

ITW Engineered Polymers

SAFETY DATA SHEET MA320 ADHESIVE.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name MA320 ADHESIVE.
Product No. Z0001

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

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

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Flam. Liq. 2 - H225
Human health Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; STOT SE 3 - H335
Environment Not classified.

Classification (1999/45/EEC)

Xi; R36/37/38. R43. F; R11.

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

2.2. Label elements

Contains METHYL METHACRYLATE
Label In Accordance With (EC) No. 1272/2008



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.

Supplementary Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... 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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P313	Get medical advice/attention.
P321	Specific treatment (see ... on this label).
P332+313	If skin irritation occurs: Get medical advice/attention.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P337	If eye irritation persists:
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370+378	In case of fire: Use ... for extinction.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P403+235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to ...

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

METHACRYLIC ACID	1-5%
CAS-No.: 79-41-4	EC No.: 201-204-4
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1A - H314 STOT SE 3 - H335	Classification (67/548/EEC) C;R35 Xn;R21/22
METHYL METHACRYLATE	60-100%
CAS-No.: 80-62-6	EC No.: 201-297-1
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 STOT SE 3 - H335	Classification (67/548/EEC) F;R11 R43 Xi;R37/38

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

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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 label where possible).

Inhalation

Move the exposed person to fresh air at once. Contact physician if discomfort continues.

Ingestion

Do not induce vomiting. Drink plenty of water. Get medical attention.

Skin contact

Remove affected person from source of contamination. Wash skin thoroughly with soap and water for several minutes. Contact physician if irritation persists.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

Contact physician if irritation persists.

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

Irritation of nose, throat and airway.

Ingestion

May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Skin contact

Mild dermatitis, allergic skin rash. Prolonged skin contact may cause redness and irritation.

Eye contact

Irritation of eyes and mucous membranes.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Highly flammable Avoid breathing fire vapours. May travel considerable distance to source of ignition and flash back. Polymerises generating heat.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Keep up-wind to avoid fumes. Avoid water in straight hose stream; will scatter and spread fire. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Warn everybody of potential hazards and evacuate if necessary. Remove sources of ignition. Avoid inhalation of spray mist and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

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6.3. Methods and material for containment and cleaning up

Absorb spillage with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. 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

Use only in well-ventilated areas. Avoid contact with skin and eyes. Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Take precautionary measures against static discharges. Storage tanks and other containers must be grounded. Do not smoke, use open fire or other sources of ignition. Do not eat, drink or smoke when using the product. Observe good chemical hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame.

7.3. 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
METHACRYLIC ACID	WEL	20 ppm	72 mg/m3	40 ppm	143 mg/m3	
METHYL METHACRYLATE	WEL	50 ppm	208 mg/m3	100 ppm	416 mg/m3	

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash, quick drench.

Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

Hand protection

Use protective gloves made of: Rubber or plastic.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

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Hygiene measures

Keep away from food, drink and animal feeding stuffs. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving work place.

Skin protection

Wear apron or protective clothing in case of contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Paste
Colour	White / off-white.
Odour	Slightly pungent odour.
Initial boiling point and boiling range (°C)	101
Melting point (°C)	-47.7
Relative density	0.93 - 1.05 @ 20 °C
Vapour density (air=1)	>1
Vapour pressure	28mmHg 20
Evaporation rate	3 (butyl acetate=1)
pH-Value, Conc. Solution	7 @ 20 °C
Viscosity	135, 000-175, 000 cP 25
Flash point (°C)	10
Flammability Limit - Lower(%)	1.7
Flammability Limit - Upper(%)	12.5

9.2. Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reaction with: Strong oxidising agents. Strong reducing agents.

10.2. Chemical stability

May polymerise.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

May polymerise.

10.4. Conditions to avoid

Heating will generate vapours which may form explosive vapour/air mixtures. 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 oxidisers or reducing agents. Bases, alkalis (inorganic). Bases, alkalis (organic).

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxic Dose 1 - LD 50

>2, 000 mg/kg (oral rat)

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Inhalation

Vapours may cause headache, fatigue, dizziness and nausea. In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects.

Ingestion

Irritating. May cause nausea, stomach pain and 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. Risk of sensitisation or allergic reactions among sensitive individuals.

Eye contact

Irritating to eyes. Risk of corneal damage.

