



**Kinetics Controls & Innovation Ltd**

## SAFETY DATA SHEET

### Mac-Seal 01 Compound

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

##### 1.1. Product identifier

Product name Mac-Seal 01 Compound  
Synonyms; trade names Mac-Seal (Compound Material)

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Sealant.  
Uses advised against No specific uses advised against are identified.

##### 1.3. Details of the supplier of the safety data sheet

Supplier KCI Ltd (Kinetics Control and Innovation Limited)  
Unit 4 & 6-7  
1 Kirkhill Place  
Dyce  
Aberdeen  
AB21 0GU  
UK  
+44 (0)1224 255480  
www.kciltld.co.uk  
info@kciltld.co.uk

Contact person Roy MacKenzie

##### 1.4. Emergency telephone number

Emergency telephone +44 (0) 1224 255480 (office hours only)  
National emergency telephone NHS: 111 (Members of the public)  
number UK National Poisons Information Service: 0844 892 0111 (Health Professionals Only)

#### SECTION 2: Hazards identification

Physical hazards Not Classified  
Health hazards Not Classified

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Environmental hazards	Aquatic Chronic 3 - H412	<u>2.1. Classification</u>
2.2. Label elements		<u>of the substance</u>
Hazard statements	H412 Harmful to aquatic life with long lasting effects.	<u>or mixture</u>
Precautionary statements	P273 Avoid release to the environment.	
	P501 Dispose of contents/container in accordance with national regulations.	<u>Classification</u>

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Zircon	30-60%
CAS number: 14940-68-2                      EC number: 239-019-6	
Classification Not Classified	
octamethylcyclotetrasiloxane	1-5%
CAS number: 556-67-2                      EC number: 209-136-7	
Classification Flam. Liq. 3 - H226 Repr. 2 - H361f Aquatic Chronic 4 - H413	
zinc oxide	<1%
CAS number: 1314-13-2                      EC number: 215-222-5	
M factor (Acute) = 1                      M factor (Chronic) = 1	
Classification Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General information	Treat symptomatically. Get medical advice/attention if you feel unwell.
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Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Rinse mouth thoroughly with water. Get medical attention if symptoms are severe or persist.
Skin contact	IF ON SKIN (or hair): Rinse immediately with plenty of water.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Consult a physician for specific advice.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

### 4.2. Most important symptoms and effects, both acute and delayed

General information	The product is considered to be a low hazard under normal conditions of use. Treat symptomatically.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	No specific symptoms known.
Eye contact	No specific symptoms known.

### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	Foam. Carbon dioxide (CO <sub>2</sub> ). Powder. Dry chemicals. Water spray, fog or mist. Inert gas.
Unsuitable extinguishing media	None known.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards	None known.
Hazardous combustion products	Oxides of carbon. Formaldehyde. Metal products. Quartz. Silica.

### 5.3. Advice for firefighters

Protective actions during firefighting	In case of fire: Evacuate area. Fight fire with normal precautions from a reasonable distance. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water. Cool containers exposed to flames with water until well after the fire is out.
Special protective equipment materials. for firefighters	Use protective equipment appropriate for surrounding materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

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**Personal precautions**      Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Take care as floors and other surfaces may become slippery.

### 6.2. Environmental precautions

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**Environmental precautions**      The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. Do not discharge into drains or watercourses or onto the ground. Use appropriate containment to avoid environmental contamination.

### 6.3. Methods and material for containment and cleaning up

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**Methods for cleaning up**      Stop leak if safe to do so. If leakage cannot be stopped, evacuate area. Take care as floors and other surfaces may become slippery. Small Spillages: Absorb spillage with noncombustible, absorbent material. Large Spillages: Should be contained by bunding or dyking and prevent from reaching drains, ditches, or rivers. All Spillages: Collect and place in suitable waste disposal containers and seal securely. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

### 6.4. Reference to other sections

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**Reference to other sections**      For personal protection, see Section 8. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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**Usage precautions**      Avoid contact with eyes. Avoid inhalation of vapours. Mechanical ventilation or local exhaust ventilation may be required.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**      Keep away from oxidising materials, heat and flames.

