

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

COSMO SP-712.110

(COSMOFEN RM Fluid)

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

Relevant identified uses of the substance or mixture:

Resin

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

Weiss Chemie + Technik GmbH & Co. KG

Hansastraße 2

35708 Haiger

Tel: +49 (0) 2773 / 815-0

msds@weiss-chemie.de

www.weiss-chemie.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (WIC)

+1 872 5888271 (WIC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Flam. Liq.	2	H225-Highly flammable liquid and vapour.
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Skin Sens.	1	H317-May cause an allergic skin reaction.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H225-Highly flammable liquid and vapour. H335-May cause respiratory irritation. H315-Causes skin irritation. H317-May cause an allergic skin reaction.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261-Avoid breathing vapours or spray. P280-Wear protective gloves. P303+P361+P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312-Call a POISON CENTRE / doctor if you feel unwell. P403+P235-Store in a well-ventilated place. Keep cool.

Methyl methacrylate

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Methyl methacrylate	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119452498-28-XXXX
Index	607-035-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	201-297-1
CAS	80-62-6
content %	50-<100
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335

N,N-dimethyl-p-toluidine	
Registration number (REACH)	---
Index	612-056-00-9
EINECS, ELINCS, NLP, REACH-IT List-No.	202-805-4
CAS	99-97-8
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 3, H331 Acute Tox. 3, H311 Acute Tox. 3, H301 STOT RE 2, H373 Aquatic Chronic 3, H412

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Dab away with polyethylene glycol 400

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

The following may occur:

Discoloration of the skin

Methaemoglobin formation

4.3 Indication of any immediate medical attention and special treatment needed

If skin, lips or finger nails are discoloured, perform artificial respiration with oxygen.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2

Exinction powder

Water jet spray

Alcohol resistant foam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Toxic gases

Explosive vapour/air or gas/air mixtures.

5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Keep non-essential personnel away.

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0008

Replacing version dated / version: 17.05.2019 / 0007

Valid from: 01.11.2021

PDF print date: 01.11.2021

COSMO SP-712.110

(COSMOFEN RM Fluid)

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Avoid inhalation of the vapours.

Ensure good ventilation.

If applicable, suction measures at the workstation or on the processing machine necessary.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Avoid contact with eyes or skin.

Handle and open container with care.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Observe special storage conditions.

Do not store with flammable or self-igniting materials.

Only fill tanks up to approx. 80% because oxygen (air) is required for stabilisation.

Protect from direct sunlight and warming.

Store cool.

Store in a dry place.

7.3 Specific end use(s)

Resin

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB	Chemical Name	Methyl methacrylate		Content %:50- <100
WEL-TWA: 50 ppm (208 mg/m3) (WEL), 50 ppm (EU)		WEL-STEL: 100 ppm (416 mg/m3) (WEL), 100 ppm (EU)	---	
Monitoring procedures:		<ul style="list-style-type: none">- Compur - KITA-184 S (548 618)- NIOSH 2537 (Methyl and ethyl metacrylate) - 2003 - EU project- BC/CEN/ENTR/000/2002-16 card 109-2 (2004)- OSHA 94 (Methyl Methacrylate) - 1992		
BMGV: ---			Other information: ---	

Methyl methacrylate						
Area of application	Exposure route / Environmental compartment	Effect on health	Description	Value	Unit	Note
	Environment - freshwater		PNEC	0,94	mg/l	
	Environment - marine		PNEC	0,094	mg/l	
	Environment - sediment		PNEC	5,74	mg/kg	
	Environment - soil		PNEC	1,47	mg/kg	
	Environment - sewage treatment plant		PNEC	10	mg/l	
Consumer	Human - inhalation	Long term, local effects	DNEL	105	mg/m3	
Consumer	Human - dermal	Long term, local effects	DNEL	1,5	mg/cm ²	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	74,3	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	8,2	mg/kg bw/day	
Consumer	Human - oral	Long term, local effects	DNEL	1,5	mg/cm ²	
Industrial / commercial	Human - dermal	Long term, local effects	DNEL	1,5	mg/cm ²	
Industrial / commercial	Human - inhalation	Long term, local effects	DNEL	208	mg/m3	
Industrial / commercial	Human - inhalation	Long term, systemic effects	DNEL	208	mg/m3	
Industrial / commercial	Human - dermal	Long term, systemic effects	DNEL	13,67	mg/kg	
Industrial / commercial	Human - dermal	Short term, local effects	DNEL	1,5	mg/cm ²	

