

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trading name: Galinstan  
Revised on: 23 Sept. 2009

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## 01. Identification of the substance or the preparation and the company

**Identification of the substance or preparation:** Galinstan

### Other identification

**REACH registration no.:** tin 05-2114306920-58-0000, indium 05-2114306912-55-0000, gallium 05-2114306905-50-0000 (Pre-registration no.)

**Use of the substance / preparation:** as thermometer filling, Hg substitute, lubricant, reflection agent, electroconductive medium

**Manufacturer/supplier:** Geratherm MEDICAL AG

**Street/POB:** Fahrenheitstr. 1

**Country/ZIP codes/town:** D-98716 Geschwenda

**Contact for technical information:** Ms Alt

**Telephone:** 036205/98230

**Fax:** 036205/98115

**E-mail:** m.alt@geratherm.com

**Emergency information:** poison emergency no. in Erfurt, tel. 0361/ 730 730

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## 02. Hazard identification

**Hazard information:** n/a

**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.

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## 03. Composition/details on ingredients

**Chemical characteristics:** preparation made of gallium, indium and tin

Name of substance: gallium

EC no.: CAS no.: 7440-55-3

EINECS no.: 231-163-8

REACH registration no.: 05-2114306905-50-0000  
(Pre-registration no.)

Name of substance: indium

EC no.: CAS no.: 7440-74-6

EINECS no.: 231-180

REACH registration no.: 05-2114306912-55-0000

Name of substance: tin

EC no.: CAS no.: 7440-31-5

EINECS no.: 231-141-8

REACH registration no.: 05-2114306920-58-0000

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## 04. First aid measures

**General information:** No general information is necessary.

**Inhalation:** No exposure by inhalation possible.

**Skin contact:** Wash off with soap and water.

**Eye contact:** Rinse with lukewarm water with the edge of the eyelid open; consult an ophthalmologist, if necessary.

**Ingestion:** Keep calm, go to doctor and present this data sheet.

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

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## 05. Fire-fighting measures

**Suitable extinguishing media:** The product is not flammable.

**Unsuitable extinguishing media:** Spray is not suitable for the overheated substance.

**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.

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

**Additional information:** None

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## 06. Measures in case of accidental release

**Personal precautions:** Beware of possible risk of slipping caused by product leaking or spilling.

**Environmental precautions:** Do not allow the material to get into wastewater. Does not pose a threat to water supplies (self-assessment).

**Methods for cleaning up:** Suck up (gun) or sweep up large amounts and feed them into plastic containers (not aluminium receptacles) for recycling. Remove product remains using a soapy solution. Prevent dust formation.

**Additional information**

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## 07. Handling and storage

**Safe handling:** Avoid spillage. Prevent any unnecessary contact with other chemicals. Handling unpacked Galinstan may alter its quality and degree of purity. Geratherm accepts no liability for changes or product quality resulting from processing the substance.

**Information on fire and explosion protection:** No special measures required.

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## Other information

**Storage information:** Do not store with oxidising or acidic substances.

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## 08. Exposure controls / personal protection

### Limits for exposure at workplace and/or biological thresholds

**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

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## 09. Physical and chemical properties

### Appearance

**Aggregate state:** liquid

**Colour:** silver

**Odour:** odourless

### Safety data

**Risk of explosion:** none

**Lower explosion limit:**

**Upper explosion limit:**

**Vapour pressure:** < 10<sup>(-8)</sup> torr

**Density:** 6.44 g/cc.

**Discharge time:** not applicable

**Water solubility:** insoluble

**pH:** n/a

**Boiling point/range:** > 1300 °C

**Flash point:** n/a

**Ignition temperature:** n/a

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## 10. Stability and reactivity

**Conditions to avoid:** Exothermic with aluminium and when water is added subsequently!

**Materials to avoid:** Halogens, hydrogen peroxide/hydrogen chloride, chlorine, bromine, aluminium. Dangerous reactions with strong acids or oxidation agents

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

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**Other information:** 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.

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## 11. Toxicological information

### Toxicological tests

#### Experience from practice – effects on people

No adverse effects if used properly and if general work hygiene is observed.

#### Information on ingredients:

Estimation based on the raw materials: Due to the available data on the toxicity of the individual components and the intended use according to our experience and the information available the product does not pose any threat to human health.

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## 12. Ecological information

**Ecotoxicity:** We do not have any quantitative information on the ecological effects of the product.

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## 13. Information on disposal

**Recommendation:** Intended use or recycling are to be given preference to disposal. Disposal according to the applicable local legislation on waste disposal (authorities obligation to give information)

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## 14. Transport information

### Overland transport (ADR/RID/GGVSE):

Class: 8

Hazard label: 8 UN no.: UN 2803 Packaging group: III

### Sea transport (IMDG code/GGVSee):

Class: 8 UN no.: 2803 Packaging group: III

Marine Pollutant: no marine pollutant

### Air transport (ICAO-IATA/DGR):

Class: 8 UN no.: 2803 Packaging group: III

UN "Model Regulation": UN 2803; GALLIUM; 8; III

### Other information:

The transport rules are quoted here according to international regulations and in the form that they are used in Germany. Possible discrepancies in other countries have not been considered.

## 15. Regulatory information

**Material safety assessment:** The normal precautions for dealing with chemicals should be observed.

**Labelling according to EC Directive 67/548/EEC or Directive 1999/45/EC:**

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The alloy is not a hazardous working material in the meaning of this Directive.

## National regulations

### Water hazard class

Class: not dangerous for water (self-assessment)

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## 16. Other information

The information is based on the present state of our knowledge and is to describe the product with reference to the safety measures that must be taken. This information does promise any properties of the product described.

**Department issuing the data sheet:** Laboratory, Ms Alt

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