Target Organs

Prolonged or repeated exposure may cause: May cause damage to the liver and kidneys. Respiratory system, lungs Central nervous system Prolonged or repeated inhalation may cause: May cause an asthma-like shortness of breath.

Toxicological information on ingredients.

METHYL METHACRYLATE (CAS: 80-62-6)

Toxic Dose 1 - LD 50

7872 mg/kg (oral rat)

Toxic Conc. - LC 50

7093 ppm/4h (inh-rat)

METHACRYLIC ACID (CAS: 79-41-4)

Toxic Dose 1 - LD 50

1060 mg/kg (oral rat)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

12.1. Toxicity

Acute Fish Toxicity

Not considered toxic to fish.

12.2. Persistence and degradability

Degradability

Methyl methacrylate monomer : Biochemical oxygen demand within 5 days (BOD5) = .14 g/g - 0.9 g/g.

12.3. Bioaccumulative potential

Bioaccumulative potential

Methyl methacrylate monomer: LC50/96h/fathead minnows = 150 ppm, LC50/96h/bluegill sunfish = 232ppm. Methyl methacrylate monomer: LC50/96h/rainbow trout = >79mg/l

12.4. Mobility in soil

Mobility:

Do not discharge into drains, water courses or onto the ground.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

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Waste Class
08 04 09

SECTION 14: TRANSPORT INFORMATION

General No other information noted.

14.1. UN number

UN No. (ADR/RID/ADN)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133

14.2. UN proper shipping name

Proper Shipping Name ADHESIVES

14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3
Transport Labels	



14.4. Packing group

ADR/RID/ADN 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 No. (ADR)	33

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

No information required.

SECTION 15: REGULATORY INFORMATION

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

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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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Water hazard classification

WGK 1

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date	11/02/2015
Revision	10
Supersedes date	27/11/2014
Date	27-11-14
Risk Phrases In Full	
R35	Causes severe burns.
R21/22	Harmful in contact with skin and if swallowed.
R11	Highly flammable
R36/37/38	Irritating to eyes, respiratory system and skin.
R37/38	Irritating to respiratory system and skin.
R37	Irritating to respiratory system.
R43	May cause sensitisation by skin contact.
Hazard Statements In Full	
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Disclaimer

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.

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SAFETY DATA SHEET MA320/MA3940 EU ACTIVATOR

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name MA320/MA3940 EU ACTIVATOR

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

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

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317
Environment	Aquatic Chronic 3 - H412

Classification (1999/45/EEC)

Xi; R36/38. R43. R52/53.

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

2.2. Label elements

Contains BENZOYL PEROXIDE
EPOXY RESIN (Number average MW <= 700)
Reaction product of Epichlorohydrin & Bisphenol A

Label In Accordance With (EC) No. 1272/2008



Signal Word

Warning

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

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Precautionary Statements

P280 P305+351+338	Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
P313 P501	Dispose of contents/container to ...

Supplementary Precautionary Statements

P272 P273 P261 P264 P321 P302+352 P332+313 P333+313 P337 P362 P363	Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Avoid breathing vapour/spray. Wash contaminated skin thoroughly after handling. Specific treatment (see medical advice on this label). IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.
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Supplemental label information

EUH205	Contains epoxy constituents. May produce an allergic reaction.
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2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<p>BENZOYL PEROXIDE 10-30%</p> <p>CAS-No.: 94-36-0 EC No.: 202-327-6</p>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Classification (EC 1272/2008) Org. Perox. B - H241 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 </td> <td style="width: 50%;"> Classification (67/548/EEC) E;R3 O;R7 Xi;R36 R43 </td> </tr> </table>	Classification (EC 1272/2008) Org. Perox. B - H241 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) E;R3 O;R7 Xi;R36 R43
Classification (EC 1272/2008) Org. Perox. B - H241 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) E;R3 O;R7 Xi;R36 R43	
<p>EPOXY RESIN (Number average MW <= 700) 10-30%</p> <p>CAS-No.: 25068-38-6 EC No.: 500-033-5</p>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411 </td> <td style="width: 50%;"> Classification (67/548/EEC) R43 Xi;R36/38 N;R51/53 </td> </tr> </table>	Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	Classification (67/548/EEC) R43 Xi;R36/38 N;R51/53
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	Classification (67/548/EEC) R43 Xi;R36/38 N;R51/53	
<p>POLYALKYLENE GLYCOL MONOBUTYL ETHER 1-5%</p> <p>CAS-No.: 9038-95-3 EC No.:</p>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Classification (EC 1272/2008) Not classified. </td> <td style="width: 50%;"> Classification (67/548/EEC) Xi;R36/38. </td> </tr> </table>	Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xi;R36/38.
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xi;R36/38.	