### 7.3. Specific end use(s)

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**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

Zircon

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Long-term exposure limit (8-hour TWA): WEL 5 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 10 mg/m<sup>3</sup>

zinc oxide

Long-term exposure limit (8-hour TWA): WEL 5 mg/m<sup>3</sup> fume and respirable dust

Short-term exposure limit (15-minute): WEL 10 mg/m<sup>3</sup> fume and respirable dust

WEL = Workplace Exposure Limit

Ingredient comments	Zinc oxide (EC 215-222-5, CAS 1314-13-2):
DNEL	Workers - Inhalation; Long term systemic effects: 5 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 83 mg/kg bw/day
	General population - Inhalation; Long term systemic effects: 2.5 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 83 mg/kg bw/day
PNEC	General population - Oral; Long term systemic effects: 0.83 mg/kg bw/day
	PNEC - Fresh water; Long term 0.0206 mg/l
	PNEC - Marine water; Long term 0.0061 mg/l
	PNEC - STP; Long term 0.1000 mg/l
	PNEC - Sediment (Freshwater); Long term 117.8 mg/kg sediment dw
	PNEC - Sediment (Marinewater); Long term 56.5 mg/kg sediment dw
	PNEC - Soil; Long term 35.6 mg/kg soil dw



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Chemical splash goggles or face shield.

Hand protection

Wear protective gloves.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Good personal hygiene procedures should be implemented.

Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Off-white.
Odour	No characteristic odour.
Initial boiling point and range	>100°C @ 101.325 kPa

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Flash point	> 100°C CC (Closed cup).
Viscosity	16000 mPa s @ 25°C
Explosive properties	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.
Comments	This information is not intended for use in preparing product specification.

### 9.2. Other information

#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

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Reactivity                      There are no known reactivity hazards associated with this product.

##### 10.2. Chemical stability

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Stability                        No particular stability concerns.

##### 10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions                      Will not polymerise.

##### 10.4. Conditions to avoid

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Conditions to avoid                      None known.

##### 10.5. Incompatible materials

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Materials to avoid                      Strong oxidising agents.

##### 10.6. Hazardous decomposition products

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Hazardous decomposition products                      Heating may generate the following products: Formaldehyde vapour. Quartz. Fibrogenic dust.

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

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Toxicological effects                      No information available.

#### SECTION 12: Ecological Information

Ecotoxicity                        Harmful to aquatic life with long lasting effects.

##### 12.1. Toxicity

## Mac-Seal 01 Compound

Acute toxicity - fish	Zinc oxide (EC 215-222-5, CAS 1314-13-2): LC <sub>50</sub> , 96 hour: 1.1 mg/l, (Data Source: GESTIS Substance Database)
Acute toxicity - aquatic invertebrates	Zinc oxide (EC 215-222-5, CAS 1314-13-2): LC <sub>50</sub> , 48 hour: 0.098 mg/l, (Data source: GESTIS Substance Database)
12.2. Persistence and degradability	
Persistence and degradability	The product contains inorganic substances which are not biodegradable. The product contains persistent (not readily degradable) substances.
Stability (hydrolysis)	Not known.

### 12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

### 12.4. Mobility in soil

Mobility No information available.

### 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 None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods Dispose of waste product or used containers in accordance with local regulations

## SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

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### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to        Not  
applicable. Annex II of MARPOL 73/78 and  
the IBC Code

## 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.

#### Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

## SECTION 16: Other information

General information	The data contained herein does not constitute the user's own assessment or workplace risk as required by other health and safety legislation (e.g. COSHH 1988). The data does not signify any warranty with regard to the product's properties.
Revision comments	This revision to the SDS removed classification information according to Directive 67/548/EEC (Dangerous Substances Directive) and Directive 1999/45/EC (Dangerous Preparations Directive). Removal of this information is a requirement of Regulation (EC) No 1272/2008



## Mac-Seal 01 Compound

(Classification Labelling and Packaging Regulation).

Revision date	03/07/2015
Supersedes date	02/03/2015
SDS number	4532
Hazard statements in full	H226 Flammable liquid and vapour. H361f Suspected of damaging fertility. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. H413 May cause long lasting harmful effects to aquatic life.