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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: HEAT CONDUCTIVE PASTE

Cat. No. 40300001

Container size: 20 g

Relevant identified uses of the substance or mixture and uses advised against

Application: Conductive paste

Details of the supplier of the safety data sheet

Supplier: Struers A/S

Pederstrupvej 84 DK-2750 Ballerup Tel:+45 44 600 800

Responsible for material Responsible for material safety data sheet authoring: DHI

safety data sheet authoring: Any questions to the contents of this material safety data sheet should be sent to:

Lisbeth.Mygind@struers.dk

Emergency telephone number

Emergency telephone: Infotrac:

1-800-535-5053 Struers US: 1-440-871-0071

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

The product is classified:

67/548/EEC / 1999/45/EC: N;R50/53

GHS: Aquatic Acute 1;H400 - Aquatic Chronic 1;H410 (*)

Label elements

(*)



Warning

H410 Very toxic to aquatic life with long lasting effects.

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local regulations.

NFPA Rating: Health:0 Fire:1 Reactivity:0 Other:-

Other hazards

PBT/vPvB: Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: silicon and metal oxides.

67/548/EEC:

%: CAS-No.: EC No.: REACH Reg. Chemical name: Hazard classification: Notes:

No:

50-100 1314-13-2 215-222-5 01-2119463881 Zinc oxide N;R50-53

-XXXX

GHS:

<u>%:</u> <u>CAS-No.:</u> <u>EC No.:</u> <u>REACH Reg.</u> <u>Chemical name:</u> <u>Hazard classification:</u> <u>Notes:</u>

No:

50-100 1314-13-2 215-222-5 01-2119463881 Zinc oxide Aquatic Acute 1;H400

-xxxx Aquatic Chronic 1;H410

References: The full text for all R-phrases and hazard statements are displayed in section 16.

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SECTION 4: FIRST AID MEASURES

Description of first aid measures

<u>Inhalation:</u> Move into fresh air and keep at rest.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact

lenses and open eyelids widely. If irritation persists: Seek medical attention and

bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under

observation. If person becomes uncomfortable take to hospital along with these

instructions.

Most important symptoms and effects, both acute and delayed

<u>Symptoms/effects:</u> See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Not known.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Special hazards arising from the substance or mixture

<u>Specific hazards:</u> No specific precautions.

Advice for firefighters

<u>Protective equipment for</u> Selection of respiratory protection for fire fighting: follow the general fire

<u>fire-fighters:</u> precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

<u>Personal precautions:</u> Avoid contact with skin and eyes.

Environmental precautions

Environmental Avoid discharge onto the ground.

precautions:

Methods and material for containment and cleaning up

Spill Cleanup Methods: Dam and absorb spillage with sand, sawdust or other absorbent.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid inhalation of dust. Observe good chemical hygiene practices.

Technical measures: Work practice should minimize contact.

Technical precautions: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities

Technical measures for safe No special precautions.

storage:

Storage conditions: Store in tightly closed original container.

Specific end use(s)

Specific use(s): Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
1314-13-2	Zinc oxide, fume	-	5 mg/m3	TWA	-	OSHA
1314-13-2	Zinc oxide, total dust	-	15 mg/m3	TWA	-	OSHA
1314-13-2	Zinc oxide, respirable dust	-	5 mg/m3	TWA	-	OSHA
1314-13-2	Zinc oxide, respirable fraction	-	2 mg/m3	TWA	-	ACGIH
		-	10 mg/m3	STEL	15min	

Exposure controls

Provide adequate ventilation. Observe Occupational Exposure Limits and **Engineering measures:**

minimize the risk of inhalation. (*)

Personal protection equipment should be chosen according to the CEN Personal protection:

standards and in discussion with the supplier of the personal protective

equipment.

Respiratory equipment: In case of inadequate ventilation and work of brief duration, use suitable

respiratory equipment. Use respiratory equipment with combination filter, type

A2/P2. (*)

Hand protection: Risk of contact: Wear protective gloves. Nitrile gloves or rubber gloves are

recommended.

Risk of splashes: Wear goggles/face shield. Eye protection:

Skin protection: No special precautions.

Environmental Exposure

Not available.

Controls:

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: white paste

Odor: Odorless.

pH: Not available.

Boiling point: Not available.

Flash point: >101 °C

Explosion limits: Not available.

Relative density: 2,0

<u>Solubility:</u> insoluble in water <u>Decomposition</u> Not available.

temperature (°C):
Other information

Other data: Volatile Organic Compound (VOC): 0 g/l

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None known.

Chemical stability

<u>Stability:</u> Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: None known.

Conditions to avoid

Conditions/materials to avoid: Oxidizing agents.

Incompatible materials

<u>Incompatible materials:</u> None known.

Hazardous decomposition products

<u>Hazardous decomposition</u> None in particular.

products:

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

<u>Inhalation:</u> Not relevant at normal room temperatures.

Skin contact: Prolonged contact may cause redness and irritation.

Eye contact: May irritate.

Ingestion: No harmful effects expected in amounts likely to be ingested by accident.

Specific effects: Risk of long-term effects is expected to be minimal from occupational exposure.

Carcinogenicity:

National Toxicology Program (NTP): No.

I.A.R.C. Monographs: No.

OSHA: No.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Very toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment. Very toxic to aquatic life with long lasting effects.

Persistence and degradability

<u>Degradability:</u> There are no data on the degradability of this product.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: No data available.

Results of PBT and vPvB assessment

PBT/vPvB: Not relevant.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

Waste from residues: EWC-code:16 05 08

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SECTION 14: TRANSPORT INFORMATION

UN number

UN-No: 3077

UN proper shipping name

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide)

Additional IMDG information:

EmS: F-A, S-F MFAG: 1

Transport hazard class(es)

9 Class:

Packing group

Ш PG:

Environmental hazards

Yes. Marine pollutant: Yes.

Environmentally Hazardous

substance:

Special precautions for user

Special precautions: None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

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

Special provisions: TSCA: Listed. National regulation: Europe/USA:

This Material Safety Data Sheet has been prepared according to the

EU-regulation.

Threshold Limit Values (2014), ACGIH, by the American Conference on

Governmental Industrial Hygienists.

The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and

Health Standards, Air contaminants (OSHA), with amendments.

Chemical Safety Assessment

CSA status: Not relevant.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 2, 8.

The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Allan Vorup

Additional information: Classification according to Regulation (EC) No. 1272/2008:

Calculation method.

Wording of H-statements:

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark. www.dhigroup.com.