Safety Data Sheet

according to 29 CFR 1910.1200(g)

Alphacool Eisfrost Xtreme liquid metall paste

1. Identification

Product identifier

Alphacool Eisfrost Xtreme liquid metall paste

Product group: Mixtures

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Heat transferring agent

Details of the supplier of the safety data sheet

Company name:	Alphacool International GmbH Tochtergesellschaft		
Street:	Marienberger Str. 1		
Place:	D-38122 Braunschweig		
Telephone:	+49 (0) 531 28874 - 0	Telefax:	+49 (0) 531 28874 - 22
E-mail:	info@alphacool.com		
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Internet:	www.alphacool.com		
Responsible Department:	Forschung & Entwicklung		

Emergency phone number: +49 (0) 6131 19240

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Corrosive to metals: Met. Corr. 1
Skin corrosion/irritation: Skin Irrit. 2

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:



Hazard statements

May be corrosive to metals
Causes skin irritation

Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.
Store away from other materials.
If on skin: Gently wash with plenty of soap and water.

Hazards not otherwise classified

Es liegen keine zusätzlichen Angaben vor.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
7440-31-5	Tin	99 %
7440-55-3	Gallium	0.5 %
7440-74-6	indium	0.5 %

4. First-aid measures

Description of first aid measures

General information

No special measures are necessary.

After inhalation

Provide fresh air. No special measures are necessary.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink 1 glass of of water. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

When in doubt or if symptoms are observed, get medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. non-combustible liquids that cannot be assigned to any of the above storage classes

Unsuitable extinguishing media

Water spray

Specific hazards arising from the chemical

Non-flammable. Vapors may form explosive mixtures with air. In case of insufficient ventilation, wear suitable respiratory equipment.

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Personal protection equipment (PPE): see section 8

Environmental precautions

Do not allow to enter into surface water or drains.
non-hazardous to water

Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Collect spillage.

Reference to other sections

Safe handling: see section 7
Personal protection equipment (PPE): see section 8
Disposal: see section 13 Disposal: see section 13
Safe handling: see section 7

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Advice on protection against fire and explosion

Ensure adequate ventilation of the storage area.

Further information on handling

Handle and open container with care.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Further information on storage conditions

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Do not store together with: Oxidizing substances

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

Exposure controls

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye/face protection. Eye/face protection

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Hand protection is not required.

Skin protection

Use of protective clothing. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Respiratory protection

In case of inadequate ventilation wear respiratory protection. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Environmental exposure controls

See section 7. No additional measures necessary.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	silver
Odor:	odorless
Odour threshold:	not determined

pH-Value (at 0 °C):	not determined

Changes in the physical state

Melting point/freezing point:	-19 °C
Boiling point or initial boiling point and boiling range:	>1300 °C
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
:	not determined
Flash point:	No data available
Sustaining combustion:	No data available

Flammability

Solid/liquid:	not applicable not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

The product is not: oxidising.

Vapor pressure:	not determined
Vapor pressure:	not determined
Density:	6,44 g/cm³
Bulk density:	not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	No data available
Relative vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined

Other information

Solid content:	flüssig

10. Stability and reactivity

Reactivity

This material is considered to be non-reactive under normal use conditions.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

The product develops hydrogen in an aqueous solution in contact with metals.

Conditions to avoid

Aluminium

Incompatible materials

Chlorine (Cl2), Bromine, Aluminium, Hydrogen peroxide, strong,Acids

Hazardous decomposition products

No known hazardous decomposition products.

Further information

Das Produkt legiert oberflächlich Metalle, wie Kupfer, Zinn, Blei, Zink, Goldund Silberschmuck, insbesondere auch Leichtmetalle, werden oberflächlich legiert, vor allem wenn diese frei von Oxiden sind. Gegebenenfalls ist das Produkt im konkreten Anwendungsfall auf Reaktionen mit Materialien und chemischen Stoffen zu prüfen.

11. Toxicological information

Information on toxicological effects

Acute toxicity

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
7440-55-3	Gallium				
	oral	ATE 500 mg/kg			
7440-74-6	indium				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

Further information

Das Produkt wurde nicht geprüft. Die Aussage ist von den Eigenschaften der Einzelkomponenten abgeleitet. Die Einstufung wurde nach dem Berechnungsverfahren der CLP-Verordnung (EG) Nr. 1272/2008 vorgenommen.

12. Ecological information

Ecotoxicity

The substance/mixture does not fullfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

There are no data available on the mixture itself.

Mobility in soil

There are no data available on the mixture itself.

Other adverse effects

There are no data available on the mixture itself.

Further information

Avoid release to the environment.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains.

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled. Wasser.

14. Transport information

Marine transport (IMDG)

UN number:	UN 2803
UN proper shipping name:	GALLIUM
Transport hazard class(es):	8
Packing group:	III
Hazard label:	8



Special Provisions:	-
Limited quantity:	5 kg
Excepted quantity:	E0
EmS:	F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

UN number:	UN 2803
UN proper shipping name:	GALLIUM
Transport hazard class(es):	8
Packing group:	III
Hazard label:	8



Special Provisions:	A69 A804
Limited quantity Passenger:	Forbidden
Passenger LQ:	Forbidden
Excepted quantity:	E0
IATA-packing instructions - Passenger:	867
IATA-max. quantity - Passenger:	20 kg
IATA-packing instructions - Cargo:	867
IATA-max. quantity - Cargo:	20 kg

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

Warning: strongly corrosive. No dangerous good in sense of this transport regulation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No dangerous good in sense of this transport regulation.

15. Regulatory information

U.S. Regulations

National Inventory TSCA

U.S. Regulations

United States TSCA Inventory (TSCA)

The ingredients of this product are listed on the TSCA inventory or are exempt

National regulatory information

SARA Section 311/312 Hazards:

Gallium (7440-55-3): Immediate (acute) health hazard

indium (7440-74-6): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Changes

Revision date:	04/15/2024
Revision No:	2.1

This data sheet contains changes from the previous version in section(s): 9.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

Other data

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)