

1. IDENTIFICATION OF THE SUBSTRATE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name/designation: Monoscreed – Filler/Catalyst.

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

Relevant identified uses: PMMA resin-based compound screed for roofing.

1.3 Supplier details

Alumasc Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, United Kingdom, WA9 4JG
Tel: +44 (0)1744 648400
e-mail: technical@alumascroofing.com

1.4 Emergency telephone number

Association / Organisation: National Poisons Information Service
Emergency telephone numbers: 0344 892 0111 (Healthcare professionals only)
Other emergency telephone numbers: Alumasc Building Products: +44 17 4464 8400
(Mon-Thurs – 08.30-17.00 Fri – 08.30-16.00)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008:

Aquatic Chronic 3; H412.

2.2 Labelling according to Regulation (EU) 1272/2008

Hazard statements: H412: Harmful to aquatic life with long lasting effects.

Precautionary statements: P273: Avoid release to the environment.
P391: Collect spillage.

Further information: EUH208: Contains DIBENZOYL PEROXIDE; May produce an allergic reaction.

2.3 Other hazards

None known.

3. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS

3.1 Substances

Polymethylmethacrylate (PMMA) resin-based compound screed, 2-part kit incl. resin & aggregate.

3.2 Mixture

Ingredient		Classification (EC) 1272/2008	Concentration
Dibenzoyl Peroxide	CAS No: 94-36-0 EC-No: 202-327-6 Index-No: 617-008-00-0 REACH No: 01-2119511472-50-XXXX	Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0.1 - 1.0 % by weight

4. FIRST AID MEASURES

4.1 Description of first aid measures

General:	Move out of dangerous area. Take off all contaminated clothing immediately. Do not leave the victim unattended. Show this safety data sheet to the doctor in attendance.
Inhalation:	If you feel unwell, seek medical advice (show the label where possible).
Skin contact:	Wash off immediately with soap and plenty of water. If skin irritation occurs, seek medical advice/attention.
Eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Call a physician immediately.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), foam, water spray, dry powder.

Unsuitable extinguishing media:

High volume water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.

5.3 Advice for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Additional information:

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from firefighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up

Avoid dust formation. Use mechanical handling equipment. Clean contaminated surface thoroughly. Dispose of in accordance with local regulations.

6.4 Reference to other sections

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Avoid dust formation. Wear personal protective equipment. Handle and open container with care. Avoid contact with skin and eyes.

Precautions: Smoking, eating and drinking should be prohibited in the application area. For personal protection see Section 8. Observe label precautions.

7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements: Keep in properly labelled containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage specifications: Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits:

Dibenzoyl Peroxide:

Great Britain:

Long-term exposure value/ mg/m ³	Source
5	Source: 19 - EH40/2005 Workplace exposure limits (2011).

DNEL:

Value	Target group	Exposure route	Exposure frequency	Source
11,75 mg/m ³	Workers	Inhalation	Long-term effects	100
6,6 mg/kg	Workers	Dermal exposure	Long-term effects	100
2,9 mg/m ³	Consumers	Inhalation	Long-term effects	100
3,3 mg/kg	Consumers	Dermal exposure	Long-term effects	100
1,65 mg/kg	Consumers	Oral	Long-term effects	100

PNEC:

Value	Exposure route	Source
0,000602 mg/l	Freshwater	100
0,338 mg/kg	Freshwater sediment	100
0,000602 mg/l	Marine water	100
0,0338 mg/kg	Marine sediment	100
0,35 mg/l	Waste water pre-treatment	100
6,67 mg/kg	Oral	100

8.2 Exposure controls

Respiratory protection: Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Half mask with a particle filter P2 (EN 143).

Hand protection: Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Unsuitable material: Woven fabric, leather gloves
Suitable material: Nitriles
Material thickness: 0,38 mm
Break through time: 25 min

Eye protection: Tightly fitting safety goggles.

