1 Identification of substance:

- **Product details:**
  - **Trade name:** OTTOSEAL S 51
  - **Application of the substance / the preparation** Silicone sealant

- **Manufacturer/Supplier:**
  - Hermann Otto GmbH
  - Krankenhausstraße 14
  - D-83413 Fridolfing
  - Tel.: 0049/(0)8684/908-0
  - Fax.: 0049/(0)8684/908-539

- **Further information obtainable from:**
  - Tel.: 0049- (0)8684- 908- 641 (-460)
  - E-Mail: alois.parzinger@otto-chemie.de

- **Information in case of emergency:**
  - Tel.: 0049- (0)89- 192 40 (emergency telephone no.)

2 Hazards identification

- **Hazard description:**
  - Xi Irritant

- **Information concerning to particular hazards to man and environment**
  - The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - **R 36/38 Irritating to eyes and skin.**

- **Classification system**
  - The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Additional information:**
  - During the application and curing process of the material reaction products of the crosslinker are released as vapour. Therefore ensure good ventilation or exhaustion if necessary.

3 Composition/information on ingredients

- **Chemical characterization**
  - **Description:** Polydimethylsiloxane, filler, auxiliaries and amine-oxime-silane crosslinker

- **Dangerous components:**
  - CAS: 15901-40-3 N,N',N''-tricyclohexyl-1-methylsilanetriamine < 2.5%
  - EINECS: 240-040-8 C, Xn; R 21/22-35
  - CAS: 22984-54-9 butan-2-one 0,0'0''-(methylsilylidyne)trioxime < 2.5%
  - EINECS: 245-366-4 Xn, Xi; R 21-36/38-43

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

4 First aid measures

- **After inhalation**
  - Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

- **After skin contact**
  - Immediately wash with water and soap and rinse thoroughly.
  - If skin irritation continues, consult a doctor.

- **After eye contact**
  - Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing**
  - Do not induce vomiting; call for medical help immediately. Show container or label.
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Rinse out mouth and then drink plenty of water in small amounts (if person is conscious).

5 Firefighting measures

- **Suitable extinguishing agents**
  CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards caused by the substance, its products of combustion or resulting gases:**
  Formation of toxic gases is possible during heating or in case of fire.

- **Protective equipment:**
  Mount respiratory protective device.
  Do not inhale explosion gases or combustion gases.

6 Accidental Release Measures

- **Person-related safety precautions:** Ensure adequate ventilation
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collection:** Dispose contaminated material as waste according to item 13.
  Pick up mechanically.
- **Additional information:** See Section 8 for information on personal protection equipment.

7 Handling and Storage

- **Handling**
  - **Information for safe handling:**
    Ensure good ventilation/exhaustion at the workplace.
    See item 8: Personal protective equipment

- **Storage**
  - **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
  - **Information about storage in one common storage facility:** Store away from foodstuffs.
  - **Further information about storage conditions:**
    Store in cool, dry conditions in well sealed receptacles.
    Protect from heat and direct sunlight.

8 Exposure Controls and Personal Protection Gear

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

- **Ingredients with limit values that require monitoring at the workplace:**
  108-91-8 cyclohexylamine
  - WEL Long-term value: 41 mg/m³, 10 ppm
  - **Additional information:** The lists valid during the making were used as basis.

- **Personal protective equipment**
- **General protective and hygienic measures**
  The usual precautionary measures are to be adhered to when handling chemicals.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.

- **Respiratory protection:**
  Not necessary if room is well-ventilated.
  Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:** Protective gloves.

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
  Fluorocarbon rubber (Viton)
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- Nitrile rubber, NBR
- Natural rubber, NR

- Penetration time of glove material
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Safety glasses
- Body protection: Protective work clothing.

9 Physical and chemical properties:

- General Information
  - Form: pasty
  - Colour: According to product specification
  - Odour: Characteristic

- Change in condition
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: undetermined

- Flash point: Not applicable
- Self-igniting: Product is not self-igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Density at 20°C: 1.35 g/cm³

- Solubility in / Miscibility with Water: Not miscible or difficult to mix

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
  Avoid strong heating.

- Dangerous reactions: No dangerous reactions known
- Dangerous decomposition products:
  Tests on representative products have shown that above temperatures of 150°C small quantities of formaldehyde are split off.
  see item 5.3

11 Toxicological information

- Acute toxicity:
- Primary irritant effect:
  - on the skin: Irritating effects to skin and mucous membranes possible
  - on the eye: Irritating effect possible
- Other information (about experimental toxicology):
  In curing the material splits off a small amount of cyclohexylamin (see item 8). This may cause irritating effects to skin and eyes.
  During the application of the product butanone-2-oxime (MEKO) is released. If MEKO is breathed in in high concentrations over a long period (e.g. in case of insufficient ventilation), it might cause irreversible health defects.
  After curing the material is odourless and completely harmless.
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- Additional toxicological information:
  Product has not been tested. Assessment is based on the ingredients. Observe the information in point 15.

12 Ecological information:
- Information about elimination (persistence and degradability):
  - Other information: The product is difficultly biodegradable.
  - General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
    Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations
- Product:
  - Recommendation
    Observe local by-laws.
    Already cured material can be disposed of with the domestic or commercial waste.
    Unconsumed material (fluid, paste-like) is to dispose of as hazardous waste.
- Uncleaned packaging:
  - Recommendation:
    Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
    Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14 Transport information
- Land transport ADR/RID (cross-border)
  - ADR/RID class: -
- Maritime transport IMDG:
  - IMDG Class: -
  - Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class: -
  - Transport/Additional information: Not dangerous according to the above specifications.

15 Regulations
- Labelling according to EU guidelines:
  The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- Code letter and hazard designation of product:
  Xi Irritant
- Risk phrases:
  36/38 Irritating to eyes and skin.
- Safety phrases:
  2 Keep out of the reach of children.
  23 Do not breathe fumes/aerosol.
  36/37 Wear suitable protective clothing and gloves.
  45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Safety Data Sheet  
according to 1907/2006/EC, Article 31  

Printing date 29.12.2009  
Revision: 29.12.2009

Trade name: OTTOSEAL S 51

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- **Special labelling of certain preparations:**  
  Contains mixture of butanone oximosilanes and butanone oxime. May produce an allergic reaction.

- **National regulations**

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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 R-phrases**
  21 Harmful in contact with skin.
  21/22 Harmful in contact with skin and if swallowed.
  35 Causes severe burns.
  36/38 Irritating to eyes and skin.
  43 May cause sensitisation by skin contact.

- **Department issuing MSDS:** Tel.: 0049- (0)8684- 908- 641
- **Contact:** Tel.: 0049- (0)8684- 908- 641 ( -460 )
- **Data compared to the previous version altered.**