SAFETY DATA SHEET

Thermal conductive paste H

according to Regulation (EC) No 1907/2006 (REACH) as amended

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

1.1. Product identifier

Substance / mixture
Thermal conductive paste H

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

mixture's intended use
Heat transferring agent.

Disapproved uses of mixture
The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Manufacturer
AG TermoPasty Grzegorz Gąsowski
Kolejowa 33 E, Sokoły, 18-218
Poland
Identification number (ID)
200133730
VAT Reg No
9661767714
Phone
862741342
E-mail
biuro@termopasty.pl
Web address
www.termopasty.pl

Competent person responsible for the safety data sheet
Name
AG TermoPasty Grzegorz Gąsowski
E-mail
biuro@termopasty.pl

1.4. Emergency telephone number

National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111

SECTION 2: Hazards identification

2.1. Substance or mixture classification

Classification of the mixture in accordance with Regulation (EC) No 1272/2008
The mixture is classified as dangerous.

Aquatic Acute 1, H400
Aquatic Chronic 1, H410

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment
Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram

Signal word
Warning

Hazard statements
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
P501 Dispose of contents/container to in accordance with national regulations.

2.3. Other hazards
Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.
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<table>
<thead>
<tr>
<th>Identification numbers</th>
<th>Substance name</th>
<th>Content in % weight</th>
<th>Classification according to Regulation (EC) No 1272/2008</th>
<th>Note.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index: 030-013-00-7</td>
<td>zinc oxide</td>
<td>50-80</td>
<td>Aquatic Acute 1, H400</td>
<td></td>
</tr>
<tr>
<td>CAS: 1314-13-2</td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
<td></td>
</tr>
<tr>
<td>EC: 215-222-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full text of all classifications and hazard statements is given in the section 16.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization
Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

SECTION 4: First aid measures

4.1. Description of first aid measures
Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

Inhalation
Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

Skin contact
Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

Eye contact
Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes.

Ingestion
Rinse out the mouth with clean water. In the event of issues, find medical help.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation
Not expected.

Skin contact
Not expected.

Eye contact
Not expected.

Ingestion
Not expected.

4.3. Indication of any immediate medical attention and special treatment needed
Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media
Water - full jet.

5.2. Special hazards arising from the substance or mixture
In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters
Use a self-contained breathing apparatus and full-body protective clothing. Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8.

6.2. Environmental precautions
Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.

6.3. Methods and material for containment and cleaning up
Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in the section 13.

6.4. Reference to other sections
See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities
Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

7.3. Specific end use(s)
not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
The mixture contains substances for which occupational exposure limits are set.

United Kingdom of Great Britain and Northern Ireland

<table>
<thead>
<tr>
<th>Substance name (component)</th>
<th>Type</th>
<th>Time of exposure</th>
<th>Value</th>
<th>Note</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc oxide (CAS: 1314-13-2)</td>
<td>WEL</td>
<td>8 hours</td>
<td>5 mg/m³</td>
<td>Respirable dust, Fume</td>
<td>Gestis</td>
</tr>
<tr>
<td></td>
<td>WEL</td>
<td>Short-term</td>
<td>10 mg/m³</td>
<td>Respirable dust, Fume</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection
It is not needed.

Skin protection
Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

Respiratory protection
It is not needed.

Thermal hazard
Not available.

Environmental exposure controls
Observe usual measures for protection of the environment, see Section 6.2. Collect spillage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>paste</td>
</tr>
<tr>
<td>Physical state</td>
<td>solid at 20°C</td>
</tr>
<tr>
<td>color</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>data not available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>data not available</td>
</tr>
<tr>
<td>pH</td>
<td>data not available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-50 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>data not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>350 °C</td>
</tr>
</tbody>
</table>
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Evaporation rate data not available
Flammability (solid, gas) data not available
Upper/lower flammability or explosive limits
  flammability limits data not available
  explosive limits data not available
Vapour pressure data not available
Vapour density data not available
Relative density data not available
Solubility(ies)
  solubility in water insoluble
  solubility in fats data not available
Partition coefficient: n-octanol/water data not available
Auto-ignition temperature data not available
Decomposition temperature data not available
Viscosity data not available
Explosive properties data not available
Oxidising properties data not available

9.2. Other information
Density 2.58 g/cm³ at 20 °C
ignition temperature data not available

SECTION 10: Stability and reactivity

10.1. Reactivity
not available

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
Unknown.

10.4. Conditions to avoid
The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials
Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products
Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
No toxicological data is available for the mixture.

