

ITW Engineered Polymers

SAFETY DATA SHEET MA310 ADHESIVE

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

1.1. Product identifier

Product name MA310 ADHESIVE
Product number Z0004
REACH registration notes CAS 80-62-6: 01-2119452498-28-XXXX

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

Identified uses Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier ITW Engineered Polymers
Bay 150
Shannon Industrial Estate
Shannon
Co. Clare

+353 (0)61 471 299
+353 (0)61 471 285
mail@itwep.com

1.4. Emergency telephone number

Emergency telephone +44(0)1235 239 670 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 2 - H225
Health hazards Skin Irrit. 2 - H315 Skin Sens. 1 - H317 STOT SE 3 - H335
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R36/37/38. R43. F;R11.

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. 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 vapour/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P501 Dispose of contents/container in accordance with national regulations.
Contains	METHYL METHACRYLATE, MALEIC ACID
Supplementary precautionary statements	P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

METHYL METHACRYLATE		30-60%
CAS number: 80-62-6	EC number: 201-297-1	REACH registration number: 01-2119452498-28-0000
Classification	Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 2 - H225	F;R11 R43 Xi;R37/38	
Skin Irrit. 2 - H315		
Skin Sens. 1 - H317		
STOT SE 3 - H335		

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MALEIC ACID		5-10%
CAS number: 110-16-7	EC number: 203-742-5	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H302	Xn;R22 Xi;R36/37/38 R43	
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Skin Sens. 1 - H317		
STOT SE 3 - H335		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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

General information	Do not breathe vapour/spray. Avoid contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Inhalation	Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media	Extinguish with foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Avoid breathing fire gases or vapours. Highly flammable Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Polymerises easily with evolution of heat.
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5.3. Advice for firefighters

Protective actions during firefighting	Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses.
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Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Highly flammable. Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Do not breathe vapour. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Use only in well-ventilated areas. Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. Take precautionary measures against static discharges. Storage tanks and other containers must be earthed. No smoking, sparks, flames or other sources of ignition near spillage. Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product. Do not use in confined spaces without adequate ventilation and/or respirator. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

METHYL METHACRYLATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

The following protection should be worn: Chemical splash goggles. Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Use protective gloves. It is recommended that gloves are made of the following material: Butyl rubber.

Other skin and body protection

Wear chemical protective suit.

Hygiene measures

Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving workplace.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	White/off-white.
Odour	Slight pungent.
Melting point	-47.7°C
Initial boiling point and range	100.5°C @
Flash point	10°C
Evaporation rate	3 (butyl acetate =1)
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 12.5 Lower flammable/explosive limit: 2.1
Vapour pressure	28mmHg @ °C
Vapour density	3.5
Relative density	.93 - 1.05 @ @ 20 °C°C

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Strong oxidising agents. Strong reducing agents. Alkalis.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not available. May polymerise. Avoid heat.

10.4. Conditions to avoid

Conditions to avoid Heating may generate flammable vapours. Vapours may form explosive mixtures with air. Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Oxidising agents. Reducing agents. Alkalis - inorganic. Alkalis - organic.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Fire or high temperatures create: Vapours/gases/fumes of: Fumaric acid

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 8,333.33

Inhalation Harmful by inhalation. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting. Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.

Ingestion Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. May cause stomach pain or vomiting.

Skin contact May be absorbed through the skin. Irritating to skin. Prolonged contact may cause redness, irritation and dry skin. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Irritating to eyes. A single exposure may cause the following adverse effects: Corneal damage.

Target organs Prolonged or repeated exposure may cause the following adverse effects: May cause damage to the liver and kidneys. Heart & cardiovascular system Respiratory system, lungs Central nervous system

SECTION 12: Ecological Information

Ecotoxicity Avoid release to the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential LC50/96h/fathead minnows = 150 ppm, LC50/96h/bluegill sunfish = 232ppm.

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12.4. Mobility in soil

Mobility Do not discharge into drains or watercourses or onto the ground. Biochemical oxygen demand within 5 days (BOD5) = 0.14g/g - 0.90 g/g; Theoretical oxygen demand (ThOD) = 1.92g/g

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class 08 04 09

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1133

UN No. (IMDG) 1133

UN No. (ICAO) 1133

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ADHESIVES

Proper shipping name (IMDG) ADHESIVES

Proper shipping name (ICAO) ADHESIVES

Proper shipping name (ADN) ADHESIVES

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID subsidiary risk

ADR/RID label 3

IMDG class 3

IMDG subsidiary risk

ICAO class/division 3

ICAO subsidiary risk

Transport labels

14.4. Packing group

ADR/RID packing group II

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IMDG packing group II

ICAO packing group II

14.5. Environmental hazards**14.6. Special precautions for user**

EmS F-E, S-D

Emergency Action Code •3YE

Hazard Identification Number 33
(ADR/RID)

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Water hazard classification WGK 1

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 01/04/2015

Revision 16

Supersedes date 05/12/2014

Risk phrases in full
R11 Highly flammable.
R22 Harmful if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37/38 Irritating to respiratory system and skin.
R43 May cause sensitisation by skin contact.Hazard statements in full
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

ITW Engineered Polymers

SAFETY DATA SHEET MA310 ACTIVATOR

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

1.1. Product identifier

Product name MA310 ACTIVATOR
Product number Z0008
REACH registration notes CAS 80-62-6: 01-2119452498-28-XXXX

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

Identified uses Activator.