N,N-dimethyl-p-toluidine						
Area of application	Exposure route / Environmental compartment	Effect on health	Description	Value	Unit	Note
	Environment - water, sporadic (intermittent) release		PNEC	0,137	mg/l	
	Environment - freshwater		PNEC	0,014	mg/l	
	Environment - marine		PNEC	0,001	mg/l	
	Environment - sediment, freshwater		PNEC	48,245	mg/kg	
	Environment - sediment, marine		PNEC	48,245	mg/kg	
	Environment - sewage treatment plant		PNEC	1,361	mg/l	

	Environment - soil		PNEC	20,365	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,302	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,347	mg/kg body weight/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,174	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1,224	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,694	mg/kg body weight/day	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE).

(14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Solvent resistant protective gloves (EN ISO 374).

Recommended:

Protective gloves in butyl rubber (EN ISO 374).

Minimum layer thickness in mm:

>= 0,7

Permeation time (penetration time) in minutes:

>= 60

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

With short-term contact:

Protective Neoprene® / polychloroprene gloves (EN ISO 374).

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:

Liquid

Colour:

Blue

Odour:

Ester

Melting point/freezing point:

-48 °C

Boiling point or initial boiling point and boiling range:

~100 °C

Flammability:

Flammable

Lower explosion limit:

2,1 Vol.-% (Methyl methacrylate)

Upper explosion limit:

12,5 Vol.-% (Methyl methacrylate)

Flash point:

~10 °C (DIN 51755 (Abel-Pensky, closed cup), Methyl methacrylate)

Auto-ignition temperature:

430 °C (DIN 51794, Methyl methacrylate)

Decomposition temperature:

There is no information available on this parameter.

pH:

n.a.

(COSMOFEN RM Fluid)

Kinematic viscosity:	2 mPas (23°C, Dynamic viscosity)
Solubility:	~10 g/l (20°C)
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	<40 mbar
Density and/or relative density:	~0,95 g/cm3 (20°C)
Relative vapour density:	>1 (20°C)
Particle characteristics:	Does not apply to liquids.

9.2 Other information

Explosives:	Product is not explosive. When using: development of explosive vapour/air mixture possible.
Oxidising liquids:	No
Bulk density:	n.a.

SECTION 10: Stability and reactivity**10.1 Reactivity**

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

Polymerisation possible with:

Radical former (Initiators)

Peroxides

Heavy metal salts

10.4 Conditions to avoid

Heating, open flame, ignition sources

Electrostatic charge

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Avoid contact with strong alkalis.

Avoid contact with strong acids.

10.6 Hazardous decomposition products

No decomposition when used as directed.

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

Possibly more information on health effects, see Section 2.1 (classification).

COSMO SP-712.110**(COSMOFEN RM Fluid)**

Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/k g			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/k g			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/ 4h			calculated value, Vapours
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Methyl methacrylate						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Acute toxicity, by oral route:	LD50	>6000	mg/k g	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/k g	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	29,8	mg/l/ 4h	Rat		Vapours
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant
Respiratory or skin sensitisation:				Human being		Skin Sens. 1
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAE L	2000	ppm	Rat		
Aspiration hazard:						No indications of such an effect.

Symptoms:						breathing difficulties, respiratory distress, drowsiness, drop in blood pressure, coughing, headaches, fatigue, mucous membrane irritation, watering eyes, mental confusion
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAE L	1000	ppm	Mouse		14w, 6h/d, 5d/w

N,N-dimethyl-p-toluidine						
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Skin corrosion/irritation:					OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:						Not sensitizing
Symptoms:						respiratory distress, drop in blood pressure, disturbed heart rhythm, coughing, headaches, cramps, gastrointestinal disturbance, mucous membrane irritation, dizziness, nausea and vomiting.

11.2. Information on other hazards**COSMO SP-712.110****(COSMOFEN RM Fluid)**

Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

COSMO SP-712.110**(COSMOFEN RM Fluid)**

Toxicity / effect	Endpo int	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.

