



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

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

- **Product identifier**
- **Trade name: Hardener paste**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
Hardener paste for all condensation-vulcanising silicones for the earmould impression technique.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dreve Dentamid GmbH
Max-Planck-Straße 31
59423 Unna / Germany
Tel.: ++49 2303 / 8807-0
Fax.: ++49 2303 / 8807-55
- **Further information obtainable from:**
Department Research & Development
Fax.: ++49 2303 / 8807-562
Email: sicherheitsdatenblatt@dreve.de
- **Emergency telephone number:**
49(0)211/797-3350
Plant Fire Department Henkel

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R48/22-62-63: Harmful: danger of serious damage to health by prolonged exposure if swallowed. Possible risk of impaired fertility. Possible risk of harm to the unborn child.



Xi; Sensitising

R43: May cause sensitisation by skin contact.

- **Information concerning particular hazards for human 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.

- **Classification system:**

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

(Contd. on page 2)



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: Hardener paste

(Contd. of page 1)

- **Label elements**

- **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:**



Xn Harmful

- **Hazard-determining components of labelling:**

dioctyltin oxide
Dioctyltinacetylacetonate

- **Risk phrases:**

43 May cause sensitisation by skin contact.
48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
62 Possible risk of impaired fertility.
63 Possible risk of harm to the unborn child.

- **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
24 Avoid contact with skin.
37/39 Wear suitable gloves and eye/face protection.
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 8002-74-2 EINECS: 232-315-6	Paraffin waxes and Hydrocarbon waxes	25-50%
CAS: 18765-38-3 EINECS: 242-560-0	tetrakis (2-butoxyethoxy) silane Xi R38 Skin Irrit. 2, H315	10-25%
CAS: 870-08-6 EINECS: 212-791-1	dioctyltin oxide Xn R48/22 R53 STOT RE 2, H373; Aquatic Chronic 4, H413	10-25%

(Contd. on page 3)

GB



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: **Hardener paste**

(Contd. of page 2)

CAS: 54068-28-9	Diocetylacetylacetonate Xn R48/22-62-63; Xi R43 R52/53 Repr. 2, H361; STOT RE 2, H373; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 2768-02-7 EINECS: 220-449-8	trimethoxyvinylsilane Xn R20 R10 Flam. Liq. 3, H226; Acute Tox. 4, H332	2.5-10%

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

4 First aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid contact with skin and eyes.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

GB

(Contd. on page 4)



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: **Hardener paste**

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Keep container tightly sealed.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

· **Ingredients with limit values that require monitoring at the workplace:**

8002-74-2 Paraffin waxes and Hydrocarbon waxes

WEL	Short-term value: 6 mg/m ³ Long-term value: 2 mg/m ³
-----	---

870-08-6 dioctyltin oxide

WEL	Short-term value: 0.2 mg/m ³ Long-term value: 0.1 mg/m ³ as Sn; Sk
-----	--

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 5)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: **Hardener paste**

(Contd. of page 4)

- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Solid
Colour: Different according to colouring

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value: Not applicable.

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 160°C

· Flash point: Not applicable.

· Flammability (solid, gaseous): „not highly flammable" according UN-Method N.1, EG-A10

· Ignition temperature: 400°C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
Upper: Not determined.

· Vapour pressure at 20°C: 1 hPa

· Density at 20°C: 0.97 g/cm³

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not applicable.

· Solubility in / Miscibility with water:

Insoluble.

· Segregation coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not applicable.
Kinematic: Not applicable.

· Other information: No further relevant information available.

GB

(Contd. on page 6)



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: **Hardener paste**

(Contd. of page 5)

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

870-08-6 dioctyltin oxide

Oral	LD50	2500 mg/kg (rat)
------	------	------------------

54068-28-9 Dioctyltinacetylacetonate

Oral	LD50	2500 mg/kg (rat) (GLP Study nach OECD 423)
------	------	--

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

GB

(Contd. on page 7)



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: **Hardener paste**

(Contd. of page 6)

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Disposal must be made according to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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:** -
- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
NK	≤ 2,5
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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 phrases**
 - H226 Flammable liquid and vapour.
 - H315 Causes skin irritation.
 - H317 May cause an allergic skin reaction.
 - H332 Harmful if inhaled.
 - H361 Suspected of damaging fertility or the unborn child.
 - H373 May cause damage to organs through prolonged or repeated exposure.
 - H412 Harmful to aquatic life with long lasting effects.
 - H413 May cause long lasting harmful effects to aquatic life.

(Contd. on page 8)

GB



Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.05.2011

Revision: 10.05.2011

Trade name: Hardener paste

(Contd. of page 7)

- R10 Flammable.
- R20 Harmful by inhalation.
- R38 Irritating to skin.
- R43 May cause sensitisation by skin contact.
- R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R53 May cause long-term adverse effects in the aquatic environment.
- R62 Possible risk of impaired fertility.
- R63 Possible risk of harm to the unborn child.

· **Department issuing MSDS:** Department Research & Development

· **Contact:** Dr. Thomas Veit, Dr. Reiner Altmann, Lothar Sutor

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

GB