

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

1.1. Product identifier

Mixture identification:

Trade name: MAPECOAT TNS PU 700 SL

Trade code: 906MW9990

UFI: AY41-00QV-0004-U468

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

Recommended use: Polyurethane coating

Uses advised against: Data not available.

1.3. Details of the supplier of the safety data sheet

Company: MAPEI S.p.A. - Via Cafiero, 22 - 20158 Milano

Tel. +(39)02376731 (office hours) - Fax: +39-02-37673.214 - www.mapei.it

Responsible: sicurezza@mapei.it

1.4. Emergency telephone number

Centro antiveleni, Azienda ospedaliera "Antonio Cardarelli", III Servizio di anestesia e rianimazione, via Antonio Cardarelli 9, Napoli - Tel. 081 5453333

Centro antiveleni, Azienda ospedaliera universitaria Careggi, U.O. Tossicologia medica, via Largo Brambilla 3, Firenze - Tel. 055 7947819

Centro antiveleni, Centro nazionale d'informazione tossicologica, IRCCS Fondazione Salvatore Maugeri Clinica del lavoro e della riabilitazione, via Salvatore Maugeri 10, Pavia - Tel. 0382 24444

Centro antiveleni, Azienda ospedaliera Niguarda Ca' Granda, piazza Ospedale Maggiore 3, Milano - Tel. 02 66101029

Centro antiveleni, Azienda ospedaliera "Papa Giovanni XXIII", Tossicologia clinica, Dipartimento di farmacia clinica e farmacologia, piazza OMS 1, Bergamo - Tel. 800 883300

Centro antiveleni Policlinico "Umberto I", PRGM tossicologia d'urgenza, viale del Policlinico 155, Roma - Tel. 06 49978000

Centro antiveleni del Policlinico "Agostino Gemelli", Servizio di tossicologia clinica, largo Agostino Gemelli 8, Roma - Tel. 06 3054343

Centro antiveleni, Azienda ospedaliera universitaria Riuniti, viale Luigi Pinto 1, Foggia - Tel. 800 183459

Centro antiveleni, Ospedale pediatrico Bambino Gesù, Dipartimento emergenza e accettazione DEA, piazza Sant'Onofrio 4, Roma - Tel. 06 68593726

Centro antiveleni dell'Azienda ospedaliera universitaria integrata (AOUI) di Verona sede di Borgo Trento, piazzale Aristide Stefani, 1 - 37126 Verona - Tel. 800 011858

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Eye Irrit. 2 Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Pictograms and Signal Words



Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/clothing and eye/face protection.

P337+P313 If eye irritation persists: Get medical advice/attention.

Special Provisions:

EUH208 Contains 4-isocyanatesulphonyltoluene; tosyl isocyanate. May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

Restricted to professional users.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances
present in concentration >= 0.1%

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not Relevant

3.2. Mixtures

Mixture identification: MAPECOAT TNS PU 700 SL

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥1 - <2.5 %	2-ethylhexane-1,3-diol; octylene glycol	CAS:94-96-2 EC:202-377-9 Index:603-087-00-9	Eye Dam. 1, H318	01-2120000832-71
≥1 - <2.5 %	Zinc borate	CAS:138265-88-0 EC:235-804-2	Repr. 2, H361d; Aquatic Acute 1, H400; Aquatic Chronic 2, H411	01-2119691658-19
≥1 - <2.5 %	free crystalline silica (Ø <10 µ)	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	
≥0.49 - <1 %	4-isocyanatesulphonyltoluene; tosyl isocyanate	CAS:4083-64-1 EC:223-810-8 Index:615-012-00-7	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334, EUH014	01-2119980050-47-XXXX
≥0.1 - <0.25 %	triphenyl phosphate	CAS:115-86-6 EC:204-112-2	Aquatic Acute 1, H400; Aquatic Chronic 2, H411	01-2119457432-41-XXXX
<0.0015 %	chlorobenzene	CAS:108-90-7 EC:203-628-5 Index:602-033-00-1	Flam. Liq. 3, H226; Acute Tox. 4, H332; Skin Irrit. 2, H315; Aquatic Chronic 2, H411	01-2119432722-45-XXXX

Specific Concentration Limits:
5% ≤ C < 100%: Skin Irrit. 2 H315
5% ≤ C < 100%: Eye Irrit. 2 H319
5% ≤ C < 100%: STOT SE 3 H335

SECTION 4: First aid measures**4.1. Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Eye irritation

Eye damages

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

OEL Type	Country	Ceiling	Long Term mg/m ³	Long Term ppm	Short Term mg/m ³	Short Term ppm	Behaviour	Notes
free crystalline silica (Ø <10 µ)	National SWEDEN CAS: 14808-60-7		0,100					SWEDEN, respirable aerosol
	National NORWAY		0,100					K: Chemicals to be treated as carcinogenic.

