

# Material Safety Data Sheet

according to 91/155/EEC

**Product name :** Rep-kit  
**Revision :** 15.11.2011  
**Print date :** 24/06/2015  
**Version :** 5.0.0

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## 01. Identification of the preparation and the company

### Trade Name

Rep-kit

### Product use

Reactive resin based on methyl methacrylate

### Manufacturer

Widopan Limited  
Systems House  
Horndon Industrial Park  
West Horndon,  
Brentwood, Essex CM13 3XL

### Phone/fax

**Phone : + 44 845 265 8008**

**Fax : + 44 845 265 8009**

### Emergency Phone

**Phone :**

## 02. Composition/information on ingredients

### Chemical Characterisation (Preparation):

Reactive resin based on methyl methacrylate

### Hazardous components:

EINECS	CAS-No.	Description	Content %	Symbols	R-Phrases
201-297-1	80-62-6	Methyl methacrylate	25 - 50	F, Xi	11-37/38-43
255-437-1	41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	0.25 - 1.0	Xi, N	43-50/53
280-060-4	82919-37-7	Methyl(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	0.25 - 1.0	Xi, N	43-50/53

R11- Highly flammable

R37/38- Irritating to respiratory system and skin

R43- May cause sensitisation by skin contact

R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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### 03. Hazards identification

**Classification according to the guideline 1999/45/EU:** Hazardous Preparation.

**Description of the hazards:**

Highly flammable. Irritating to respiratory system and skin. May cause sensitisation by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Special hazard notes for humans and environment:**

Vapours with air can cause mixes which can explode. Also see point 7, 8 and 10.

### 04. First Aid

**General note:**

Take the person affected out of the hazardous area. Immediately remove contaminated or soaked clothing.

**After inhalation:**

Bring the person affected to fresh air. Keep airways free. If unconscious, stable side position, if respiratory arrest artificial respiration.

If troubles continue, call on a doctor.

**After skin contact:**

Immediately wipe off the affected area with a paper towel, then clean with plenty of water and soap. With enduring irritation or infections, call on a doctor.

**After eye contact:**

Immediately rinse with running water at least 15 minutes with open eyelids. Control by eye specialist.

**After swallowing:**

Rinse mouth, drink sufficient water in small sips, do not initiate vomiting, immediately call on a doctor.

**Notes for the doctor:**

Sensitisation through skin contact possible, decontamination, symptomatic treatment, no specific antidote known.

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### 05. Fire fighting measures

**Suitable extinguishing media:**

fog, dry powder, carbon dioxide, foam

**Unsuitable extinguishing agent for safety reasons:**

Full jet water

**Special hazards through the material or self preparation, its combustion products or resulting gases:**

Combustion and decomposition products lead to irritation or infection of the airways. The formation of vapour / air mixtures which can lead to flame or explosion is possible. Residues from fire and contaminated extinguishing agents must be disposed of according to the local official regulations.

**Special protective measures when fighting fires:**

Wear respiratory equipment which is independent of the surrounding air and heat resistant clothing which is resistant to chemicals.

**Additional notes:**

In case of fire in the container, bring it away from the hazardous area and cool.

### 06. Accidental release measures

**Personal precautionary measures:**

Avoid contact to the skin and eyes. Make sure there is sufficient ventilation. Remove all ignition sources. Use personal protective clothing.

**Environmental protection measures:**

Do not allow materials to reach sewage system, bodies of water or soil.

**Procedure for cleaning:**

Remove all ignition sources. Take up larger amounts mechanically (observe explosion protection when pumping out), absorb smaller amounts with universal binder (diatomaceous earth, expanded mica, sawdust) and dispose of according to the local official regulations.

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### 07. Handling and storage

#### **Handling, notes for safe handling:**

Only use in well ventilated areas. In close rooms install ventilators or suction (explosion protection!) and put on breathing protection (see 8). Vapours are 4x heavier than air, therefore suction from below. Dangerous concentration of vapours in low-lying, open rooms is possible. Carefully open containers, they can be under pressure. Treat empty containers with the same caution as filled ones.

#### **Notes on fire and explosion protection:**

Together with air, vapours can form a mixture which can explode. Keep away from all ignition and heat sources, do not smoke. Take measures against electrostatic charges (among other things antistatic clothing and shoes, tools which will not cause sparks). Only use devices which are protected from explosion. Keep a fire extinguisher fire class A ready.

#### **Storage, requirements for storage rooms and containers:**

Store product in closed original containers. Store in dry, well-ventilated rooms with a maximum temperature of 25° C. Provide a solvent resistant and leak proof floor. Never fill the containers more than 80 % because the aerial oxygen is necessary for stabilising. Protect from direct sunlight.

#### **Notes for storage with other materials:**

Do not store together with oxidizing materials. Also see point 10. Store separate from foodstuffs.

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### 08. Exposure controls / personal protection

Components with limit values related to the working place and to be supervised:

CAS-No.	Material	Type	Value	Value
80-62-6	Methyl methacrylate	OES long-term 2003	50 ppm	208 mg/m <sup>3</sup>
80-62-6	Methyl methacrylate	OES short-term 203	100 ppm	416 mg/m <sup>3</sup>

#### **Personal protective equipment, breathing protection:**

Put on breathing protection device filter type A in case ventilation or suction is not sufficient. For longer, more intensive exposure in closed rooms, use breathing equipment which is independent of the surrounding air.

#### **Hand protection:**

Protective gloves must be regularly changed corresponding to the time they are protected from uptake. Producers list the following rupture protection times: butyl rubber 60-120 minutes, for laminated gloves > 480 minutes. Skin protection products are to be used according to a skin protection plan.

Sources and further details can be asked for at any time at WIDOPAN Produkte GmbH.