Skin and body protection:	Wear suitable protective equipment. Long sleeved clothing.
General protective and hygiene measures:	Do not breathe dust. Avoid contact with the skin and the eyes. Wash hands before breaks and at the end of workday. Use protective skin cream before handling the product. Keep away from food, drink and animal feeding stuffs.
Engineering measures:	Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Solid.

9.2 Other information

9.2.2 Other safety-related parameters

Evaporation rate [kg/(s*m²)]: Not applicable.

10. STABILITY AND REACTIVITY

10.4 Conditions to avoid

None under normal processing.

11. TOXICOLOGICAL INFORMATION

11.1 Information on the hazard classes within the meaning of Regulation (EU) No. 1272/2008

Hazardous ingredients:

Oral toxicity [mg/kg]
Hazardous ingredients

Dibenzoyl Peroxide:			
Oral toxicity [mg/kg]	Test criterion	Test species	Source
> 5000 mg/kg	LD50	Rat	Company data

Inhalative toxicity [mg/l]
Hazardous ingredients

Dibenzoyl Peroxide:					
Value	Test criterion	Test species	Note	Exposure duration	Source
24,3 mg/l	LC50	Rat	OECD Test Guideline 403	4 hours	Company data

LC50 Inhalation 4h for dusts and sprays [mg/l]
Hazardous ingredients

Dibenzoyl Peroxide:			
Value	Test criterion	Test species	Source
>24,3	LC0	Rat	Company data

Irritant effect on skin:
Hazardous ingredients

Dibenzoyl Peroxide:			
Value	Measuring method	Test species	Source
No skin irritation	OECD Test Guideline	rabbit	Company data

Irritant effect on eyes:
Hazardous ingredients

Dibenzoyl Peroxide:			
Value	Measuring method	Test species	Source
Eye irritation, reversible	OECD Test Guideline	rabbit	Company data

Sensitisation:
Hazardous ingredients

Dibenzoyl Peroxide:			
Value	Measuring method	Test species	Source
Skin sensitization	OECD TG 429	mouse	Company data

Mutagenicity:
Hazardous ingredients

Dibenzoyl Peroxide:		Source
Value		
Did not show mutagenic effects in animal experiments.		Company data

Carcinogenic effects:
Hazardous ingredients

Dibenzoyl Peroxide:		Source
Value		
Did not show carcinogenic effects in animal experiments.		Company data

Reproduction toxicity:
Hazardous ingredients

Dibenzoyl Peroxide:		Source
Value		
No toxicity to reproduction		Company data

Specific target organ toxicity (single exposure) [mg/kg]:
Hazardous ingredients

Dibenzoyl Peroxide:		Source
Value		
no data available		Company data

Specific target organ toxicity (repeated exposure) [mg/kg]:
Hazardous ingredients

Dibenzoyl Peroxide:		Source
Value		
Animal testing did not show any hazardous effects.		Company data

11.2 Additional information

Other information (chapter 11.): No toxicology information is available.
Experience in practice: May cause sensitisation by inhalation.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish [mg/l]
Hazardous ingredients:

Dibenzoyl Peroxide:					
Value	Test criterion	Test species	Measuring method	Exposure duration	Source
0,0602 mg/l	LC50	Oncorhynchus mykiss (Rainbow trout)	OECD Test Guideline 203	96 h	Company data

Toxicity to daphnia [mg/l]

Hazardous ingredients:

Dibenzoyl Peroxide:					
Value	Test criterion	Test species	Exposure duration	Measuring method	Source
0,110 mg/l	EC50	Daphnia magna (Water flea)	48 h	OECD Test Guideline 202	Company data

Toxicity to algae [mg/l]

Hazardous ingredients:

Dibenzoyl Peroxide:					
Value	Test criterion	Test species	Exposure duration	Measuring method	Source
0,0711	EC50	Pseudokirchneriella subcapitata	72 h	OECD Test Guideline 201	Company data

Aquatic toxicity [mg/l]:

Test criterion:

NOEC Mixture: 0,1426 mg/l.

