

## HENKEL MAKROFLEX AS

# MATERIAL SAFETY DATA SHEET

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### 1. IDENTIFICATION OF THE CHEMICAL AND OF THE MANUFACTURER, IMPORTER OR OTHER UNDERTAKING

1.1 **TRADE NAME** MAKROSIL GA103 Glass Silicone  
1.2 **MANUFACTURER, IMPORTER OR OTHER UNDERTAKING ADDRESS** HENKEL MAKROFLEX AS  
Pärnu mnt. 139 E  
11317 Tallinn, Estonia  
**PHONE** + 372 6 999070  
**FAX** + 372 6 999071

### 2. COMPOSITION AND INFORMATION ON INGREDIENTS

2.1 **PRODUCT DESCRIPTION** Polydimethylsiloxane + fillers + auxiliaries and alkoxy silanecross linker  
2.2 **HAZARDOUS INGREDIENTS**

CAS number or other code	Name of the ingredient	Conc.	Warning symbol, R phrases and other data on the ingredient
17689-77-9	Triacetoxymethylsilane	2,2 %	C, R34; Xn, R22
4253-34-3	Methyltriacetoxysilane	2,0 %	C, R34; Xn, R22

### 3. HAZARDS IDENTIFICATION

3.1 **EMERGENCY OVERVIEW**  
3.2 **EFFECTS OF OVEREXPOSURE**  
3.2.1 **EYE CONTACT**  
3.2.2 **SKIN CONTACT**  
3.2.3 **INHALATION**  
3.2.4 **INGESTION**  
3.3 **MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY CONTACT**  
3.4 **PRIMARY ROUTE(S) OF ENTRY**  
3.5 **OTHER** No hazardous according to Council Directive 1999/45/EC and its subsequent amendments

### 4. FIRST AID MEASURES

4.1 **SPECIAL INSTRUCTIONS**  
4.2 **INHALATION** Remove to fresh air.  
4.3 **SKIN CONTACT** Wipe off and wash with soap and water.  
4.4 **EYE CONTACT** Flush with water.  
4.5 **INGESTION** No first aid should be needed.  
4.6 **COMMENTS**

### 5. FIRE FIGHTING MEASURES

5.1	<b>SUITABLE EXTINGUISHING MEDIA</b>	Carbon dioxide, foam, dry powder or fine water spray.
5.2	<b>EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS</b>	None known
5.3	<b>SPECIAL EXPOSURE HAZARDS IN FIRE</b>	None known.
5.4	<b>SPECIAL PROTECTIVE EQUIPMENT FOR A FIRE</b>	A self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after the fire is out. Determine the need to evacuate or isolate the area according to your local emergency plan.
5.5	<b>OTHER INSTRUCTIONS</b>	Hazardous combustion products: Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

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## 6. ACCIDENTAL RELEASE MEASURES

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6.1	<b>PERSONAL PRECAUTIONS</b>	Wear personal protection equipment.
6.2	<b>ENVIRONMENTAL PRECAUTIONS</b>	Prevent material from entering surface waters, drains or sewers and open soil.
6.3	<b>METHODS FOR CLEANING UP</b>	Do not flush away with water. Take up mechanically and dispose of according to local/state/federal regulations. Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner.
6.4	<b>OTHER</b>	

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## 7. HANDLING AND STORAGE

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7.1	<b>HANDLING</b>	General ventilation is recommended. Local ventilation is recommended. Avoid skin and eye contact. Do not breathe vapour.
7.2	<b>STORAGE</b>	Do not store with oxidizing agents. Keep container closed and store away from water or moisture.

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## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

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8.1	<b>TECHINICAL MEASURES FOR EXPOSURE CONTROLS</b>	
8.2	<b>LIMIT VALUES FOR WORKPLACE AIR</b>	Triacetoxymethylsilane: (17689-77-9) 10 ppm TWA, 15ppm STEL as acetic acid (ACGIH). Methyltriacetoxysilane: (4253-34-3) 10 ppm TWA, 15ppm STEL as acetic acid (ACGIH).
8.2.1	<b>HTP VALUES</b>	
8.2.2	<b>OTHER INFORMATION OF LIMIT VALUES</b>	
8.3	<b>PERSONAL PROTECTIVE EQUIPMENT</b>	
8.3.1	<b>SPECIAL INSTRUCTIONS FOR</b>	Exercise good industrial hygiene

	<b>PROTECTION AND HYGIENE</b>	practice. Wash after handling, especially before eating, drinking or smoking.
8.3.2	<b>RESPIRATORY PROTECTION</b>	Suitable respiratory protection should be worn if the product is used in large quantities, confined spaces or in other circumstances where the OEL may be approached or exceeded.
8.3.3	<b>HAND PROTECTION</b>	Chemical protective gloves should be worn: Butyl rubber. Nitrile rubber. Neoprene rubber. Silver shield(TM). 4H(TM). Regarding glove's breakthrough time contact your chemical protective glove supplier.
8.3.4	<b>EYE PROTECTION</b>	Safety glasses should be worn.
8.3.5	<b>SKIN PROTECTION</b>	Wear impervious overalls in circumstances where significant skin contact can occur.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1	<b>PHYSICAL STATE, COLOUR AND ODOR</b>	White, grey and black paste with pleasant odour
9.2	<b>pH</b>	
9.3	<b>INFORMATION ON CHANGES IN THE PHYSICAL STATE</b>	
9.3.1	<b>BOILING POINT/RANGE</b>	
9.3.2	<b>MELTING POINT/RANGE</b>	
9.3.3	<b>DECOMPOSITION TEMPERATURE</b>	
9.4	<b>FLASH POINT</b>	
9.5	<b>FLAMMABILITY (SOLID/GAS)</b>	
9.6	<b>AUTOFLAMMABILITY</b>	
9.7	<b>EXPLOSION HAZARD</b>	
9.8	<b>EXPLOSIVE LIMITS (LOWER/UPPER)</b>	
9.9	<b>OXIDIZING PROPERTIES</b>	
9.10	<b>VAPOUR PRESSURE</b>	
9.11	<b>RELATIVE DENSITY</b>	1,02 g/cm <sup>3</sup> at 25 °C
9.12	<b>SOLUBILITY</b>	
9.12.1	<b>IN WATER</b>	virtually insoluble
9.12.2	<b>IN ORGANIC SOLVENTS</b>	
9.13	<b>PARTITION COEFFICIENT (FOR INGREDIENTS) : N-OCTANOL/WATER</b>	
9.14	<b>VISCOSITY</b>	Paste
9.15	<b>OTHER INFORMATION</b>	

