1. Identification

Product identifier
Product name  MA832 ADHESIVE

Recommended use of the chemical and restrictions on use
Application  Adhesive.

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

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

2. Hazard(s) identification

Classification of the substance or mixture
Physical hazards  Flam. Liq. 2 - H225
Health hazards  Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317 STOT SE 3 - H335
Environmental hazards  Not Classified

Label elements
Pictogram

Signal word  Danger

Hazard statements  H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
MA832 ADHESIVE

Precautionary statements

- P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
- 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.
- P261 Avoid breathing vapor/ spray.
- P264 Wash contaminated skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P302+P352 If on skin: Wash with plenty of water.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 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/ 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.
- 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.

Contains

- METHYL METHACRYLATE, 2-PROPENOIC ACID, 2-METHYL-2-HYDROXYETHYL ESTER, PHOSPHATE, METHACRYLIC ACID, ROSIN

Other hazards

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

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixtures</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL METHACRYLATE</td>
</tr>
<tr>
<td>CAS number: 80-62-6</td>
</tr>
<tr>
<td>30-60%</td>
</tr>
</tbody>
</table>

Classification

- Flam. Liq. 2 - H225
- Skin Irrit. 2 - H315
- Skin Sens. 1 - H317
- STOT SE 3 - H335
MA832 ADHESIVE

2-PRENOIC ACID,2-METHYL-2-HYDROXYETHYL ESTER, PHOSPHATE

CAS number: 52628-03-2

Classification
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1A - H317

METHACRYLIC ACID

CAS number: 79-41-4

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

ROSIN

CAS number: 8050-09-7

Classification
Skin Sens. 1 - H317

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

4. First-aid measures

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. Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Drink a few glasses of water or milk. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

Skin Contact
Remove affected person from source of contamination. Immediately remove contaminated clothing. Rinse immediately with plenty of water. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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.

Indication of immediate medical attention and special treatment needed

Notes for the doctor
No specific recommendations. If in doubt, get medical attention promptly.
5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Extinguish with foam, carbon dioxide or dry powder.

Special hazards arising from the substance or mixture

Specific hazards
In case of fire, toxic and corrosive gases may be formed. Containers can burst violently or explode when heated, due to excessive pressure build-up. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Advice for firefighters

Protective actions during firefighting
Keep upwind. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Fight advanced or massive fires from safe distance or protected location. Warn everybody of potential hazards and evacuate if necessary.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Do not touch or walk into spilled material. Warn everybody of potential hazards and evacuate if necessary. Eliminate all sources of ignition. Provide adequate ventilation.

Environmental precautions

Environmental precautions
Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

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 labeled with correct contents and hazard symbol.

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.

7. Handling and storage

Precautions for safe handling

Usage precautions
Do not breathe vapor/spray. Avoid contact with skin and eyes. 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. Keep away from sources of ignition - No smoking. Static electricity and formation of sparks must be prevented. Storage tanks and other containers must be grounded. Container must be kept tightly closed when not in use.

Conditions for safe storage, including any incompatibilities

Storage precautions
Protect against direct sunlight. Keep container tightly closed, in a cool, well ventilated place. Store away from incompatible materials (see Section 10).

Specific end use(s)
The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection
MA832 ADHESIVE

Control parameters

Occupational exposure limits

ROSIN

RSens, DSens

RSens = Respiratory sensitizer.

DSens = Dermal sensitizer.

Ingredient comments

WEL = Workplace Exposure Limits

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. The following protection should be worn: Chemical splash goggles and face shield. Personal protective equipment for eye and face protection should comply with OSHA 1910.133.

Hand protection

It is recommended that gloves are made of the following material: Butyl rubber. 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. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection

Wear apron or protective clothing in case of contact.

Hygiene measures

Provide eyewash station and safety shower. Promptly remove any clothing that becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

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: Organic vapor filter. Gas filter, type A2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance

Paste.

Color

White/off-white.

Odor

Aromatic.

Melting point

-48°C

Initial boiling point and range

>93°C @

Flash point

10°C

Evaporation rate

3
MA832 ADHESIVE

Vapor density >1
Relative density 0.99 @ °C

Volatile organic compound This product contains a maximum VOC content of <50 mixed g/litre.

10. Stability and reactivity

Reactivity There are no known reactivity hazards associated with this product.
Stability Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions May polymerize.
Conditions to avoid Keep away from heat, sparks and open flame. Avoid contact with oxidizing agents. Oxygen-free atmospheres

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral
ATE oral (mg/kg) 20,008.0

Acute toxicity - dermal
ATE dermal (mg/kg) 44,017.61

Inhalation Gas or vapor in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.
Ingestion Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract. Liquid irritates mucous membranes and may cause abdominal pain if swallowed.
Skin Contact May cause skin irritation/eczema. May cause sensitisation by skin contact. May be absorbed through the skin.
Eye contact This product is corrosive. This product may cause skin and eye irritation. Prolonged contact may cause burns. Irritation, burning, lachrymation, blurred vision after liquid splash.
Acute and chronic health hazards Prolonged or repeated exposure may cause severe irritation.
Route of entry Skin and/or eye contact Skin absorption Inhalation

12. Ecological Information

Ecotoxicity Do not release into the environment.
Toxicity Not considered toxic to fish.
Persistence and degradability The degradability of the product is not known.
MA832 ADHESIVE

Bioaccumulative potential
Bio-Accumulative Potential No data available on bioaccumulation.

Mobility in soil
Mobility Avoid the spillage or runoff entering drains, sewers or watercourses.

Other adverse effects
Other adverse effects Not available.

13. Disposal considerations

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

14. Transport information

General No other information known.

UN Number
UN No. (TDG) 1133
UN No. (IMDG) 1133
UN No. (ICAO) 1133
UN No. (DOT) 1133

UN proper shipping name
Proper shipping name (TDG) ADHESIVES
Proper shipping name (IMDG) ADHESIVES
Proper shipping name (ICAO) ADHESIVES
Proper shipping name (DOT) ADHESIVES

Transport hazard class(es)
TDG class 3
TDG label(s) 3
IMDG Class 3
ICAO class/division 3

Transport labels

Packing group
TDG Packing Group II
IMDG packing group II
MA832 ADHESIVE

ICAO packing group  II
DOT packing group  II

Environmental hazards
Environmentally Hazardous Substance
No.

Special precautions for user
EmS  F-E, S-D

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

15. Regulatory information

16. Other information

Revision date  4/5/2018
Revision  10
Supersedes date  1/18/2018

Hazard statements in full
H225 Highly flammable liquid and vapor.
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.

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.