Calculated Guidance on the Application of the CLP Criteria V 5.0 July 207 annex I, 4.1.3.5.2.

Remarks:

Additivity formula Result Aquatic Chronic 3.

12.2 Persistence & degradability

Biodegradability

Hazardous ingredients:

Dibenzoyl Peroxide:				
Biodegradability	Duration	Measuring method	Remarks	Source
68%	28 day(s)	OECD 301D/ EEC 92/69/V, C.4-E	Inherently biodegradable	Company data.

12.3 Bioaccumulative potential

Bioaccumulation

Hazardous ingredients:

Dibenzoyl Peroxide:	
Value	Source
3.2 Bioaccumulation is unlikely.	Company data

12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination

Hazardous ingredients:

Dibenzoyl Peroxide:	
Value	Source
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	Company data

12.7 Other harmful effects

Further information on ecology: We have no quantitative data concerning the ecological effects of this product.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal considerations:

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions:

Waste code:

06 03 16 metallic oxides other than those mentioned in 06 03 15.

Uncleaned empty packaging:

The return of packaging material is to be regulated by the Interseroph system.

14. TRANSPORT INFORMATION

	ADR/RID	IMDG	ICAO/IATA
14.1 UN number	N/A	N/A	N/A
14.2 Description of the goods	Non dangerous good	Non dangerous good	Non dangerous good IATA
14.3 Transport hazard class(es)	N/A	N/A	N/A
14.4 Packaging group	N/A	N/A	N/A
14.5 Environmental hazards	N/A	N/A	N/A
UN proper shipping name	Non dangerous good	Non dangerous good	Non dangerous good

14.6 Special precautions for user

Precautions No special measures are required.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex: Not relevant.
II of MARPOL and the IBC Code.

15. REGULATORY INFORMATION

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

Additional regulations Additionally, observe any national regulations.

16. OTHER INFORMATION

Relevant H-phases:

H241:	Heating may cause a fire or explosion.
H317:	May cause an allergic skin reaction.
H319:	Causes serious eye irritation.
H400:	Very toxic to aquatic life.
H410:	Very toxic to aquatic life with long lasting effects.
H412:	Harmful to aquatic life with long lasting effects.
EUH208:	Contains Dibenzoyl Peroxide. May produce an allergic reaction.

Wording of the hazard classes:

Org. Perox.:	Organic peroxide
Eye Irrit:	Serious eye irritation.
Skin Sens.:	Skin sensitization.
Aquatic Acute:	Hazardous to the aquatic environment.
Aquatic Chronic:	Hazardous to the aquatic environment.

Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]:

Classification	Evaluation
Aquatic Chronic 2; H411	Calculated

Department issuing safety data sheet
Recommended restrictions

Environmental Department
Reserved for industrial and professional use.

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

1. IDENTIFICATION OF THE SUBSTRATE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name/designation: Monoscreed – Resin

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

Relevant identified uses: Void former for use in Blue Roofs.

1.5 Supplier details

Alumasc Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, United Kingdom, WA9 4JG
Tel: +44 (0)1744 648400
e-mail: technical@alumascroofing.com

1.6 Emergency telephone number

Association / Organisation: National Poisons Information Service
Emergency telephone numbers: 0344 892 0111 (Healthcare professionals only)
Other emergency telephone numbers: Alumasc Building Products: +44 17 4464 8400
(Mon-Thurs – 08.30-17.00 Fri – 08.30-16.00)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008:

Flam. Liq. 2; H225 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335.

2.2 Labelling according to Regulation (EU) 1272/2008

Picture:



GHS02

GHS07

Signal word: Danger.

Hazardous component(s) to be Indicated on label: Methyl Methacrylate, 2-Ethylhexyl Acrylate, Ethyl Methacrylate.

Hazard statements:
H225: Highly flammable liquid and vapour.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Precautionary statements:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/ face protection.
P312: Call a POISON CENTER/doctor if you feel unwell.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P337+P313: If eye irritation persists: Get medical advice/ attention.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

3. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS

3.1 Substances

Polymethylmethacrylate (PMMA) resin-based compound screed, 2-part kit incl. resin & aggregate.