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## 10. STABILITY AND REACTIVITY

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10.1	<b>CONDITIONS TO AVOID</b>	Stable under normal conditions.
10.2	<b>MATERIALS TO AVOID</b>	Can react with strong oxidizing agents. Cures in presence of water or moisture, releasing a small amount of acetic acid.
10.3	<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	See Sec.11

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## 11. TOXICOLOGICAL INFORMATION

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11.1	<b>ACUTE TOXICITY</b>	
11.2	<b>IRRITANCY AND CORROSIVENESS</b>	Vapours released during curing may cause eye irritation. On skin contact: Can irritate on prolonged or repeated contact. If inhaled: The vapour is irritating to the mouth, nose and throat. On ingestion: Small amounts transferred to the mouth by fingers during use should not injure. Swallowing large amounts may cause digestive discomfort.
11.3	<b>SENSITIZATION</b>	
11.4	<b>SUBACUTE, SUBCHRONIC AND PROLONGED TOXICITY</b>	
11.5	<b>EMPIRICAL DATA ON EFFECTS ON HUMANS</b>	
11.6	<b>OTHER</b>	Product may emit formaldehyde vapours at temperatures above 150°C in the presence of air. Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing concentration less than one part per million (1 ppm).

## 12. ECOLOGICAL INFORMATION

12.1	<b>PERSISTENCE IN ENVIRONMENT</b>	Solid material, insoluble in water. No adverse effect are predicted.
12.1.1	<b>BIODEGRADATION</b>	Silicone content: Biologically not degradable. Organic solvent: Readily biologically degradable.
12.1.2	<b>CHEMICAL DEGRADATION</b>	
12.2	<b>BIOACCUMULATION</b>	No bioaccumulation potential.
12.3	<b>MOBILITY</b>	
12.4	<b>TOXIC EFFECTS ON ORGANISMS</b>	
12.4.1	<b>AQUATIC TOXICITY</b>	
12.4.2	<b>OTHER TOXICITY</b>	
12.5	<b>OTHER INFORMATION</b>	Silicone content: in cross-linked state not soluble in water. Easily separable from water by filtration.

## 13. DISPOSAL CONSIDERATIONS

### Material

Recommendation:

Dispose of according to regulations by incineration in a special waste incinerator. Small quantities may be disposed of by incineration in an approved facility. Observe local/state/federal regulations.

### Uncleaned packaging

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

## 14. TRANSPORT INFORMATION

14.1	<b>UN NUMBER</b>	
14.2	<b>PACKAGING CATEGORY</b>	
14.3	<b>LAND TRANSPORT</b>	
14.3.1	<b>TRANSPORT CLASS</b>	Not restricted
14.3.2	<b>RISK CODE</b>	

**14.3.3 NAME ACCORDING TO BILL OF FREIGHT****14.4 SEA TRANSPORT****14.4.1 IMDG CLASS** Not restricted**14.4.2 CORRECT TECHNICAL NAME****14.4.3 OTHER INFORMATION****14.5 AIR TRANSPORT****14.5.1 ICAO/IATA** Not restricted**14.5.2 CORRECT TECHNICAL NAME****14.5.3 OTHER INFORMATION**

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**15. REGULATORY INFORMATION**

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**15.1 INFORMATION ON THE WARNING LABEL****15.1.1 LETTER CODE OF THE WARNING SYMBOL AND INDICATIONS OF DANGER FOR THE PREPARATION** S24: Avoid contact with skin; S51: Use only in well-ventilated areas.**15.1.2 NAMES OF INGREDIENTS GIVEN ON THE WARNING LABEL****15.1.3 R AND S PHRASES****15.1.5 SPECIAL REGULATIONS ON CERTAIN PREPARATIONS** No ozone depleting chemicals are present or used in manufacture.**15.2 NATIONAL REGULATIONS**

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**16. OTHER INFORMATION**

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**16.1 PURPOSE OF USE****16.1.1 EXPRESSED IN WRITING**

Sealing of construction elements

**16.1.2 CODE FOR PURPOSE OF USE****16.2 DIRECTIONS FOR USE**

Suitable for filling cracks and joints both indoors and outdoors.

**16.3 OTHER INFORMATION****16.4 ADDITIONAL INFORMATION AVAILABLE FROM**Tanel Toomela, tel: +372 44 71631  
e-mail: tanel@makroflex.ee**16.5 SOURCES OF INFORMATION USED IN THE COMPILATION OF THE SAFETY DATA SHEET**

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended.

This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product.

The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

This information is not exhaustive.

This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist. This is solely his responsibility.