

## 1 Identification

### Product identifier

Trade name: Thermo Paste

### Recommended use and restrictions on use

General use: Heat transfer agent without Silicone

### Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal code, city: Burlington, ON L7L 5N5, CA  
Canada

WWW: [www.ottobock.ca](http://www.ottobock.ca)

Email: [info.canada@ottobock.com](mailto:info.canada@ottobock.com)

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information:

Corporate headquarters:  
Ottobock SE & Co. KGaA  
Max-Näder-Straße 15  
Duderstadt  
Germany

### Emergency telephone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

## 2 Hazard identification

### Classification

Aquatic toxicity - acute 1 Very toxic to aquatic life.

Aquatic toxicity - chronic 1 Very toxic to aquatic life with long lasting effects.

### Information elements

Symbols:



Signal word:

**Warning**

Hazard statements:

Very toxic to aquatic life with long lasting effects.

Precautionary statements:

- Avoid release to the environment.
- Collect spillage.
- Dispose of contents/container to hazardous or special waste collection point.

### Other hazards known to the supplier with respect to the product

- Special danger of slipping by leaking/spilling product.

## 3 Composition/Information on ingredients

### Mixture

Chemical name: Mixture on the basis of Zinc oxide and additives

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 1314-13-2	Zinc oxide	60 - 100 %	Aquatic toxicity - acute 1 (M-factor = 1). Aquatic toxicity - chronic 1 (M-factor = 1).
CAS 122-39-4	Diphenylamine	0 - 1 %	Acute Toxicity 3 (oral). Acute Toxicity 3 (dermal). Acute Toxicity 3 (inhalative). Specific Target Organ Toxicity (Repeated Exposure) 2. Aquatic toxicity - acute 1. Aquatic toxicity - chronic 1.

The actual concentration or concentration range is withheld as a trade secret.

## 4 First-aid measures

### Description of necessary first-aid measures

- In case of inhalation: Move victim to fresh air. Make sure he/she is warm and comfortable. Seek medical attention.
- In case of swallowing: Rinse mouth with water. Do not induce vomiting.  
Never give an unconscious person anything through the mouth.  
Seek medical attention.
- In case of skin contact: Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with soap and plenty of water.  
In case of skin irritation, consult a physician.
- In case of eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

### Most important symptoms and effects, whether acute or delayed

In case of ingestion: stomachache, vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## 5 Fire-fighting measures

### Suitable and unsuitable extinguishing media

Suitable extinguishing media:

foam, extinguishing powder, carbon dioxide.

### Specific hazards arising from the product

Hazardous vapours may form during fires. In case of fire may be liberated: Carbon monoxide and carbon dioxide.

### Special protective equipment and precautions for fire-fighters

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Do not allow water used to extinguish fire to enter drains, ground or waterways.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear appropriate protective equipment.  
Avoid contact with skin and eyes.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains.

### Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.  
Store in special closed containers and dispose of according to ordinance. Final cleaning.  
Recommended cleansing agent: Water

Additional information:

Special danger of slipping by leaking/spilling product.

## 7 Handling and storage

### Precautions for safe handling

Advices on safe handling: When not in use, keep containers tightly closed.

Provide adequate ventilation, and local exhaust as needed.

Avoid contact with skin, eyes, and clothing. Wear appropriate protective equipment.

### Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep only in the original container in a cool, well-ventilated place away from food.

Protect from frost.

## 8 Exposure controls/Personal protection

### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
1314-13-2	Zinc oxide	Canada: Alberta, OEL 15 min	10 mg/m <sup>3</sup>
		Canada: Alberta, OEL 8 hour	2 mg/m <sup>3</sup>
		Canada: BC, OEL STEL	10 mg/m <sup>3</sup> (respirable fraction)
		Canada: BC, OEL TWA	2 mg/m <sup>3</sup> (respirable fraction)
		Canada: Québec, VECD	10 mg/m <sup>3</sup> (respirable fraction)
		Canada: Québec, VEMP	2 mg/m <sup>3</sup> (respirable fraction)
122-39-4	Diphenylamine	Canada: Alberta, OEL 8 hour	10 mg/m <sup>3</sup>
		Canada: BC, OEL TWA	10 mg/m <sup>3</sup>
		Canada: Québec, VEMP	10 mg/m <sup>3</sup>

Additional information: Zinc oxide is embedded in the product and not available as respirable dusts.

### Appropriate engineering controls

Provide adequate ventilation, and local exhaust as needed.

### Individual protection measures, such as personal protective equipment

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material recommended: Butyl caoutchouc (butyl rubber). Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Body protection: Wear suitable protective clothing.

