

SAFETY DATA SHEET



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

Thermal conductive paste HPX

Creation date 26. April 2005
Revision date 13. April 2018 Version 1.04

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

- 1.1. Product identifier**
Substance / mixture Thermal conductive paste HPX mixture
- 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**
- | | |
|----------------------------|---|
| Name or trade name | AG TermoPasty Grzegorz Gąsowski |
| Address | 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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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

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 030-013-00-7 CAS: 1314-13-2 EC: 215-222-5	zinc oxide	10-<30	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	

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

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

Substance name (component)	Type	Time of exposure	Value	Note	Source
zinc oxide (CAS: 1314-13-2)	WEL	8 hours	5 mg/m ³	Respirable dust, Fume	Gestis
	WEL	Short-term	10 mg/m ³	Respirable dust, Fume	

- 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**
- | | |
|---|--------------------|
| Appearance | paste |
| Physical state | solid at 20°C |
| color | grey |
| Odour | data not available |
| Odour threshold | data not available |
| pH | data not available |
| Melting point/freezing point | -50 °C |
| Initial boiling point and boiling range | data not available |
| Flash point | 350 °C |

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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		2.1 g/cm ³ 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.

zinc oxide

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	>2000 mg/kg		Rat (Rattus norvegicus)	
Inhalation	LC ₅₀	>5.7 mg/l		Rat (Rattus norvegicus)	
	LOAEL	>5 mg/m ³		Human	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

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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.

zinc oxide

Parameter	Value	Time of exposure	Species	Environment
LC ₅₀	1.1 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC ₅₀	>1.0 mg/l	48 hour	Invertebrates (Daphnia magna)	
IC ₅₀	0.17 mg/l	72 hour	Algae (Pseudokirchneriella subcapitata)	

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

Council Directive 75/442/EEC on waste, as amended. Decree No. 383/2001 Coll., on details regarding waste handling as amended. Decree No. 93/2016 Coll., (waste catalogue) as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

13 03 10 other insulating and heat transmission oils

Packaging waste type code

15 01 10 packaging containing residues of or contaminated by dangerous substances

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended (the Chemical Act). Decree No. 432/2003 Coll., laying down conditions for assigning categories to individual jobs, limit values of indices from biological exposure tests, conditions for the sampling of biological materials for biological exposure and the particulars of the reports on work with asbestos and biological agents as amended.

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.

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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
EC ₅₀	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
IC ₅₀	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
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	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 K _{ow}	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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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.