Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.06.2026 Version 6 (replaces version 5) Revision: 30.06.2026

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

· **1.1 Product identifier**

· **Trade name: OTTOSEAL S 51**
· **UFI:**
QTD1-90SH-D00H-66FE

This mixture contains nanoforms according to the REACH regulation.
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Product category** PC1 Adhesives, sealants
· **Application of the substance / the mixture** Silicone sealant
· **Uses advised against** Observe the information in the technical data sheet

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Hermann Otto GmbH
Krankenhausstraße 14
D-83413 Fridolfing
Tel.: 0049/(0)8684/908-0
Fax.: 0049/(0)8684/908-1840

· **Further information obtainable from:**
Tel.: 0049- (0)8684- 908- 2363 (-4300)
E-Mail: msds@otto-chemie.de
· **1.4 Emergency telephone number:**
+44 1865 407333 (Carechem 24)
Tel.: 0049- (0) 89- 192 40 (emergency telephone no.)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**



GHS07

· **Signal word** Warning
· **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
· **Precautionary statements**
P102 Keep out of reach of children.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection.
P501 Dispose of contents/container in accordance with local regulations.
· **Additional information:** Ensure good ventilation during application and curing.

(Contd. on page 2)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.06.2026 Version 6 (replaces version 5) Revision: 30.06.2026

Trade name: OTTOSEAL S 51

(Contd. of page 1)

· **2.3 Other hazards**
During processing and curing of the material, chemical substances are released into the air (see point 11). Therefore, ensure good room ventilation and, if necessary, exhaust ventilation.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable
· **Determination of endocrine-disrupting properties**
This product does not contain components that are endocrine disruptors according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Polydimethylsiloxane, filler, auxiliaries and amine-oxime-silane crosslinker
· **Dangerous components:**

CAS: 15901-40-3 EINECS: 240-040-8 Reg.nr.: 01-2120765341-58-0000	N,N',N''-tricyclohexyl-1-methylsilanetriamine Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312	<2.5%
CAS: 37859-55-5 ELINCS: 484-460-1 Reg.nr.: 01-2120004323-76-xxxx	2-Pentanone, O,O´,O´´-(methylsilylidyne)trioxime Acute Tox. 4, H302; Eye Irrit. 2, H319	<2.5%

· **Additional information**
For the wording of the listed hazard phrases refer to section 16.
Particulate raw materials with risk of inhalation are inextricably bound in the product and therefore does not trigger classification of the product for inhalation hazards. Due to the product's physical properties, particulate inhalation exposure is not possible.

SECTION 4: First aid measures

· **4.1 Description of 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.
· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.

(Contd. on page 3)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

(Contd. of page 2)

· **5.3 Advice for firefighters**
· **Protective equipment:**
Mount respiratory protective device.
Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
· **6.4 Reference to other sections** See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
see item 8: Personal protective equipment

· **7.2 Conditions for safe storage, including any incompatibilities**
· **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.
· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**
· **Additional information:**
The lists valid during the making were used as basis.
Reaction product 2-Pentanoneoxime CAS: 623-40-5
DNEL (Data for WORKERS)
INHALATION Exposure
Systemic Effects
Long-term: (DNEL) 8,3 mg/m3
Acute/ short term: (DNEL) 24,9 mg/m3
Source: ECHA

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as 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:**
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e.type ABEK according to standard EN 14387) is used.

(Contd. on page 4)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.06.2026 Version 6 (replaces version 5) Revision: 30.06.2026

Trade name: OTTOSEAL S 51

(Contd. of page 3)

· **Hand protection** 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.
Recommended glove types: nitrile rubber
Recommended thickness of the material: >0,4 mm
· **Penetration time of glove material** Breakthrough time: 10 - 30 min
· **Eye/face protection** Safety glasses
· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**