1.3. Details of the supplier of the safety data sheet

Supplier ITW Engineered Polymers
Bay 150
Shannon Industrial Estate
Shannon
Co. Clare

+353 (0)61 471 299
+353 (0)61 471 285
mail@itwep.com

1.4. Emergency telephone number

Emergency telephone +44(0)1235 239 670 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 2 - H225
Health hazards Skin Irrit. 2 - H315 Skin Sens. 1 - H317 STOT SE 3 - H335
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R37/38. R43. F;R11.

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H315 Causes skin irritation. H225 Highly flammable liquid and vapour. H317 May cause an allergic skin reaction. 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 vapour/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P501 Dispose of contents/container in accordance with national regulations.
Contains	METHYL METHACRYLATE
Supplementary precautionary statements	P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

METHYL METHACRYLATE	60-100%
CAS number: 80-62-6	EC number: 201-297-1
	REACH registration number: 01-2119452498-28-0000
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 R43 Xi;R37/38
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
STOT SE 3 - H335	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

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General information	Avoid contact with skin and eyes. Do not breathe vapour/spray. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Inhalation	Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Give plenty of water to drink. Get medical attention.
Skin contact	Remove affected person from source of contamination. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Highly flammable Avoid breathing fire gases or vapours. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Polymerises easily with evolution of heat.
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5.3. Advice for firefighters

Protective actions during firefighting	Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of spray mist and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. Avoid inhalation of vapours/spray and contact with skin and eyes. Take precautionary measures against static discharges. Storage tanks and other containers must be earthed. No smoking, sparks, flames or other sources of ignition near spillage. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

METHYL METHACRYLATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection

Wear protective gloves made of the following material: Rubber or plastic.

Other skin and body protection

Wear chemical protective suit.

Hygiene measures

Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving workplace.

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Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Yellow. or Black.
Odour	Slight pungent.
pH	pH (diluted solution): 4.5-5.5 5%
Initial boiling point and range	101°C @
Flash point	10°C
Evaporation rate	3 (butyl acetate =1)
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 12.5 Lower flammable/explosive limit: 2.1
Vapour pressure	28mmHg @ °C
Vapour density	3.5
Relative density	0.96 @ 20 °C°C
Viscosity	40,000 -60,000 cP @ 25°C

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Strong oxidising agents.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. May polymerise.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not available. May polymerise.

10.4. Conditions to avoid

Conditions to avoid Heating may generate flammable vapours. Vapours may form explosive mixtures with air. Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Avoid contact with oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Fire or high temperatures create: Nitrous gases (NOx). Cyanides.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Inhalation	Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
Ingestion	Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.
Skin contact	May be absorbed through the skin. Irritating to skin. Prolonged or repeated exposure may cause severe irritation. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals.
Eye contact	Irritating to eyes. A single exposure may cause the following adverse effects: Corneal damage.
Target organs	Prolonged or repeated exposure may cause the following adverse effects: May cause damage to the liver and kidneys. Respiratory system, lungs Central nervous system

SECTION 12: Ecological Information

Ecotoxicity	Avoid release to the environment.
12.1. Toxicity	
Toxicity	Not considered toxic to fish.
12.2. Persistence and degradability	
Persistence and degradability	Methyl methacrylate monomer : Biochemical oxygen demand within 5 days (BOD5) = .14 g/g - 0.9 g/g.
12.3. Bioaccumulative potential	
Bioaccumulative potential	No data available on bioaccumulation.
12.4. Mobility in soil	
Mobility	Do not discharge into drains or watercourses or onto the ground.
12.5. Results of PBT and vPvB assessment	
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.
12.6. Other adverse effects	
Other adverse effects	Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	When handling waste, the safety precautions applying to handling of the product should be considered.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Waste class	08 04 09

SECTION 14: Transport information

General	No other information known.
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14.1. UN number

UN No. (ADR/RID)	1247
UN No. (IMDG)	1247
UN No. (ICAO)	1247

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	METHYL METHACRYLATE MONOMER, INHIBITED
Proper shipping name (IMDG)	METHYL METHACRYLATE MONOMER, INHIBITED
Proper shipping name (ICAO)	METHYL METHACRYLATE MONOMER, INHIBITED
Proper shipping name (ADN)	METHYL METHACRYLATE MONOMER, INHIBITED

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID subsidiary risk	
ADR/RID label	3
IMDG class	3
IMDG subsidiary risk	
ICAO class/division	3
ICAO subsidiary risk	

Transport labels

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
Emergency Action Code	3YE
Hazard Identification Number (ADR/RID)	339
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

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

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Water hazard classification	WGK 1 WGH Nr:1252

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	01/04/2015
Revision	9
Supersedes date	24/11/2014
Risk phrases in full	R11 Highly flammable. R37/38 Irritating to respiratory system and skin. R43 May cause sensitisation by skin contact.
Hazard statements in full	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.