is responsible for creating the conditions for the safe use of the product and he is responsible for the consequences of incorrect use of this product.

Changes in the sheet (marked with the symbol: *):

Update of sections:

11: rewording of sub-section 11.1: Information on the hazard classes defined in Regulation (EC) No 1272/2008

12: new subsection 12.6: Endocrine disrupting properties.

14: rewording of sub-section 14.7: Sea transport in bulk in accordance with IMO instruments.

Changes in the content of sections: 1.1, 1.2, 2.1, 2.2, 3.2, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 6.1, 6.2, 6.3, 6.4, 7.1, 7.2, 8.1, 8.2, 9.1, 10.4, 10.5, 10.6, 11.1, 11.2, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 13.1, 14.4, 14.7, 15.1, 16. General update.

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