· **Physical state**	Liquid
· **Colour:**	According to product specification
· **Odour:**	Characteristic
· **Melting point/freezing point:**	undetermined
· **Boiling point or initial boiling point and boiling range**	undetermined
· **Lower and upper explosion limit**	
· **Lower:**	not applicable
· **Upper:**	not applicable
· **Flash point:**	Not applicable (test methods for flash point not valid for pasty substances and highly viscous liquids)
· **Decomposition temperature:**	Not determined
· **pH**	Not determined
· **Viscosity:**	Not determined
· **Solubility**	
· **Water:**	Insoluble
· **Partition coefficient n-octanol/water (log value)**	Not determined
· **Vapour pressure:**	Not determined
· **Density and/or relative density**	
· **Density:**	see technical data sheet
· **Relative density**	Not determined
· **Vapour density**	Not applicable
· **Particle characteristics**	undetermined

· **9.2 Other information**

· **Form:**	pasty
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Information with regard to physical hazard classes**	
· **Aerosols**	Void
· **Flammable liquids**	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

(Contd. on page 5)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Trade name: OTTOSEAL S 51

(Contd. of page 4)

· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
Avoid strong heating.
· **10.3 Possibility of hazardous reactions**
Under the effect of humidity, water und protic agents: cyclohexylamin.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:**
see item 5.2
Tests on representative products have shown that above temperatures of 150° C small quantities of formaldehyde are split off.

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.
· **LD/LC50 values relevant for classification:**

15901-40-3 N,N',N''-tricyclohexyl-1-methylsilanetriamine
Oral LD50 637 mg/kg (rat)
Dermal LD50 1,594 mg/kg (rat)

37859-55-5 2-Pentanone, O,O´,O´´-(methylsilylidyne)trioxime
Oral LD50 1,234 mg/kg (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Causes skin irritation.
· **Serious eye damage/irritation** Causes serious eye irritation.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **Other information (about experimental toxicology):**
During the application of the product 2-Pentanonoxim (CAS: 623-40-5) is released. 2-Pentanonoxim is harmful if swallowed, causes serious eye irritation, may cause damage to organs through prolonged or repeated exposure and is harmful to aquatic life with long lasting effects.
In contact with dampness product separates a small quantity of cyclohexylamine (108-91-8) which irritates skin, mucous membranes and respiratory system.
· **11.2 Information on other hazards**
· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity** No further relevant information available
· **12.2 Persistence and degradability** No further relevant information available.
· **Other information:** Product is not biodegradable.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.

(Contd. on page 6)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.06.2026 Version 6 (replaces version 5) Revision: 30.06.2026

Trade name: OTTOSEAL S 51

(Contd. of page 5)

· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable
· **12.6 Endocrine disrupting properties**
This product does not contain components that are endocrine disruptors according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.
· **12.7 Other adverse effects**
· **Additional ecological information:**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **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.

SECTION 14: Transport information

· **14.1 UN number or ID number**
· **ADR, ADN, IMDG, IATA** Void
· **14.2 UN proper shipping name**
· **ADR, ADN, IMDG, IATA** Void
· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**
· **Class** Void
· **14.4 Packing group**
· **ADR, IMDG, IATA** Void
· **14.5 Environmental hazards:**
· **Marine pollutant:** No
· **14.6 Special precautions for user** Not applicable
· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable

· **Transport/Additional information:** Not dangerous according to the above specifications.
· **UN "Model Regulation":** Void

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

(Contd. on page 7)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.06.2026 Version 6 (replaces version 5) Revision: 30.06.2026

Trade name: OTTOSEAL S 51

(Contd. of page 6)

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
· **REGULATION (EU) 2019/1148**
· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.
· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.
· **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.
· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.

· **National regulations**

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
· **Details of international registration status:**
Listed on or in accordance with the following inventories:

REACH - Europe	listed
AICS - Australia	listed
DSL - Canada	not listed
IECSC - China	not listed
ENCS - Japan	not listed
NZIoC - New Zealand	not listed
PICCS - Philippines	not listed
ECL - Korea	not listed
TSCA - USA	listed
TCSI - Taiwan	listed

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.
This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Relevant phrases**
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.
· **Version number of previous version:** 5
· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent

(Contd. on page 8)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.06.2026 *Version 6 (replaces version 5)* *Revision: 30.06.2026*

Trade name: OTTOSEAL S 51

(Contd. of page 7)

LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2