NDS	POLAND	2,000	frakcja wdychalna
NDS	POLAND	0,300	frakcja respirabilna
National	DENMARK	0,3	DENMARK, inhalable aerosol
National	DENMARK	0,100	DENMARK, inhalable aerosol
ACGIH		0,025	DENMARK, respirable aerosol
EU		0,025	DENMARK, respirable aerosol
National	AUSTRIA	0,150	A*
ACGIH		0,025	A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis
National	SWEDEN	0,1	
National	FRANCE	0,1	
National	SPAIN	0,05	
National	DENMARK	0,3	
National	FINLAND	0,05	
National	PORTUGAL	0,025	
National	NORWAY	0,3	0,9
National	BELGIUM	0,1	
NDS	POLAND	0,1	
NDS	NETHERLANDS	0,075	
National	CZECH REPUBLIC	0,1	
National	HUNGARY	0,15	
Malaysi	MALAYSIA a OEL	0,1	0.1 mg/m3 TWA (respirable dust)
National	ESTONIA	0,1	
National	SLOVAKIA	0,1	0,5
National	SLOVENIA	0,1	
National	BULGARIA	0,07	
National	ROMANIA	0,1	
National	LITHUANIA	0,1	
National	CROATIA	0,1	
National	ITALY	0,100	
4-	SUVA	0,020	0,020
isocyanatesulphonyltoluene; tosyl isocyanate			
CAS: 4083-64-1			
triphenyl phosphate	ACGIH	3	A4 - Not Classifiable as a Human Carcinogen;cholinesterase inhibition;
CAS: 115-86-6			
National	FRANCE	3	
National	SPAIN	3	
National	GREECE	3	6
National	DENMARK	3	
National	FINLAND	3	6
National	PORTUGAL	3	
National	NORWAY	3	6
National	BELGIUM	3	
Malaysi	MALAYSIA a OEL	3	

National ESTONIA	3					
National SLOVENIA	3					
National UNITED KINGDOM	3		6			
National ROMANIA	2		4			
National CROATIA	3		6			
chlorobenzene CAS: 108-90-7	National SWEDEN	23	5	70	15	SWEDEN, Short-term value, 15 minutes average value
	National FINLAND	23	5	70	15	FINLAND, hud
	National NORWAY	23	5			
	National POLAND	23		70		
DFG GERMANY	C			46	10	
ACGIH			10			A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;liver damage
National SWEDEN	23	5				
EU	23	5	70	15		Indicative
National FRANCE	23	5	70	15		
National SPAIN	23	5	70	15		
National GREECE	23	5	70	15		
National DENMARK	23	5				
National FINLAND	23	5	70	15		
National GERMANY	23	5				
National PORTUGAL	23	5	70	15		
National BELGIUM	23	5	70	15		
NDS POLAND	23					
NDSCh POLAND			70			
CHE SWITZERLAND				92	20	
NDS NETHERLANDS	23		70			
National CZECH REPUBLIC	25					
National HUNGARY	23		70			
Malaysi MALAYSIA a OEL	46	10				
National ESTONIA	23	5	70	15		
National LATVIA	23	5	70	15		
National CZECH REPUBLIC	C			70		
National SLOVAKIA	C			70		
National SLOVAKIA	23	5				
National SLOVENIA	23	5	69	15		
National UNITED KINGDOM	4,7	1	14	3		
National BULGARIA	23,0	5	70,0	15		
National ROMANIA	23	5	70	15		
TUR TURKEY	23	5	70	15		
National LITHUANIA	23	5	70	15		
National CROATIA	23	5	70	15		

Biological limit values

	Value	UoM	Medium	Biological Indicator	Sampling Period
chlorobenzene CAS: 108-90-7	100	MGGCREAT	Urine	Clorocatecolo	End of turn; End of working week
	20	MGGCREAT	Urine	P-chlorophenol	End of turn; End of working week

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; EN ISO 374:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to appropriate EN standards, like EN 136, 140, 143, 149, 14387 for information on selection and use of appropriate respiratory protection equipment.

Hygienic and Technical measures

Not available

Appropriate engineering controls:

Not available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: paste

Color: Beige

Odour: Characteristic

Odour threshold: Not available

Melting point / freezing point: Not available

Initial boiling point and boiling range: Not available

Flammability: N.A.