General hygiene considerations: Avoid contact with skin and eyes. Wash hands before breaks and after work. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. When using do not eat, drink or smoke.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	solid
Colour:	Form: pasty white
Odour:	No data available
Odour threshold:	No data available

Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	> 250 °C
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	No data available
Flash point/flash point range:	230 °C (c.c.)
Evaporation rate:	No data available
Auto-ignition temperature:	> 425 °C
Decomposition temperature:	No data available
pH:	Not applicable
Water solubility:	insoluble
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density	No data available
Vapour density:	No data available
Particle characteristics:	No data available

### Additional information

Additional information: Relative density at 20 °C: 2,04

## 10 Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No dangerous reactions with proper and specified storage and handling
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from frost.
Incompatible materials:	No data available
Hazardous decomposition products:	Carbon monoxide and carbon dioxide

## 11 Toxicological information

### Information on the likely routes of exposure

No data available

### Health hazard information

Acute toxicity (oral): Based on available data, the classification criteria are not met.

ATEmix calculated: > 2,000 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

ATEmix calculated: > 2,000 mg/kg

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

ATEmix calculated (Dusts): > 5 mg/L

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

### Symptoms

In case of ingestion: stomachache, vomiting

## 12 Ecological information

### Ecotoxicity

Aquatic toxicity: Very toxic to aquatic life with long lasting effects.

### Persistence and degradability

Further details: No data available

### Bioaccumulative potential

Partition coefficient — n-octanol/water:

No data available

### Mobility in soil

Substance is heavier than water and sinks.

### Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

## 13 Disposal considerations

### Waste treatment methods

#### Product

Recommendation: Dispose of waste according to applicable legislation.

#### Package

Recommendation: Dispose of waste according to applicable legislation.

## 14 Transport information

### UN number

TDG: UN3077

IMDG, IATA-DGR: UN 3077

### UN proper shipping name

TDG, IMDG, IATA-DGR: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide)

### Transport hazard class

TDG: 9

IMDG: Class 9, Subrisk -

IATA-DGR: Class 9

### Packing group

TDG, IMDG, IATA-DGR: III

### Environmental hazards

Marine pollutant: yes



### Special precautions in connection with transport or conveyance either within or outside the premises

#### Canada: Transportation of Dangerous Goods (TDG)

Special Provisions: 16, 99

Explosive limit and limited quantity index: 5 kg

Marine pollutant: P

### Sea transport (IMDG)

EmS: F-A, S-F  
Special Provisions: 274 335 375 966 967 969  
Limited quantities: 5 kg  
Excepted quantities: E1  
Package - Instructions: P002, LP02  
Package - Provisions: PP12  
IBC - Instructions: IBC08  
IBC - Provisions: B3  
Tank instructions - IMO: -  
Tank instructions - UN: T1, BK2, BK2, BK3  
Tank instructions - Provisions: TP33  
Stowage and handling: Category A. SW23  
Properties and observations: -  
Marine pollutant: yes  
Segregation group: none

### Air transport (IATA)

Proper shipping name: UN 3077,  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(zinc oxide)  
Hazard label: Miscellaneous & Environmentally hazardous  
Excepted Quantity Code: E1  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G  
Passenger and Cargo Aircraft: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg  
Cargo Aircraft only: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg  
Special Provisions: A97 A158 A179 A197 A215  
Emergency Response Guide-Code (ERG): 9L

### Further information

Protect from frost.

## 15 Regulatory information

### National regulations - Canada

Zinc oxide: DSL: listed  
Diphenylamine: DSL: listed

### Further regulations, limitations and legal requirements

No data available

## 16 Other information

Revision date: 1/1/2026  
Date of first version: 17/8/2016  
Reason of change: Changes in section 14: IATA-DGR 2026



### Abbreviations and acronyms:

Acute Toxicity: Acute toxicity  
Aquatic toxicity - acute: Hazardous to the aquatic environment - acute  
Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
AS/NZS: Australian Standards/New Zealand Standards  
ATEmix: Acute Toxicity Estimate of mixture  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
DSL: Domestic Substances List  
EC: European Community  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
IMO: International Maritime Organization  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
M-factor: Multiplication factor  
OEL: Occupational Exposure Limit Value  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
STOT RE: Specific target organ toxicity - repeated exposure  
TDG: Transportation of Dangerous Goods Regulation in Canada  
TLV: Threshold Limit Value  
TRGS: Technical Rules for Hazardous Substances  
UN: United Nations  
vPvB: Very persistent and very bioaccumulative  
WEL: Workplace Exposure Limit

### Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.