Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Engineering Resin Extreme Strength

Version number: SDS 1.0 Date of compilation: 2022-01-16

SECTION 1: Identification

1.1 Product identifier

Trade name **Engineering Resin Extreme Strength**

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

Relevant identified uses. 3D printing resin

1.3 Details of the supplier of the safety data sheet

MAYER MAKES e.U.
Josef Kollmann Strasse 25
2500 Baden
Telephone: +43 6 50 248-280 4
e-mail: clemens.mayer@mayermakes.at

e-mail (competent person) clemens.mayer@mayermakes.at

1.4 Emergency telephone number

Emergency information service +43 6 50 248-280 4
This number is only available during the following office hours: Mon-Fri 09:00 - 17:00

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard state-ment
A.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
A.4S	skin sensitization	1	Skin Sens. 1	H317

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word warning
- Pictograms

GHS07

- Hazard statements

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

- Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear eye protection/face protection.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling: Methacrylic acid, monoester with propane-1,2-diol, phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide, 2,2'-ethylenedioxydiethyl dimethacrylate, mequinol

2.3 Other hazards

Hazards not otherwise classified

Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

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
Methacrylic acid, monoester with propane-1,2-diol	CAS No	27813-02-1	25 – < 50	Acute Tox. 4 / H302 Eye Irrit. 2 / H319 Skin Sens. 1 / H317
2,2'-ethylenedioxydiethyl dimethacrylate	CAS No	109-16-0	5 – < 10	Skin Sens. 1B / H317
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	CAS No	162881-26-7	1 – < 5	Skin Sens. 1A / H317
mequinol	CAS No	150-76-5	< 1	Acute Tox. 4 / H302 Eye Irrit. 2 / H319 Skin Sens. 1 / H317

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.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

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

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

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

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/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: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment 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

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

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.

7.2 Conditions for safe storage, including any incompatibilities

7.3 Specific end use(s)

See section 16 for a general overview.

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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
US	4-methoxyphenol	150-76-5	PEL (CA)		5						Cal/OSHA PEL
US	4-methoxyphenol	150-76-5	REL		5 (10 h)						NIOSH REL
US	4-methoxyphenol	150-76-5	TLV®		5						ACGIH® 2021

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur
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

Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	DNEL	14.7 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	DNEL	4.2 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	DNEL	48.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	DNEL	13.9 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
mequinol	150-76-5	DNEL	3 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	PNEC	0.904 mg/l	aquatic organisms	freshwater	short-term (single instance)
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	PNEC	0.904 mg/l	aquatic organisms	marine water	short-term (single instance)
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

Relevant PNECs of components of the mixture						
Name of substance	**CAS No**	**Endpoint**	**Threshold level**	**Organism**	**Environmental compartment**	**Exposure time**
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	PNEC	6.28 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	PNEC	6.28 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	PNEC	0.727 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.016 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.002 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	1.7 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.185 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.018 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	PNEC	0.027 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)
mequinol	150-76-5	PNEC	0.014 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
mequinol	150-76-5	PNEC	0.001 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
mequinol	150-76-5	PNEC	10 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
mequinol	150-76-5	PNEC	0.125 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
mequinol	150-76-5	PNEC	0.013 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
mequinol	150-76-5	PNEC	0.017 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

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

  Nitrile

- Material thickness

  ≥0,35mm

- Breakthrough times of the glove material

  >60 minutes (permeation: level 3)

- Other protection measures

  Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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
Color	colorless
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

PH (value)	6 – 8 (in aqueous solution: 100 % ($^{w}/_{w}$))
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	>168 °C at 101.3 kPa
Flash point	not determined
Evaporation rate	not determined
Flammability	not relevant, (fluid)
Vapor pressure	0.11 hPa at 20 °C
Density	1.15 $^{g}/_{cm^3}$ at 20 °C
Vapor density	this information is not available
Solubility(ies)	not determined
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	255 °C (auto-ignition temperature (liquids and gases))
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

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9.2 Other information

Temperature class (USA, acc. to NEC 500) T2C (maximum permissible surface temperature on the equipment: 230°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

UV-radiation/sunlight.

10.5 Incompatible materials

Oxidizers

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 acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	oral	≥2,000 $^{mg}/_{kg}$
mequinol	150-76-5	oral	500 $^{mg}/_{kg}$

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

May cause an allergic skin reaction.

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

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	LC50	493 mg/l	fish	48 h
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	EC50	>143 mg/l	aquatic invertebrates	48 h
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	ErC50	>97.2 mg/l	algae	72 h
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	LC50	23.1 mg/l	fish	24 h
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	ErC50	>100 mg/l	algae	72 h
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	EC50	72.8 mg/l	algae	72 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	LC50	>90 µg/l	fish	96 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	EC50	>1,175 µg/l	aquatic invertebrates	48 h
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	ErC50	>260 µg/l	algae	72 h
mequinol	150-76-5	LC50	28.5 mg/l	fish	96 h
mequinol	150-76-5	EC50	3 mg/l	aquatic invertebrates	48 h
mequinol	150-76-5	ErC50	54.7 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	**CAS No**	**Endpoint**	**Value**	**Species**	**Exposure time**
2,2'-ethylenedioxydiethyl di-methacrylate	109-16-0	EC50	51.9 $^{mg}/_{l}$	aquatic invertebrates	21 d
phenyl bis(2,4,6-trimethylben-zoyl)-phosphine oxide	162881-26-7	EC50	>100 $^{mg}/_{l}$	microorganisms	3 h
mequinol	150-76-5	LC50	>1.45 $^{mg}/_{l}$	aquatic invertebrates	21 d
mequinol	150-76-5	EC50	1.42 $^{mg}/_{l}$	aquatic invertebrates	21 d

12.2 Persistence and degradability

Data are not available.

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 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

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**	not subject to transport regulations
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard class(es)**	not assigned
14.4	**Packing group**	not assigned
14.5	**Environmental hazards**	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

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.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

none of the ingredients are listed

- Toxic or Hazardous Substance List (MA-TURA)

none of the ingredients are listed

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
mequinol	150-76-5		

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
mequinol	150-76-5	T

Legend
T Toxicity (ACGIH®)

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California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	2	temporary or minor injury may occur
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	not all ingredients are listed
CA	DSL	not all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed

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Country	Inventory	Status
US	TSCA	not all ingredients are listed

Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2021	From ACGIH®, 2021 TLVs® and BEIs® Book. Copyright 2021. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
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
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
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)

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Abbr.	Descriptions of used abbreviations
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration 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")
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). 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 section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Disclaimer

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

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