Upper/lower flammability or explosive limits: Not available

Flash point: Not available

Auto-ignition temperature: Not available

Decomposition temperature: Not available

pH: Not available

Viscosity: 2,000.00 cPs

Kinematic viscosity: Not available

Solubility in water: Insoluble

Solubility in oil: soluble

Partition coefficient (n-octanol/water): Not available

Vapour pressure: Not available

Relative density: Not available

Vapour density: Not available

Particle characteristics:

Particle size: Not available

9.2. Other information

Miscibility: Not available

Conductivity: Not available

Explosive properties: ==

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

2-ethylhexane-1,3-diol; a) acute toxicity LD50 Oral Rat = 2710 mg/kg
octylene glycol

LD50 Skin Rabbit = 2000 mg/kg
LC50 Inhalation > 4800 ppm 8h
LD50 Skin Rabbit = 9,51 ml/kg
LD50 Skin Rabbit = 10,8 ml/kg
LC50 Inhalation Rat > 3,8 mg/l 4h
LD50 Oral Rat = 1400 mg/kg
Eye Irritant Rabbit Positive

free crystalline silica (Ø <10 µ) a) acute toxicity LD50 Oral Rat = 500 mg/kg

4-isocyanatesulphonyltoluene; tosyl isocyanate a) acute toxicity LC50 Inhalation Rat > 640 ppm 1h
LD50 Oral Rat = 2234 mg/kg

triphenyl phosphate a) acute toxicity LD50 Skin Rabbit > 10000 mg/kg
LC50 Inhalation Rat > 200000 mg/m³ 1h
LD50 Oral Rat = 3500 mg/kg

chlorobenzene a) acute toxicity LD50 Oral Rat > 2000 mg/kg
LD50 Skin Rabbit > 7940 mg/kg

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

Based on available data, the classification criteria are not met

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
2-ethylhexane-1,3-diol; octylene glycol	CAS: 94-96-2 - EINECS: 202-377-9 - INDEX: 603-087-00-9	a) Aquatic acute toxicity : EC50 Daphnia = 811 mg/L 24h EPA
triphenyl phosphate	CAS: 115-86-6 - EINECS: 204-112-2	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 0,28 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 0,81 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 0,53 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 0,47 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Oryzias latipes = 1,2 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 0,86 mg/L 48h EPA a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0,6 mg/L 96h EPA
chlorobenzene	CAS: 108-90-7 - EINECS: 203-628-5 - INDEX: 602-033-00-1	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 7 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio = 91 mg/L 96h IUCLID d) Terrestrial toxicity : LC50 Worm Eisenia foetida = 29 mg/cm ² 48h IUCLID a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 4,5 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 6,9 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 4,1 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 4,1 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata 36,35 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 0,59 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 2,55 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 12,5 mg/L 96h EPA

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Hazardous waste: Yes

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

Not Applicable

14.2. UN proper shipping name

Not Applicable

14.3. Transport hazard class(es)

Not Applicable

14.4. Packing group

Not Applicable

14.5. Environmental hazards

Not Applicable

14.6. Special precautions for user

Not Applicable

Road and Rail (ADR-RID):

ADR-Hazard identification number: NA

Not Applicable

Air (IATA):

Not Applicable

Sea (IMDG):

Not Applicable

14.7. Maritime transport in bulk according to IMO instruments

Not Applicable

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : N.A. g/l

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) n. 2020/878

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

None

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 28, 29, 40, 65, 75

SVHC Substances:

SVHC substances not present in a concentration $\geq 0.1\%$ (w/w)

German Water Hazard Class.

Class 2: hazardous for water.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description	
EUH014	Reacts violently with water.	
H226	Flammable liquid and vapour.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H335	May cause respiratory irritation.	
H361d	Suspected of damaging the unborn child.	
H372	Causes damage to organs through prolonged or repeated exposure.	
H400	Very toxic to aquatic life.	
H411	Toxic to aquatic life with long lasting effects.	
Code	Hazard class and hazard category	Description
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.1/1	Resp. Sens. 1	Respiratory Sensitisation, Category 1
3.7/2	Repr. 2	Reproductive toxicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/1	STOT RE 1	Specific target organ toxicity — repeated exposure, Category 1
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

**Classification according to Regulation Classification procedure
(EC) Nr. 1272/2008**

3.3/2

Calculation method

If appropriate, specific provisions in relation to possible training for workers are mentioned in section 2. Any training related to safety in the workplace must in any case refer to a risk assessment that must be carried out by a company safety officer taking into account the specific operating and environmental conditions in which the products are used.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: KAFH

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/A: Not Applicable

N/D: Not defined/ Not available

NA: Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, Bioaccumulative and Toxic

PGK: Packaging Instruction

PNEC: Predicted No Effect Concentration.

PSG: Passengers

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

vPvB: Very Persistent, Very Bioaccumulative.

WGK: German Water Hazard Class.

*** Sheet model entirely changed in compliance to regulatory update.**