

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

1.1 Product identifier

Trade name: Cactus PMMA-Based Top Coat / Sealer Coat

UFI: 4VG2-70TD-F00C-TRRF

1.2 Relevant identified uses of the substance or mixture and uses advised against
Unsuitable for home DIY applications.

Application of the substance / the preparation: Reaction resin

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Cactus Industrial Ltd
Unit 11, Block 6 Trading Estate, Third Road, Blantyre Industrial Estate, Blantyre United
Kingdom, G72 0UP
Tel: +44(0) 1698 591 635
e-mail: info@cactusindustrial.com

1.4 Emergency telephone number:

Emergency CONTACT (24-Hour-Number): +44(0) 1698 591 635

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:

methyl methacrylate
2-ethylhexyl acrylate
tetramethylene dimethacrylate
N-Hydroxyethyl-N-methyl-p-toluidine

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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 dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

- EUH210 Safety data sheet available on request.
- EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards

Results of PBT and vPvB assessment

- PBT:** Not applicable.
- vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

- Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 80-62-6 EINECS: 201-297-1 Reg.nr.: 01-2119452498-28	methyl methacrylate ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	25-50%
CAS: 103-11-7 EINECS: 203-080-7 Reg.nr.: 01-2119453158-37	2-ethylhexyl acrylate ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 2082-81-7 EINECS: 218-218-1 Reg.nr.: 01-2119967415-30	tetramethylene dimethacrylate ⚠ Skin Sens. 1B, H317	0.5-2.5%
CAS: 8002-74-2 EINECS: 232-315-6 Reg.nr.: 01-2119488076-30	Paraffin waxes and Hydrocarbon waxes substance with a Community workplace exposure limit	≤0.5%
CAS: 131-57-7 EINECS: 205-031-5	oxybenzone ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411	≤0.5%
CAS: 2842-44-6 EINECS: 220-638-5 Reg.nr.: 01-2120827830-56	N-Hydroxyethyl-N-methyl-p-toluidine ⚠ Aquatic Chronic 2, H411; ⚠ Eye Irrit. 2, H319; Skin Sens. 1, H317	≤0.5%

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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Foam
Sand
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Exothermic polymerisation.
In case of fire, the following can be released:
Hydrocarbons
Carbon monoxide and carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

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6.4 Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- Information about fire - and explosion protection:
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Fumes can combine with air to form an explosive mixture.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
 - Requirements to be met by storerooms and receptacles:
 - Store only in the original receptacle.
 - Store in cool, dry conditions in well sealed receptacles.
 - Do not allow to enter sewers/ surface or ground water.
 - Information about storage in one common storage facility: Not required.
 - Further information about storage conditions:
 - Store receptacle in a well ventilated area.
 - Protect from heat and direct sunlight.
 - Maximum storage temperature: 25°C
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

80-62-6 methyl methacrylate

WEL	Short-term value: 416 mg/m ³ , 100 ppm
	Long-term value: 208 mg/m ³ , 50 ppm

8002-74-2 Paraffin waxes and Hydrocarbon waxes

WEL	Short-term value: 6 mg/m ³
	Long-term value: 2 mg/m ³

DNELs

80-62-6 methyl methacrylate

Dermal	DNEL Dermal	13.67 mg/kg/d
Inhalative	DNEL Inhalation	210 mg/m ³

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.

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- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Use the indicated respiratory protection if workplace exposure limits are exceeded.
- **Recommended filter device for short term use:** Filter A
- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (EN 374)

- **Material of gloves** Butyl rubber, BR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
For the mixture mentioned below the penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 3).
- **Eye/face protection**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

- **Physical state** Fluid
- **Colour:** Different according to colouring
- **Odour:** Unpleasant
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** 100 °C
- **Flammability** Highly flammable.
- **Lower and upper explosion limit**
- **Lower:** 0.8 Vol %
- **Upper:** 12.5 Vol %

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· Flash point:	10 °C
· Ignition temperature:	245.0 °C
· Decomposition temperature:	Not determined.
· pH	Mixture is non-soluble (in water).
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	500 mPas
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	38.7 hPa
· Density and/or relative density	
· Density at 20 °C:	1.22 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Highly flammable liquid and vapour.
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void

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· Desensitised explosives Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Keep away from heat and direct sunlight.
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Exothermic polymerisation.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Reacts with peroxides and other radical forming substances.
- **10.6 Hazardous decomposition products:**
Hydrocarbons
Carbon monoxide and carbon dioxide
- **Additional information:** Do not allow to enter sewers/ surface or ground water.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**

· **LD/LC50 values relevant for classification:**

80-62-6 methyl methacrylate

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (kan)
Inhalative	LC50 (4h)	29.8 mg/l (rat)

- **Skin corrosion/irritation** Causes skin irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **STOT-single exposure** May cause respiratory irritation.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

131-57-7	oxybenzone	List II
128-37-0	Butylated hydroxytoluene	List II

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

80-62-6 methyl methacrylate

EC50 (48h)	69 mg/l (Daphnia magna)
EC50 (96h)	170 mg/l (Selenastrum capricornutum)

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EC3 (16h)	100 mg/l (Pseudomonas putida)
NOEC	37 mg/l (Daphnia magna)
NOEC (72h)	>110 mg/l (Selenastrum capricornutum)
LC50 (96h)	>79 mg/l (fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Must be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:**
Packaging may be reused or recycled after cleaning.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Acetone, ethylacetate

SECTION 14: Transport information

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN1866
· 14.2 UN proper shipping name	
· ADR	1866 RESIN SOLUTION
· IMDG, IATA	RESIN SOLUTION

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· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class** 3 Flammable liquids.
· **Label** 3

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Warning: Flammable liquids.

· **Hazard identification number (Kemler code):** 33

· **EMS Number:** F-E, S-E

· **Stowage Category** B

· **14.7 Maritime transport in bulk according to**

IMO instruments Not applicable.

· **Transport/Additional information:**

· **ADR**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
· **Transport category** 2
· **Tunnel restriction code** D/E

· **IMDG**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN 1866 RESIN SOLUTION, 3, II

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P5c FLAMMABLE LIQUIDS

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- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
II	> 25 < 50

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- 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.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Environmental Protection Department

· **Abbreviations and acronyms:**

- Flam. Liq. 2: Flammable liquids – Category 2
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Skin Sens. 1B: Skin sensitisation – Category 1B
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· *** Data compared to the previous version altered.**