3.2 Mixture

Ingredient		Classification (EC) 1272/2008	Concentration
Methyl Methacrylate	CAS No: 80-62-6 EC-No: 201-297-1 Index-No: 607-035-00-6 REACH No: 01-2119452498-28-XXXX	Flam. Liq. 2; H225 STOT SE 3; H335 Skin Irrit. 2; H315 Skin Sens. 1; H317	70.0 - 75.0 % by weight
2-Ethylhexyl Acrylate	CAS No: 103-11-7 EC-No: 203-080-7 Index-No: 607 107-00-7 REACH No: 01-2119453158-37-XXXX	Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Chronic 3; H412	10.0 - 15.0 % by weight
Aliphatic Urethanacrylate		Skin Irrit. 2; H315 Eye Irrit. 2; H319	5.0 - 10.0 % by
1,1'-(P-Tolylimino) Dipropen-2-ol	CAS No: 38668-48-3 EC-No: 254-075-1 REACH No: 01-2119980937-17-XXXX	Acute Tox. 2; H300 Eye Irrit. 2; H319 Aquatic Chronic 3; H412	1.0 - 5.0 % by weight
Ethyl Methacrylate	CAS No: 97-63-2 EC-No: 202-597-5 Index-No: 607-071-00-2 REACH No: 01-2119490215-40-XXXY	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit.2; H315 Skin Sens. 1; H317	0.1 - 1.0 % by weight

4. FIRST AID MEASURES

4.1 Description of first aid measures

General:	Move out of dangerous area. Take off all contaminated clothing immediately. Do not leave the victim unattended. Show this safety data sheet to the doctor in attendance.
Inhalation:	Move to fresh air. If symptoms persist, call a doctor. Show this safety data sheet to the doctor in attendance.
Skin contact:	Wash off immediately with soap and plenty of water whilst removing all contaminated clothes and shoes. If skin irritation occurs, seek medical advice/attention.
Eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	Rinse mouth. DO NOT induce vomiting. Call a doctor immediately.

4.2 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), foam, water spray, dry powder.

Unsuitable extinguishing media:

High volume water jet.

5.2 Special hazards arising from the substance or mixture

Violent polymerisation may be caused by: Extremes of temperature and direct sunlight.
Fire will produce dense black smoke containing hazardous combustion products. Exposure to decomposition products may be a hazard to health.

5.3 Advice for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Additional information:

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire-fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Vapours are heavier than air and may spread along floors. Use personal protective equipment.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated surface thoroughly. Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 13 for disposal considerations.

6.5 Additional information

Treat recovered material as described in the section "disposal considerations".

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling:

Processing may lead to evolution of flammable volatiles. In case of insufficient ventilation, wear suitable respiratory equipment. Keep product and empty container away from heat and sources of ignition. Handle and open container with care. Avoid contact with skin and eyes.

Precautions:

Smoking, eating and drinking should be prohibited in the application area. For personal protection see Section 8. Observe label precautions.

Advice on protection against fire and explosion:

Take precautionary measures against static discharges. Vapours may form explosive mixture with air. Use water spray to cool unopened containers.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with the particular national regulations. Keep in a cool, well-ventilated place.

Keep in properly labelled containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits:

Methyl Methacrylate:

Great Britain:

Long-term exposure value/ ppm	Long-term exposure value/ mg/m ³	Short-term exposure value / ppm	Short-term exposure value / mg/m ³	Source
50	208	100	416	19

Source: 19 - EH40/2005 Workplace exposure limits (2011).

Europe:

Long-term exposure value / ppm	Short-term exposure value / ppm	Issuing date	Source
50	100	2009/161	24

Source: 24 - DIRECTIVE 2009/161/EU.