#### **Eye protection:**

Put on leak proof protective glasses. Keep a bottle for rinsing the eyes available.

#### **Body protection:**

Before work, apply a water soluble lipophobe body protection salve according to the skin protection plan. Wear antistatic, flame retardant protective clothing. Store work clothing separately, immediately change and clean dirty clothing.

#### **Protection and hygiene measures:**

Adhere to the normal caution measures for handling chemicals (do not eat, drink, smoke while working). Principally observe UVV. Also see point 7.

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## 09. Physical and chemical properties

### Appearance:

Form: Fluid, middle viscosity (pigments and fillers can deposit)  
Colour: Coloured pigmented  
Smell: Strong methyl methacrylate smell

### Data relating to safety

Information for the component methyl methacrylate:

pH-value	Not applicable		
Melt temperature:	-48	°C	BS 523, 1964
Boiling point:	100.3	°C	DIN 51751
Flashpoint:	11.5	°C	DIN 51755
Ignition temperature:	430	°C	DIN 51794
Lower explosibility limit:	2.1	Vol. %	
Higher explosibility limit:	12.5	Vol. %	
Vapour pressure at 20°C:	38.7	mbar	
Solubility in water at 20°C:	15.9	g/l	
Distribution coefficient (n-octanol/water)	1.38	log POW	

Information for the preparation

Density at 25°C:	1.36	g/cm <sup>3</sup>	DIN 53217
Viscosity at 25°C:	300 - 460	mPa*s	DIN 53018

## 10. Stability and reactivity

### Conditions to be avoided:

Temperatures of > 25°C, direct sun influence, low ventilation, sources of ignition in the area.

### Materials to be avoided:

Radical donators such as peroxides, amines, azoic compositions, heavy metal compositions, strong oxidants and reducing agents.

### Further information:

The formation of vapour/air mixture which can explode is possible. There is a tendency to strong exothermal polymerisation when warming and with contact to the materials which are to be avoided. Danger of bursting in closed containers through pressure build up. The product is delivered with sufficient stability, but if there is a suspicion of polymerisation due to storage or handling which is not appropriate, this process can be disrupted by mixing with stabilizers and cooling the container

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### 11. Toxicological information

Data from tests with this preparation are not available.

Literature gives the following information for the component methyl methacrylate:

Lethal dose LD<sub>50</sub> (oral, rat) 7872 mg/kg

Lethal concentration LC<sub>50</sub> (inhalation rat) 3750 ppm.

The product has an irritating effect on the skin, eyes, mucosa and airways. The odour threshold value of methyl methacrylate is 0.05 ppm. The comparatively relatively high OES value of 50 ppm was determined in view of the odour annoyance. Sensitisation is possible with contact to the skin. Pregnancy group Y (no risk of developmental disorders if the MAK value is adhered to). Toxication or permanent damage through processing the product have not been previously known.

### 12. Ecological information

**Information on elimination (persistence and biodegradability):**

biologically readily biodegradable, OECD 301 C, 14 d, 94 %

**Reaction in the environmental compartment:**

Air contamination leads to odour annoyance. Odour threshold value 0.05 ppm.

**Ecotoxic effects, rating numbers for acute toxicity:**

against mammals: 1

against fish: 3.5

against bacteria: 4.0

**Further information:**

Ecotoxicological tests for the product are not available. The information given in point 12 refers to the component methyl methacrylate.

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### 13. Disposal considerations

**Disposal:**

The product must be delivered to a hazardous waste cleanup facility taking official regulations into consideration. Remains from construction sites or contaminated material can be mixed with other methacrylate resins and cured with hardener powder. Completely hardened material can be disposed of as domestic waste after permission has been granted by the responsible authorities.

**Waste disposal key product / product remains (EWC):**

08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances

**Disposal of unrefined packaging and recommended cleaning agent:**

Original packaging which has been emptied of remains can be returned to the manufacturer. Ethylacetate, acetone and methyl methacrylate are suitable as cleaning agents.

### 14. Transport information

**Land transport (GGVS/ADR, GGVE/RID)**

Class: 3  
Hazard number: 33  
Hazardous materials signs: 3  
UN-Number: 1866  
Packaging group: II  
Technical shipment description: UN 1866 Resin solution

**Ship transport (IMDG/GGVSea):**

Class: 3  
Hazardous materials signs: 3  
EMS: F-E, S-E  
Packaging group: II  
UN-Number: 1866  
Flashpoint: + 11.5°C (methyl methacrylate)  
Marine pollutants: mp  
Technical shipment description: Resin solution flammable

**Air transport (ICAO/IATA):**

Class: 3  
Hazardous materials signs: 3  
Packaging group: II [ III ]  
UN-Number: 1866  
Packaging regulations  
passenger airplane: 305 [ 309 ]  
Packaging regulation CAO: 307 [ 310 ]  
Technical shipment description: Resin solution



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### 15. Regulatory information

**Labelling, description of the hazard(s) according to EU guidelines:**

Irritating, highly flammable

**Components which determine the hazard:**

Methyl methacrylate, Bis-(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate

**R-Phrases**

- 11- Highly flammable
- 37/38- Irritating to respiratory system and skin
- 43- May cause sensitisation by skin contact
- 52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-Phrases**

- 09- Keep container in a well-ventilated place
- 16- Keep away from sources of ignition – No smoking
- 24- Avoid contact with skin
- 29- Do not empty into drains
- 33- Take precautionary measures against static discharges
- 37- Wear suitable gloves
- 62- Avoid release to the environment. Refer to special instructions/safety data sheets.

### 16. Other information

Changes to the last version in chapter 2, 3, 7, 8, 9, 11 and 15.

All information corresponds with our current status known to us, it does not ensure the product characteristics and does not found a contractual legal relationship.