SAFETY DATA SHEET
MA2045 ADHESIVE

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

1.1. Product identifier

Product name MA2045 ADHESIVE

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 Performance Polymers
Bay 150
Shannon Industrial Estate
Co. Clare
Ireland
V14 DF82
353(61)771500
353(61)471285
mail@itwpp.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 (EC 1272/2008)

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram

Signal word Danger

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.
H411 Toxic to aquatic life with long lasting effects.
MA2045 ADHESIVE

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapour/ spray.
P273 Avoid release to the environment.
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.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contains

METHYL METHACRYLATE, DODECYL METHACRYLATE, METHACRYLIC 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.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: 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.
P391 Collect spillage.
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.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>METHYL METHACRYLATE</th>
<th>30-60%</th>
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<tr>
<td>CAS number: 80-62-6</td>
<td>EC number: 201-297-1</td>
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<tr>
<td>REACH registration number: 01-2119452498-28-0000</td>
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</table>

Classification

Flam. Liq. 2 - H225
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
STOT SE 3 - H335
MA2045 ADHESIVE

### DODECYL METHACRYLATE

<table>
<thead>
<tr>
<th>CAS number: 142-90-5</th>
<th>EC number: 205-570-6</th>
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</thead>
</table>

**M factor (Acute)** = 1  
**M factor (Chronic)** = 1

**Classification**
- Skin Irrit. 2 - H315  
- Eye Irrit. 2 - H319  
- STOT SE 3 - H335  
- Aquatic Acute 1 - H400  
- Aquatic Chronic 1 - H410

### METHACRYLIC ACID

<table>
<thead>
<tr>
<th>CAS number: 79-41-4</th>
<th>EC number: 201-204-4</th>
<th>REACH registration number: 01-2119463884-26-0000</th>
</tr>
</thead>
</table>

**Classification**
- Acute Tox. 4 - H302  
- Acute Tox. 4 - H312  
- Skin Corr. 1A - H314  
- Eye Dam. 1 - H318  
- STOT SE 3 - H335

### TRIMETHYLOLPROPANE, TRIMETHACRYLATE ESTERS

<table>
<thead>
<tr>
<th>CAS number: 3290-92-4</th>
</tr>
</thead>
</table>

**Classification**
- Aquatic Chronic 2 - H411

The full text for all hazard statements is displayed in Section 16.

**SECTION 4: First aid measures**

4.1. Description of first aid measures

**General information**
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. For breathing difficulties, oxygen may be necessary. Get medical attention if any discomfort continues.

**Ingestion**
Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.

**Skin contact**
Remove contaminated clothing immediately and wash skin 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 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.
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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Extinguish with the following media: Carbon dioxide (CO2). Dry chemicals. Foam. Water spray.

Unsuitable extinguishing media: Do not use water, if avoidable.

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/m3.

5.3. Advice for firefighters

Protective actions during firefighting: Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes.

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: 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. Avoid contact with skin and eyes. Use suitable respiratory protection if ventilation is inadequate.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or watercourses or onto the ground. 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: Provide adequate ventilation. Keep away from heat, sparks and open flame. Handle and open container with care. Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product. 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.

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. Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10).

7.3. Specific end use(s)
MA2045 ADHESIVE

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

METHACRYLIC ACID
Long-term exposure limit (8-hour TWA): WEL 20 ppm  72 mg/m³
Short-term exposure limit (15-minute):  WEL 40 ppm  143 mg/m³
WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment

Provide adequate general and local exhaust ventilation.

Appropriate engineering controls

Eye/face protection

The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Use protective gloves. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Wear chemical protective suit.

Hygiene measures

Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Wash promptly if skin becomes contaminated.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Gas filter, type A2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Paste.

Colour

White/off-white.

pH

pH (diluted solution): 7

Melting point

-47.7°C

Initial boiling point and range

100.5°C @

Flash point

10 degree C°C TCC (Tag closed cup).
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Evaporation rate 3 (Butyl Acetate=1)
Vapour pressure 28 mm Hg @ °C
Vapour density >1
Relative density 0.93 - 1.05 @ °C
Auto-ignition temperature Not determined.

9.2. Other information
Other information Not available.
Vapour density >1
Volatile organic compound This product contains a maximum VOC content of <50 g/litre.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity Strong oxidising agents. Amines.

10.2. Chemical stability
Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid
Conditions to avoid 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

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. Aldehydes. Acids.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
ATE oral (mg/kg) 1,666,667.0

Acute toxicity - dermal
ATE dermal (mg/kg) 3,666,667.0

Inhalation No significant hazard at normal ambient temperatures. Heating may generate the following products: Irritating gases or vapours.

Ingestion Nausea, vomiting. Diarrhoea.

Skin contact Irritating to skin. May cause sensitisation by skin contact. Prolonged or repeated exposure may cause severe irritation. May cause sensitisation or allergic reactions in sensitive individuals.
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Eye contact
Irritating to eyes. Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

Acute and chronic health hazards
The product contains an epoxy resin. May cause sensitisation or allergic reactions in sensitive individuals.

SECTION 12: Ecological Information

Ecotoxicity
Avoid releasing into the environment.

12.1. Toxicity
Toxicity
Not considered toxic to fish.

Acute toxicity - fish
LC₅₀, 96 hours: BPO:96 hr, LC50 GUPPY (SEMI-STATIC)=2.0 mg/l mg/l, Algae

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

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 99

SECTION 14: Transport information

General
No other information known.

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
MA2045 ADHESIVE

Proper shipping name (ICAO) ADHESIVES
Proper shipping name (ADN) ADHESIVES

14.3. Transport hazard class(es)
ADR/RID class 3
ADR/RID label 3
IMDG class 3
ICAO class/division 3

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) 33
Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk according to Annex II of MARPOL 73/78 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

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 05/04/2018
Revision 5
MA2045 ADHESIVE

Supersedes date 08/09/2017
SDS number 20615

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.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

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.