DNEL:

Value	Target group	Exposure route	Exposure frequency	Source
210 mg/m ³	Workers	Inhalation	Long-term effects local	100
210 mg/m ³	Workers	Inhalation	Long-term effects systemic	100
1,5 mg/cm ²	Workers	Skin	Long-term effects local	100
13,67 mg/kg	Workers	Skin	Long-term effects systemic	100
105 mg/m ³	Consumers	Inhalation	Long-term effects local	100
74,3 mg/m ³	Consumers	Inhalation	Long-term effects, systemic	100
1,5 mg/cm ²	Consumers	Skin	Long-term effects local	100
8,2 mg/kg	Consumers	Skin	Long-term effects systemic	100
1,5 mg/cm ²	Consumers	Skin	Short-term effects local	100

Source: 100 – Company data.

PNEC:

Value	Exposure route	Source
0,94 mg/l	Freshwater	100
0,094 mg/l	Marine water	100
5,74 mg/kg	sediment	100
1,47 mg/kg	Soil	100

Source: 100 – Company data.

2-Ethylhexyl Acrylate:

DNEL:

Value	Target group	Exposure route	Exposure frequency	Source
37,5 mg/m ³	Workers	Inhalation	Long-term effects local	100
0,242 mg/cm ²	Workers	Skin	Long-term effects local	100
0,242 mg/cm ²	Workers	Skin	Short-term effects local	100
4,5 mg/m ³	Consumers	Inhalation	Long-term effects local	100

Source: 100 – Company data.

PNEC:

Value	Exposure route	Source
0,002752 mg/l	Fresh water	100
0,000272 mg/l	Seawater	100
2,3 mg/l	Wastewater treatment plant	100
0,126 mg/kg	Sediment water	100
0,126 mg/kg	Sediment seawater	100
1,0 mg/kg	Soil	100
0,0023 mg/kg	Intermittent release	100

Source: 100 – Company data.

1,1`-(p-Tolylimino) Dipropan-2-OI:

DNEL:

Value	Target group	Exposure route	Exposure frequency	Source
2 mg/m³	Workers	Inhalation	Long-term effects	100
0,6 mg/kg	Workers	Skin	Long-term effects	100

Source: 100 – Company data.

PNEC:

Value	Exposure route	Source
199,5 mg/l	Waste water treatment	100
0,0072 mg/kg	Marine water	100
0,017 mg/l	Freshwater	100

Source: 100 – Company data.

8.2 Exposure controls

Respiratory protection: Vapour during processing may be irritating to the respiratory tract and to the eyes. When workers are facing concentrations above the exposure limit, they must use appropriate certified respirators.

Remarks: Recommended Filter type: A1, A2 (in case of higher concentration).
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

Hand protection: Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Unsuitable material: Woven fabric, Leather gloves.
Suitable material: Nitriles.
Material thickness: 0,38 mm.
Break through time: <25 min.

Eye protection: Tightly fitting safety goggles.

Skin and body protection: Wear suitable protective equipment. Long sleeved clothing.

General protective and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of workday. Use protective skin cream before handling the product. Avoid contact with the skin and the eyes.

Engineering measures: Ensure adequate ventilation, especially in confined areas. When workers are facing concentrations above the exposure limit, they must use appropriate certified respirators.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state/form:	Liquid.
Colour:	Colourless, clear.
Odour:	Small of Methylmethacrylate.
pH:	Not available.
Melting point (°C) / Freezing point (°C):	Not determined.
Boiling range (°C):	> 100°C.
Flash point (°C):	10°C.
Evaporation rate [kg/(s*m²)]:	Not determined.
Explosion limits [Vol-%]:	The product itself has not been tested.
	Methyl Methacrylate
Lower limit:	1,7 vol%.
Upper limit:	12,5 vol%.
	2-Ethylhexyl Acrylate
Lower limit:	0,9 vol%.
Upper limit:	6,4 vol%.
Vapour pressure [kPa]:	47 hPa.
Vapour density:	Not determined.
Density [g/cm³]:	0,94 g/cm³.
Temperature:	20°C.
Water solubility [g/l]:	
Remarks:	Insoluble.
Partition coefficient n-octanol/water (log P O/W):	Not determined.

