1 Identification of substance:

- Product details:
  - Trade name: OTTOSEAL S 110
  - 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: not applicable

- Information concerning to particular hazards to man and environment:
  Preparation is not hazardous in terms of directive 1999/45/EU.

- 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 oximosilane crosslinker

- Dangerous components:
  
<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Xi; R</th>
<th>Xn; R</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 2224-33-1</td>
<td>Butanonoximvinylsilan</td>
<td>&lt; 5%</td>
<td></td>
</tr>
<tr>
<td>EINECS: 218-747-8</td>
<td>Xi; R 37/38-41-43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 2768-02-7</td>
<td>trimethoxyvinylsilane</td>
<td>&lt; 2.5%</td>
<td></td>
</tr>
<tr>
<td>EINECS: 220-449-8</td>
<td>Xn; R 10-20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 128446-60-6</td>
<td>3- Aminopropyl (methyl)silsesquioxane, ethoxy- terminiert</td>
<td>&lt; 2.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Xi; R 10-36/38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 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. Rinse out mouth and then drink plenty of water in small amounts (if person is conscious).

(Contd. on page 2)
5 Fire fighting 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/collecting:
  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:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional Occupational Exposure Limit Values for possible hazards during processing:
  67-56-1 methanol
  OES Short-term value: 333 mg/m³, 250 ppm
  Long-term value: 266 mg/m³, 200 ppm
  Sk, ILV
- 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)
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: 1.17 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):
During the application of the product butanone-2-oxime (MEKO) is released. MEKO might affect the mucous membrane of the nose by long time exposition. If MEKO is breathed 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.

Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
Trade name: OTTOSEAL S 110

Product has not been tested. Assessment analogue to a similar product.

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:
  Observe the general safety regulations when handling chemicals
  The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- Special labelling of certain preparations:
  Contains mixture of butanone oximosilanes and butanone oxime. May produce an allergic reaction.
  Safety data sheet available for professional user on request.
- 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.

(Contd. on page 5)
<table>
<thead>
<tr>
<th>Relevant R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Flammable.</td>
</tr>
<tr>
<td>20 Harmful by inhalation.</td>
</tr>
<tr>
<td>36/38 Irritating to eyes and skin.</td>
</tr>
<tr>
<td>37/38 Irritating to respiratory system and skin.</td>
</tr>
<tr>
<td>41 Risk of serious damage to eyes.</td>
</tr>
<tr>
<td>43 May cause sensitisation by skin contact.</td>
</tr>
</tbody>
</table>

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