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Reaction product of Epichlorohydrin & Bisphenol A		10-30%
CAS-No.: 25085-99-8	EC No.: 500-033-5	
Classification (EC 1272/2008)	Classification (67/548/EEC)	
Skin Irrit. 2 - H315	Xi;R36,R38.	
Eye Irrit. 2 - H319	N;R51/53.	
Skin Sens. 1 - H317	R43.	
Aquatic Chronic 2 - H411		

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

Inhalation

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

Ingestion

Get medical attention immediately! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

Upper respiratory irritation. Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

Burning sensation in mouth. May cause stomach pain or vomiting.

Skin contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Mild dermatitis, allergic skin rash.

Eye contact

Irritating and may cause redness and pain. Conjunctivitis, irritation, tearing.

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with carbon dioxide or dry powder. Do not use water jet as an extinguisher, as this will spread the fire.

Unsuitable extinguishing media

Foam. Water spray.

5.2. Special hazards arising from the substance or mixture

Specific hazards

In case of fire, toxic gases may be formed (COx, NOx).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Water spray should be used to cool containers. Containers close to fire should be removed immediately or cooled with water. Keep run-off water out of sewers and water sources. Dike for water control.

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Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Do not smoke, use open fire or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Do not discharge onto the ground or into water courses.

6.3. Methods and material for containment and cleaning up

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb spillage with non-combustible, absorbent material. Collect in containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat, sparks and open flame. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Store in closed original container at temperatures between 0°C and 40°C.

7.3. 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
BENZOYL PEROXIDE	WEL		5 mg/m ³			

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash, quick drench.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapour cartridge.

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Hand protection

Protective gloves should be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. (EN 374)

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

Hygiene measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

Skin protection

Protection suit must be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Odour	Slight odour.
Solubility	Slightly soluble in water.
Initial boiling point and boiling range (°C)	Not determined.
Melting point (°C)	Not determined.
Relative density	1.0-1.25
Vapour density (air=1)	Not determined.
Vapour pressure	Not determined.
Flash point (°C)	>93.3
Auto Ignition Temperature (°C)	Not determined.
Flammability Limit - Lower(%)	Not determined.
Flammability Limit - Upper(%)	Not determined.

9.2. Other information

Volatile Organic Compound (VOC)

Not determined.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reacts violently with strong oxidising substances.

10.2. Chemical stability

Unstable.

10.3. Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Avoid exposing to heat and contact with strong oxidising substances. Avoid contact with acids and alkalis.

10.5. Incompatible materials

Materials To Avoid

Strong alkalis. Strong oxidising substances. Strong acids.

10.6. Hazardous decomposition products

Not known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

Irritating to respiratory system. Vapours may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

Ingestion

May cause internal injury. Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. Gastrointestinal symptoms, including upset stomach.

Skin contact

Irritating to skin. Prolonged and frequent contact may cause redness and irritation. May cause sensitisation by skin contact.

Eye contact

Irritating to eyes. Repeated exposure may cause chronic eye irritation.

Health Warnings

Preparation contains an epoxy resin, which may cause sensitisation and development of allergy.

Route of entry

Inhalation. Ingestion. Skin and/or eye contact.

Target Organs

Eyes Skin Respiratory system, lungs

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.1. Toxicity

Not determined.

12.2. Persistence and degradability

Degradability

The degradability of the product has not been stated.

12.3. Bioaccumulative potential

Bioaccumulative potential

Not determined.

12.4. Mobility in soil

Mobility:

The product is partly soluble in water. May spread in the aquatic environment.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

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Waste Class

08 04 99

SECTION 14: TRANSPORT INFORMATION

General The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Transport Labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Not applicable.