9.2 Other information

Ignition temperature (°C):	280°C.
Flow time(s):	10 sec.
Temperature:	20°C.
Measuring method:	DIN-cup 4mm.

10. STABILITY AND REACTIVITY

10.1 Possibility of hazardous reactions

The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution. Risk of receptacle bursting.

10.2 Conditions to avoid

Extremes of temperature and direct sunlight.

10.3 Incompatible materials

Reacts violently with peroxides. Reducing agents, strong bases, amines, oxidizing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Hazardous ingredients:

Methyl Methacrylate:

Oral toxicity [mg/kg]	Test criterion	Test species	Measuring method	Source
>5000	LD50	Rat	OECD Test Guideline 401	100

Source: 100 – Company data.

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
>5000	LD50	Rabbit	100

Source: 100 - Company data.

LC50 Inhalation 4h for vapours [mg/l]	Test criterion	Test species	Source
29,8 mg/l	LC50	Rat	100

Source: 100 - Company data.

Irritant effect on skin:	Irritating.
Test species:	Rabbit.
Irritant effect on eyes:	Irritant.
Test species:	Rabbit.
Sensitization:	Skin sensitization.
Test species:	Mouse.
Carcinogenic effects:	Not a carcinogen.
Test species:	Rat, mouse.
Mutagenicity:	Not mutagenic.
Reproduction toxicity:	Not toxic to reproduction.

Specific target organ toxicity (single exposure) [mg/kg]	Source
Causes respiratory tract irritation.	100

Source: 100 - Company data.

Specific target organ toxicity (repeated exposure) [mg/kg]	Source
No known effect.	100

Source: 100 - Company data.

2-Ethylhexyl Acrylate:

Oral toxicity [mg/kg]	Test criterion	Test species	Source
4435 mg/kg	LD50	Rat	100

Source: 100 - Company data.

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
7522 mg/kg	LD50	Rabbit	100

Source: 100 - Company data.

Inhalative toxicity [mg/l]	Test species	Source
1,19 mg/l	Rat	100

Source: 100 - Company data.

Irritant effect on skin:	Skin irritation.
Test species:	Rabbit.
Exposure duration:	4 hours.
Irritant effect on eyes:	Slightly irritating.
Measuring method:	OECD Test Guideline 405.
Test species:	Rabbit.
Sensitization:	Skin sensitization.
Carcinogenic effects:	No known effect.
Mutagenicity:	No known effect.
Reproduction toxicity:	No known effect.

Specific target organ toxicity (single exposure) [mg/kg]	Source
Causes respiratory tract irritation	100

Source: 100 - Company data.

Specific target organ toxicity (repeated exposure) [mg/kg]	Source
No known effect	100

Source: 100 – Company data.

1,1'-(p-Tolylimino)Dipropen-2-ol:

Oral toxicity [mg/kg]	Test criterion	Test species	Source
45 mg/kg	LD50	Rat	100

Source: 100 – Company data.

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
2001 mg/kg	LD50	Rat	100

Source: 100 – Company data.

Irritant effect on skin: No skin irritation.
Irritant effect on eyes: Irritant.
Sensitization: No sensitization responses were observed.
Mutagenicity: Negative.

Aliphatic Urethaneacrylate:

Oral toxicity [mg/kg]	Test criterion	Test species	Source
>2001	LD50	Rat	100

Source: 100 – Company data.

Irritant effect on skin: May cause skin irritation.
Irritant effect on eyes: Causes serious eye irritation.

11.2 Additional information

Experience in practice: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritating to eyes, respiratory system and skin. Irritating to mucous membranes

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Hazardous ingredients:

Methyl Methacrylate:

Toxicity to fish [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
191 mg/l	LC50	Oncorhynchus mykiss (Rainbow trout)	OECD Test Guideline 203	96 h	100

Source: 100 – Company data.

