Create Date:	02.12.2015	
Revised Date :	28.12.2020	
Valid from:	01.03.2019	
Version:	1.04	Replaces Version: 1.03

# 1. Identification of the substance or mixture and of the company

## **1.1 Productidentificator**

Trade Name: Thermal Grizzly Conductonaut

Other Description: Wärmeleitpaste Conductonaut / Thermal Grease Conductonaut / Conductonaut

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

Relevant identified uses: Thermal compound application

**1.3 Details of the supplier of the safety data sheet Supplier:** Thermal Grizzly Holding GmbH

Street / PO Box

Ostlandstraße 2 - 6

Country code. / ZIP / City GERMANY / 59558 / Lippstadt

#### **Contact for technical information** support@thermal-grizzly.com

Phone / Fax / E-Mail +49 (0)40 532 788-50 / +49 (0)321 211 347-93 / E-Mail: support@thermal-grizzly.com

**1.4 Emergency number** +49 (0)40 532 788-50

# 2. Possible dangers

2.1 Classification (EC) No. 1272/2008 No harmful product according (EC) No. 1272/2008

#### Additional hazard information for humans and environment:

If the normal rules of industrial hygiene are observed, no significant risk is posed by handling this product. The product does not contain any fire or explosion risk.

# 2.2 Label elements

## Label elements according to Regulation (EC) No. 1272/2008

**GHS Classification (29 CFR 1910.1200)**: Corrosive to metals, category 1. **Pictogram / Symbol:** slightly corrosive substance



Signal Word: Warning Hazard Statements: H290: May be corrosive to metals. Precautionary statements: P102: Keep out of the reach of children. P234: Keep only in original container, P390 Absorb spillage to prevent material damage P262: Do not get in eyes, on skin, or on clothing. P280: Wear protective gloves/protective clothing/eye protection/face protection. P302: Avoid contact with skin (may cause skin irritation) P305+P351+P338: Remove contact lenses if present and easy to do. Rinse cautiously with water for several minutes. P406: Store in non-corrosive, non-metallic containers

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# 2.3 Other hazards

Physical and chemical hazards see Chapter 10

# 3. Composition / information on ingredients

Main component of the substance **Name of substance: gallium** EC no.: CAS no.: 7440-55-3 EINECS no.: 231-163-8

#### Name of substance: indium

EC no.: CAS no.: 7440-74-6 REACH EINECS no.: 231-180

#### Name of substance: tin

EC no.: CAS no.: 7440-31-5 REACH EINECS no.: 231-141-8

# 4. First-aid measures

**General information:** Remove patient from area of exposure.

**Inhalation:** Remove to fresh air, keep warm and quiet, give oxygen if breathing is difficult. Seek immediate medical attention.

**Skin contact:** remove contaminated clothing, brush material off skin, wash affected area with soap and water. Seek medical attention if irritation develops or persists.

**Eye contact:** Flush eyes with lukewarm water, including under upper and lower eyelids, for at least 15 minutes. Seek medical attention if irritation develops or persists.

**Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person

Information for the doctor: We are not aware of any special treatment required. Treat the symptoms.

# 5. Fire-fighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** The product is not flammable. **Unsuitable extinguishing media: Water-**Spray is not suitable for the overheated substance.

**5.1 Special risks posed by the substance or the preparation itself, its combustion products or gases emitted:** If gases/oxides form, use protective equipment/breathing apparatus.

**5.2 Special protective equipment when fighting fires:** Wear breathing apparatus that does not depend on ambient air supply.

5.3 Additional information: None

### 6. Accidental release measures

6.1 Personal precautionary measures: Slip hazard by run out or buried product.

**6.2 Environmental protection measures:** Take up the run out product. Supply the product remainders for disposal.

**6.3 Cleaning methods:** Large quantities are absorbed (syringe) or up-turned. Remove any product residues by soap solution.

#### 6.4 Additional references: none

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# 7. <u>Handling and storage</u>

# 7.1 Precautions for safe handling

Accord with the putting and clicking of standard management of the storage. Avoid spillage. Prevent any unnecessary contact with other chemicals. Handling unpacked Conductonaut may alter its quality and degree of purity. Thermal Grizzly accepts no liability for changes or product quality resulting from processing the substance.

# 7.2 Conditions for safe storage, including any incompatibilities

Avoid High Temperature at place of storage. Not in glass containers, as with solidifying the liquid has an enlargement of the volume of around approx. 0,3%, which may cause an inner pressure within the glass. Plastics (PE, PP) are well suitable as container material.