Methyl methacrylate							
Toxicity / effect	Endpo int	Time	Value	Unit	Organism	Test method	Notes

(COSMOFEN RM Fluid)

12.1. Toxicity to fish:	LC50	96h	130	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to algae:	EC50	72h	>110	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	96h	37	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:		7d	37	mg/l	Scenedesmus quadricauda		
12.2. Persistence and degradability:		28d	>95	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,32 -1,38			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

N,N-dimethyl-p-toluidine

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to algae:	ErC50	96h	15,481	mg/l	Chlorella vulgaris		
12.1. Toxicity to daphnia:	EC50	48h	15,259	mg/l	Daphnia magna		
12.1. Toxicity to fish:	LC50	96h	100	mg/l	Brachydanio rerio		
12.1. Toxicity to fish:	LC50	96h	46	mg/l	Pimephales promelas		
12.2. Persistence and degradability:	BOD		5	%			Hardly biodegradable, References Low
12.3. Bioaccumulative potential:	Log Pow		1,73 -2,81				
12.4. Mobility in soil:							No adsorption in soil.
12.5. Results of PBT and vPvB assessment							No PBT substance

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

07 02 08 other still bottoms and reaction residues

08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Do not perforate, cut up or weld uncleaned container.

Residues may present a risk of explosion.

15 01 10 packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

General statements

14.1. UN number or ID number: 1247

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1247 METHYL METHACRYLATE MONOMER, INHIBITED

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Classification code: F1

LQ: 1 L

14.5. Environmental hazards: Not applicable

Tunnel restriction code: D/E

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

METHYL METHACRYLATE MONOMER, STABILIZED

14.3. Transport hazard class(es): 3

14.4. Packing group: II

EMs: F-E, S-D

Marine Pollutant: n.a

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

Methyl methacrylate monomer, stabilized

14.3. Transport hazard class(es): 3

14.4. Packing group: II

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
P5c		5000	50000

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 0 g/l

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1-16

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Flam. Liq. 2, H225	Classification based on test data.
STOT SE 3, H335	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Flam. Liq. — Flammable liquid

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Skin Irrit. — Skin irritation

Skin Sens. — Skin sensitization

Acute Tox. — Acute toxicity - inhalation

Acute Tox. — Acute toxicity - dermal

Acute Tox. — Acute toxicity - oral

STOT RE — Specific target organ toxicity - repeated exposure

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU)

2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

(COSMOFEN RM Fluid)

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX	Adsorbable organic halogen compounds
approx.	approximately
Art., Art. no.	Article number
ASTM	ASTM International (American Society for Testing and Materials)
ATE	Acute Toxicity Estimate
BAM	Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA	Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF	Bioconcentration factor
BSEF	The International Bromine Council
bw	body weight
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR	carcinogenic, mutagenic, reproductive toxic
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
DOC	Dissolved organic carbon
dw	dry weight
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EBLx (x = 10, 50)	Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC	European Community
ECHA	European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100)	Effect Concentration/Level for x % effect
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ErCx, EpCx, ErLx (x = 10, 50)	Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc.	et cetera
EU	European Union
EVAL	Ethylene-vinyl alcohol copolymer
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GWP	Global warming potential
Koc	Adsorption coefficient of organic carbon in the soil
Kow	octanol-water partition coefficient
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC (Code)	International Bulk Chemical (Code)
IMDG-code	International Maritime Code for Dangerous Goods
incl.	including, inclusive
IUCLID	International Uniform Chemical Information Database
IUPAC	International Union for Pure Applied Chemistry
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc	Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow	Logarithm of octanol-water partition coefficient
LQ	Limited Quantities
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.a.	not applicable
n.av.	not available
n.c.	not checked
n.d.a.	no data available
NIOSH	National Institute for Occupational Safety and Health (USA)
NLP	No-longer-Polymer
NOEC, NOEL	No Observed Effect Concentration/Level
OECD	Organisation for Economic Co-operation and Development
org.	organic
OSHA	Occupational Safety and Health Administration (USA)
PBT	persistent, bioaccumulative and toxic
PE	Polyethylene
PNEC	Predicted No Effect Concentration
ppm	parts per million
PVC	Polyvinylchloride
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No.	9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC	Substances of Very High Concern
Tel.	Telephone
TOC	Total organic carbon
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods
VOC	Volatile organic compounds
vPvB	very persistent and very bioaccumulative
wwt	wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.