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
69 mg/l	EC50	Daphnia magna (Water flea)	48 h	OECD Test Guideline 202	100

Source: 100 – Company data.

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
>110 mg/l	EC50	Selenastrum capricornutum (Green algae)	72 h	OECD Test Guideline 201	100

Source: 100 – Company data.

NOEC (fish) [mg/l]	Test species	Measuring method	Source
9,4	Brachydanio rerio (Zebra fish)	OECD Test Guideline 210	100

Source: 100 – Company data.

NOEC (daphnia) [mg/l]	Test species	Measuring method	Source
37	Daphnia magna (Water flea)	OECD Test Guideline 202	100

Source: 100 – Company data.

Biodegradability: Readily biodegradable.
Method of analysis: OECD 301C/ ISO 9408/EC 2/69/V, C.4-F.
Bioaccumulation: Does not bioaccumulate.
Mobility: Terrestrial compartment not relevant.

2-Ethylhexyl Acrylate:

Toxicity to fish [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
1,81	LC50	Oncorhynchus mykiss (Rainbow trout)	OECD Test Guideline 203	96 h	100

Source: 100 – Company data.

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
1,3	EC 50	Daphnia magna (Water flea)	48 h	OECD Test Guideline 202	100

Source: 100 – Company data.

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Measuring method	Source
1,71	ErC50	Desmodesmus subspicatus	72 h	OECD Test Guideline 201	100

Source: 100 – Company data.

NOEC (algae) [mg/l]	Test species	Measuring method	Source
0,45	Desmodesmus subspicatus	OECD Test Guideline 201	100

Source: 100 – Company data.

Biodegradability: Readily biodegradable.
Bioaccumulation: Bioaccumulation slight, log Pow 4,64.

1,1'-(p-Tolylimino)Dipropen-2-ol:

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
17	LC50	Brachydanio rerio (Zebra fish)	96 h	100

Source: 100 – Company data.

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
28,8	EC50	Daphnia magna (Water flea)	18 h	100

Source: 100 – Company data.

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
245	EC50	Desmodesmus subspicatus	27 h	100

Source: 100 – Company data.

Biodegradability: Poorly biodegradable.
Bioaccumulation: No data available.

Aliphatic Urethanacrylate:

Toxicity to daphnia [mg/l]	Test criterion	Test species	Source
>100	LC50	Daphnia magna (Water flea)	100

Source: 100 – Company data.

12.2 Persistence & degradability

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.3 Other adverse effects

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal considerations: According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions:
Waste code: 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances.
Uncleaned empty packaging: The return of packaging material is to be regulated by the Interseroph system.

14. TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1 UN number	1263	1263	1263
14.2 Description of the goods	Paint	Paint	Paint
14.3 Transport hazard class(es)	3 	3 	3 
14.4 Packaging group	II	II	II
Risk No.	33		
Category	2		
Factor	3		
Classification code	F1		
SP640	640D		
Tunnel restriction code	D/E		
EmS		F-E;S-E	
Stowage category			

14.5 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. REGULATORY INFORMATION

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

Additional regulations:
Classification in compliance with the Industrial Safety Regulation: Additionally, observe any national regulations!
Highly flammable.
GISCODE: RMA10.

16. OTHER INFORMATION

Relevant H-phases:

H225:	Highly flammable liquid and vapour.
H301:	Toxic if swallowed.
H315:	Causes skin irritation.
H317:	May cause an allergic skin reaction.
H318:	Causes serious eye damage.
H319:	Causes serious eye irritation.
H335:	May cause respiratory irritation.
H412:	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Flam. Liq.:	Flammable liquid.
STOT SE:	Specific target organ toxicity - single exposure.
Skin Irrit.:	Skin irritation.
Skin Sens.:	Skin sensitization.
Aquatic Chronic:	Hazardous to the aquatic environment.
Eye Irrit.:	Serious eye irritation.
Acute Tox.:	Acute toxicity.

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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