#### Information on storage conditions

Do not store with oxidising or acidic substances

# 8. Limiting and monitoring exposure / personal protective equipment

#### 8.1 Control parameters: none

#### 8.2 Monitoring exposure / personal protective equipment

# Workplace limits in Germany: Ingredients with workplace-specific limits to be controlled: not applicable Personal protection:

**Respiratory protection:** P3 respiratory protection in an emergency producing oxide fumes. **Hand protection:** In case of repeated and continuous contact with skin, wear gloves of nitrile rubber. Use lipid-balancing cream, if required.

**Eye protection:** Wear safety goggles in case of possible eye contact through splashing.

Body protection: Wear suitable work clothing in case of splashing risk or other possible body contact

Information for work hygiene: Wash hands after work and before breaks. Industrial hygiene

# 9. Physical and Chemical Properties

# 9.1 Information on basic physical and chemical properties

Appearance	
- Physical state:	Liquid Metal Alloy
- Colour:	Silver
odor:	odorless
Odor threshold:	not applicable
pH:	not applicable
Melting point / freezing point:	>8 °C
Initial boiling point and boiling range:	>1300 °C
Flash point:	not determined
Evaporation rate:	Not determined
Flammability (solid, gaseous):	not determined
Upper / lower flammability or explosive limits:	not applicable
Vapor pressure:	< 10(-8) torr at 500 °C.
Vapor density:	Not determined
relative density:	
Solubility (ies):	not applicable
Partition coefficient:	not applicable
n-octanol / water:	not determined
Auto-ignition temperature:	not applicable
Decomposition temperature:	not determined
Viscosity:	0,0021 Pas
Explosive properties:	not applicable
Oxidising properties:	not applicable

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### 9.2 other Information

None

## 10. Stability and reactivity

**10.1 Reactivity:** The product amalgamates with metals on the surface like copper, tin, lead, zinc, gold and silver jewellery, particularly also with light metals on the surface, especially if these are free of oxides. If necessary, the product has to be tested for reactions to materials and chemical substances for a specific application.

10.2 Chemical Stability: Stable under ambient conditions. Product is stable: hazardous polymerization will not occur

10.3 Dangerous Reacitivity: None, If used according to regulations.

10.4 Conditions to be avoided: With aluminum and with following addition of water exothermically.

10.5 Substances to be avoided: Halogeneous one, hydrogen peroxide/hydrogen chloride, chlorine, bromine, aluminum

10.6 Hazardous decomposition products: None if substance is used properly.

# 11. Toxicological information

#### 11.1 Acute toxicity:

The metal alloy has not been tested, the single components of the alloy are below the limits of acute toxicity even if a full resorption is assumed.

#### 11.2 Effects at humans:

So far as the generally applicable regulations of industrial hygiene were adhered to, any harmful effect on the health has not become known.

After swallowing: Leaves the body on natural way. After skin contact: With frequent skin contact skin defatting is possible. After inhalation: Due to the very low steam pressure not applicably. After eye contact: Splashes in the eyes may cause irritations.

# 12. Ecological information

**12.1 Ecological toxicity:** The product is not miscible with water and shows a tendency toward sedimentation. Quantitative data for the ecological effect of this product are not present.

#### 12.2 Overall evaluation:

In the case of appropriate handling and use no ecological problems are to be expected.

# 13. Disposal

The industry that retrieves raw materials person of silicon retrieves the waste material , there are regular recovery prices.

#### 13.1 Disposal:

Intended use or recycling is to be preferred to the disposal. The product should be disposed according to the locally valid laws on waste disposal and (the competent authorities are responsible to give the necessary information).

#### 13.2 Additional references:

Cleaning agent: diluted, warmed up hydrochloric acid. Soap/water solution for surfaces.

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# **14.** <u>Transport information</u>UN Number:UN2803

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UN Proper Shipping Name:	Gallium
Transport Hazard Class:	8
Packing Group:	III

Marine Pollutant: No

Special Precautions: Corrosive to metals, especially aluminum and aluminum alloys. **Additional references:** The transportation regulations are quoted after the international adjustments and in the form, how they are used in Germany. Possible **discrepancies** in other countries are not considered.

# 15. Legislation

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

#### EU legislation as

Regulation (EC) No 2037/2000 (substances that deplete the ozone layer): Not applicable Regulation (EC) No 850/2004 (Persistent Organic Pollutants): Not applicable Regulation (EC) No 689/2008 (export and import of dangerous chemicals).: Not applicable Regulation (EC) No 648/2004 (the Detergents).: Not applicable Restrictions under Title VIII of Regulation (EC) 1907/2006: Not applicable National regulations as Solvent Ordinance (31 BlmSchV) : Not applicable Water hazard class : not dangerous for water (self-assessment)

# 15.2 Chemical Safety Assessment

Not applicable

# 16. Other Information

This information is based on present level of our knowledge, however, offers no assurance of product properties and establishes no contract legal rights.