

HS WALSH & SONS

— SERVING JEWELLERS & HOROLOGISTS SINCE 1947 —

MSDS Material Safety Data Sheet & Product Information

Sixth Issue (updated)

This information has prepared based solely on Material Safety Data Sheets of the constituents of Tempguard Gel, as listed in the compositional and formulation Data supplied by the manufacturer.

1. Substance / preparation and company designation

Commercial product name: **TempGuard Heat Shield (Pty) Ltd**
Manufacturer / emergency phone number: **+27 (0) 16 065 0027**
Physical Address: **SOUTH AFRICA**

Date Revised: **February 2024**

2. Product Description/Composition/Information on components

Heat resistant and heat -dissipating Gel. containing the listing of substances / substance classes in Table 2.1 below.

Table 2.1

Composition*	CAS No.	TLV	Content*
Substances that give product its risk properties:(Read under"11. Health hazard / Information on toxicology" specific information on the relevant substances)			
Curable Silicon's	-	Nat establ.	<10%
Sodium containing clay	1302-78-9	Not establ.	<20%
Colloidal Silica ²	112945-52-5	Not establ.	<10%
Emulsifier	-	Not establ.	<5%
Organic pigment	61-73-4	Not establ.	<1%
Substances / substance group with risk properties:			
Water	-	-	Up to 90%

*Detailed names and composition are confidential between CSIR and TempGuard Heat Shield (Pty)Ltd

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3. Possible risks

(See also “11. Health hazard / Information on toxicology”)

Inhalation of the product, especially when dried or heated may irritate the respiratory pathways. Expected risk when handling the wet product at room temperature: negligible.

Eye contact with the product may cause mechanical or chemical irritation.

Skin Contact with dry product may lead to irritation. Expected risk when handling the product at room temperature: Very low

Ingestion of the product may lead to pain, nausea, vomiting and diarrhoea.

4. First aid measures

These measures are base only on potential health hazards associated with the constituents of the product. The product has not been tested by the compilers of tis MSDS for the health hazards in its intended application (i.e.as a heat resist and heat-dissipating barrier)

- After inhalation of any thermal decomposition products (in case fire):
Remove the victim to a well-ventilated area. Administer artificial respiration in case of irregular breathing or respiratory breakdown.
- After eye contact:
Immediately flush the contaminated eye/s with large amount of water, keeping eyelid/s open.
- After skin contact:
If any irritation should occur, wash the contaminated skin with plenty of water.
- After ingestion:
Rest victim and obtain medical attention. Treat symptomatically.

5. Firefighting procedures

The product is specified by the manufacturer as non-combustible. Suitable extinguishing media are as appropriate for combustibles in the area.

6. Measures in case of accidental release

Remove / recollect mechanically, and wash away residues with large amount of water.

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7. Storage and handling

The product is specified by the manufacturer, and expected by the compliers of this sheet, to be stable under normal storage and handling conditions. No protection against fire and explosion should be necessary. The container should be stored well-sealed to prevent drying.

8. Limitation of exposure and personal protective equipment

Avoid contact with eyes.

Although contact of skin with product is not expected to cause negative effects, such contact should nevertheless be limited to the possible minimum.

Wash exposed skin after use with plenty water.

Do not eat or drink while using this product.

Personal protective equipment:

The product itself is intended by the manufacturer as heat-protective equipment.

Other protective equipment should still be worn, as required by the application/s for which the product is intended.

9. Physical and chemical properties

9.1	Appearance:	Blue gel or emulsion
9.2	Odour:	None
9.3	Boiling point:	not applicable
9.4	Melting point:	not applicable
9.5	Vapour density:	As water
9.6	Evaporation rate:	Not tested
9.7	Density (20°C):	0.9-1.3g/cm ³ (gel)
9.8	Vapour pressure (20°C):	As water
9.9	Solubility in water:	High
9.10	pH:	8-9 (specified average: ca 8.6)
9.11	Flash point:	Not applicable
9.12	Ignition temperature:	Not applicable
9.13	Lower explosion limit:	Not applicable

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10. Stability and reactivity

No known danger of explosion exists. The product is expected to be highly stable from compositional data supplied by the manufacturer. Contact of the product with concentrated acids could liberate some heat and small amounts of gases.

11. Health hazard / Information of toxicology

Compositional data supplied by the manufacturer point to low acute toxicity.

Inhalation of some or all of the hazardous substances listed under section 2 can lead to irritation of respiratory pathways, and in extreme cases, silicosis of the respiratory tissue. Given the product formulation (aqueous gel/ emulsion), this risk is expected to be negligible when handling the product at a room temperature (20 – 30°C)

Eye contact with some or all of the hazardous substances listed under section 2 can lead to mechanical and chemical irritation. A similar risk is expected for the formulated product.

Skin contact with some or all of the hazardous substances listed under section 2 can lead to irritation. Given the product formulation (aqueous gel / emulsion) and specification by the manufacturer, this risk is expected to be very low.

Ingestion with some or all of the hazardous substances listed under section 2 can lead to pain, nausea, vomiting and diarrhoea. A similar risk is expected for the formulated product.

12. Information on ecology

No information available

13. Disposal considerations

According to manufacturer specifications, used or split product may be washed away with water. No information on the effect of the product on sewerage systems is available, but impacts are expected to be low.

14. Transport information

Not regulated

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15. Regulatory Information

Not regulated

16. Other information

Not applicable

CSIR Manufacturing & Materials provides the information herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document has been prepared based solely on Material safety Data Sheets of the constituents of TempGuard Gel, as listed in the compositional and formulation data supplied by the manufacturer. Health and safety impact of separate constituents have been considered, including a weighting according to their respective concentrations in the product. Cumulative effects of the sum of constituents, however, not been consider. The document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving the information must exercise their independent judgement in determining its appropriateness' for a particular purpose. Properties and requirement relevant to safety considerations have not been tested by the authors. This material and data sheet does not represent guarantees, specifications or endorsement by CSIR.

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