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date	11/02/2015
Revision	2
Supersedes date	26/11/2014
Date	26-11-2014

MA320/MA3940 EU ACTIVATOR

Risk Phrases In Full

R3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36/38	Irritating to eyes and skin.
R36	Irritating to eyes.
R38	Irritating to skin.
R7	May cause fire.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

H241	Heating may cause a fire or explosion.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Disclaimer

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 MA320 White/MA550 EU Activator

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

1.1. Product identifier

Product name MA320 White/MA550 EU Activator

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 Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

Classification (67/548/EEC or 1999/45/EC) Xi;R36/38. R43. R52/53.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

MA320 White/MA550 EU Activator

Precautionary statements	<p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>
Contains	Reaction product of Epichlorohydrin & Bisphenol A, EPOXY RESIN (Number average MW <= 700), BENZOYL PEROXIDE, DIBUTYL MALEATE
Supplementary precautionary statements	<p>P261 Avoid breathing vapour/spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p>

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Reaction product of Epichlorohydrin & Bisphenol A	10-30%
CAS number: 25085-99-8	EC number: 500-033-5
Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315	Xi;R36,R38. N;R51/53. R43.
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
BENZOYL PEROXIDE	10-30%
CAS number: 94-36-0	EC number: 202-327-6
Classification	Classification (67/548/EEC or 1999/45/EC)
Org. Perox. B - H241	E;R3 O;R7 Xi;R36 R43
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
EPOXY RESIN (Number average MW <= 700)	10-30%
CAS number: 25068-38-6	EC number: 500-033-5
	REACH registration number: 01-2119456619-26-0000
Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315	R43 Xi;R36/38 N;R51/53
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	

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DIBUTYL MALEATE	1-5%
CAS number: 105-76-0	
Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Sens. 1 - H317	-

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

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Get medical attention immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. 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.

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.
Inhalation	Upper respiratory irritation. Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	Burning sensation in mouth. May cause stomach pain or vomiting.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Mild dermatitis, allergic skin rash.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Conjunctivitis, irritation, tearing.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with carbon dioxide or dry powder. Do not use water jet as an extinguisher, as this will spread the fire.
Unsuitable extinguishing media	Foam. Water spray.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m ³ . Oxides of carbon. Oxides of nitrogen.
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5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Containers close to fire should be removed or cooled with water. Control run-off water by containing and keeping it out of sewers and watercourses.
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MA320 White/MA550 EU Activator

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 No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. 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 For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Avoid contact with skin and eyes.

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. Store in closed original container at temperatures between 0°C and 40°C.

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

BENZOYL PEROXIDE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

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

Wear chemical splash goggles.

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Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. (EN 374)
Other skin and body protection	Wear chemical protective suit.
Hygiene measures	Provide eyewash station and safety shower. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.
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	Viscous liquid.
Odour	Slight.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	>93.3°C
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.0-1.25 @ °C
Solubility(ies)	Slightly soluble in water.
Auto-ignition temperature	Not determined.

9.2. Other information

Volatile organic compound	Not determined. This product contains a maximum VOC content of .
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SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Unstable.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat. Avoid contact with the following materials: Strong oxidising agents. Avoid contact with acids and alkalis.
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10.5. Incompatible materials

MA320 White/MA550 EU Activator

Materials to avoid Strong alkalis. Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Not known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation	Irritating to respiratory system. Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing.
Ingestion	May cause internal injury. Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. Gastrointestinal symptoms, including upset stomach.
Skin contact	Irritating to skin. Prolonged and frequent contact may cause redness and irritation. May cause sensitisation by skin contact.
Eye contact	Irritating to eyes. Repeated exposure may cause chronic eye irritation.
Acute and chronic health hazards	The product contains an epoxy resin. May cause sensitisation or allergic reactions in sensitive individuals.
Route of entry	Inhalation Ingestion. Skin and/or eye contact
Target organs	Eyes Skin Respiratory system, lungs

SECTION 12: Ecological Information

Ecotoxicity The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Not determined.

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

Bioaccumulative potential Not determined.

12.4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

MA320 White/MA550 EU Activator

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 99

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

UN No. (IMDG)

UN No. (ICAO)

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

ADR/RID class

ADR/RID subsidiary risk

ADR/RID label

IMDG class

IMDG subsidiary risk

ICAO class/division

ICAO subsidiary risk

Transport labels

14.4. Packing group

Not applicable.

ADR/RID packing group

IMDG packing group

ICAO packing group

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

EmS

Emergency Action Code

**Hazard Identification Number
(ADR/RID)**

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

MA320 White/MA550 EU Activator

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

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).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	22/04/2015
Revision	1
SDS number	20610
Risk phrases in full	R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition. R36 Irritating to eyes. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R43 May cause sensitisation by skin contact. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R7 May cause fire.
Hazard statements in full	H241 Heating may cause a fire or explosion. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

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