Acute toxicity
Based on available data the classification criteria are not met.

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Parameter</th>
<th>Value</th>
<th>Time of exposure</th>
<th>Species</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD₅₀</td>
<td>&gt;2000 mg/kg</td>
<td></td>
<td>Rat (Rattus norvegicus)</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>LC₅₀</td>
<td>&gt;5.7 mg/l</td>
<td></td>
<td>Rat (Rattus norvegicus)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LOAEL</td>
<td>&gt;5 mg/m³</td>
<td></td>
<td>Human</td>
<td></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Based on available data the classification criteria are not met.
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</tr>
</tbody>
</table>

**Serious eye damage/irritation**
Based on available data the classification criteria are not met.

**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.

**Toxicity for specific target organ - single exposure**
Based on available data the classification criteria are not met.

**Toxicity for specific target organ - repeated exposure**
Based on available data the classification criteria are not met.

**Aspiration hazard**
Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. Based on available data the classification criteria are not met.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Acute toxicity**
Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Time of exposure</th>
<th>Species</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC₅₀</td>
<td>1.1 mg/l</td>
<td>96 hour</td>
<td>Fishes (Oncorhynchus mykiss)</td>
<td></td>
</tr>
<tr>
<td>EC₅₀</td>
<td>&gt;1.0 mg/l</td>
<td>48 hour</td>
<td>Invertebrates (Daphnia magna)</td>
<td></td>
</tr>
<tr>
<td>IC₅₀</td>
<td>0.17 mg/l</td>
<td>72 hour</td>
<td>Algae (Pseudokirchneriella subcapitata)</td>
<td></td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**
Not available.

**12.3. Bioaccumulative potential**
Not available.

**12.4. Mobility in soil**
Not available.

**12.5. Results of PBT and vPvB assessment**
Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

**12.6. Other adverse effects**
Not available.

**SECTION 13: Disposal considerations**
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#### 13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

#### Legislation of waste


#### Waste type code

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 03 10</td>
<td>other insulating and heat transmission oils</td>
</tr>
</tbody>
</table>

#### Packaging waste type code

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 01 10</td>
<td>packaging containing residues of or contaminated by dangerous substances</td>
</tr>
</tbody>
</table>

#### SECTION 14: Transport information

**14.1. UN number**  
Not subject to ADR.

**14.2. UN proper shipping name**  
not available

**14.3. Transport hazard class(es)**  
not available

**14.4. Packing group**  
not available

**14.5. Environmental hazards**  
not available

**14.6. Special precautions for user**  
Reference in the Sections 4 to 8.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**  
not available

#### SECTION 15: Regulatory information

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


**15.2. Chemical safety assessment**  
not available

#### SECTION 16: Other information

**A list of standard risk phrases used in the safety data sheet**

- **H400** Very toxic to aquatic life.
- **H410** Very toxic to aquatic life with long lasting effects.

**Guidelines for safe handling used in the safety data sheet**

- **P273** Avoid release to the environment.
- **P501** Dispose of contents/container to in accordance with national regulations.
Other important information about human health protection
The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet
ADR European agreement concerning the international carriage of dangerous goods by road
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL Derived no-effect level
EC Identification code for each substance listed in EINECS
EC₅₀ Concentration of a substance when it is affected 50% of the population
EINECS European Inventory of Existing Commercial Chemical Substances
EmS Emergency plan
EU European Union
IATA International Air Transport Association
IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC₅₀ Concentration causing 50% blockade
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry
LC₅₀ Lethal concentration of a substance in which it can be expected death of 50% of the population
LD₅₀ Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC Lowest observed adverse effect concentration
LOAEL Lowest observed adverse effect level
log Kow Octanol-water partition coefficient
MARPOL International Convention for the Prevention of Pollution From Ships
NOAEC No observed adverse effect concentration
NOAEL No observed adverse effect level
NOEC No observed effect concentration
NOEL No observed effect level
OEL Occupational Exposure Limits
PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted no-effect concentration
ppm Parts per million
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Agreement on the transport of dangerous goods by rail
UN Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB Substances of unknown or variable composition, complex reaction products or biological materials
VOC Volatile organic compounds
vPvB Very Persistent and very Bioaccumulative

Aquatic Acute Hazardous to the aquatic environment
Aquatic Chronic Hazardous to the aquatic environment

Training guidelines
Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use
not available

Information about data sources used to compile the Safety Data Sheet
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</tr>
</tbody>
</table>


The changes (which information has been added, deleted or modified)
General update

Statement
The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.