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

- **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
- **Details of the supplier of the safety data sheet**
- **Distributor:**

Cactus Industrial Limited
Unit 11, Block 6 Trading Estate, Third Road,
Blantyre Industrial Estate
Blantyre
Scotland
G72 0UP
www.cactusindustrial.com
info@cactusindustrial.com
+44(0) 1698 591 635

- **Emergency telephone number:** +44(0) 1698 591 635

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classfication 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 CLP regulation.

- **Hazard pictograms**

GHS02 GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**

methyl methacrylate
2-ethylhexyl acrylate
tetramethylene dimethacrylate

- **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.
P302+P352 IF ON SKIN: Wash with plenty of water.
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.

(Contd. on page 2)

• 2.3 Other hazards
• Results of PBT and vPvB assessment
• PBT: Not applicable.
• vPvB: Not applicable.

SECTION 3: Composition / information on ingredients

• 3.2 Chemical characterisation: 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: 38668-48-3 EINECS: 254-075-1 Reg.nr.: 01-2119980937-17	1,1'-(p-tolylimino)dipropan-2-ol Acute Tox. 3, H301; Aquatic Chronic 3, H412	0.5-2.5%

• 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
• After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
• After skin contact: Immediately wash with water and soap and rinse thoroughly.
• After eye contact: If symptoms persist consult doctor.
• After swallowing: If symptoms persist consult doctor.
• 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, sand, extinguishing powder. Do not use water.
• 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

(Contd. on page 3)

- 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
  Keep away from ignition sources.
  Use respiratory protective device against the effects of fumes/dust/aerosol.
  Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  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).
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents
- 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.
  Prevent formation of aerosols.
- Information about fire - and explosion protection:
  Fumes can combine with air to form an explosive mixture.
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
- 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.
  Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- Further information about storage conditions:
  Store receptacle in a well ventilated area.
  Keep container tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
- **Maximum storage temperature:** 25°C
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls / personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

(Contd. on page 4)

• 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/m³, 100 ppm Long-term value: 208 mg/m³, 50 ppm

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

• 8.2 Exposure controls
• **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.
Do not inhale gases / fumes / aerosols.
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
• **Protection of hands:**

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.
• **Eye 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
• Appearance:
Form: Fluid
Colour: According to product specification
• **Odour:** Characteristic
• **Odour threshold:** Not determined.

• **pH-value:** Not determined.

• Change in condition
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 100°C
• **Flash point:** 10°C

(Contd. on page 5)

- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** 245°C
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**
  - **Lower:** 2.1 Vol %
  - **Upper:** 12.5 Vol %
- **Vapour pressure at 20°C:** 38.7 hPa
- **Density at 20°C:** 1.2 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**
  - **Dynamic at 20°C:** 550 mPas
  - **Kinematic:** Not determined.
- **Solvent content:**
  - **Organic solvents:** 0.0 %
- **9.2 Other information** No further relevant information available

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.
- **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 product to reach sewage system or any water course.
  Prevent seepage into sewage system, workpits and cellars.
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/ surface or ground water.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**
  Causes skin irritation.

(Contd. on page 6)

- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
  May cause an allergic skin reaction.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
  May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
  Must be specially treated adhering to official regulations.
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **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.
- **Recommended cleansing agents:** Acetone, ethylacetate

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1866
- **14.2 UN proper shipping name**
- **ADR** 1866 RESIN SOLUTION
- **IMDG, IATA** RESIN SOLUTION

(Contd. on page 7)

- 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.
• Danger code (Kemler):	33
• EMS Number:	F-E,S-E
• Stowage Category	B
• 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	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
• 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
• REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

• National regulations:

• Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

(Contd. on page 8)

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.
  H301 Toxic if swallowed.
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H335 May cause respiratory irritation.
  H412 Harmful to aquatic life with long lasting effects.

- **Department issuing SDS:** Environmental Department
- **Abbreviations and acronyms:**
  Flam. Liq. 2: Flammable liquids – Category 2
  Acute Tox. 3: Acute toxicity – Category 3
  Skin Irrit. 2: Skin corrosion/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 Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
- ***Data compared to the previous version altered.**