

**Alphacool Apex Wärmeleitpaste**

Revision date: 15.04.2024

Product code: 153

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

**1.1. Product identifier**

Alphacool Apex Wärmeleitpaste

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

**Use of the substance/mixture**

Heat transferring agent

**1.3. 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

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Telephone: 0531 28874-0

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Internet: www.alphacool.com

Responsible Department: Forschung & Entwicklung

**1.4. Emergency telephone number:**

+49 (0) 6131 19240

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**GB CLP Regulation**

Aquatic Acute 1; H400

Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**GB CLP Regulation**

**Pictograms:**



**Hazard statements**

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P351 Rinse cautiously with water for several minutes.

P350 Gently wash with plenty of soap and water.

P370+P378 In case of fire: In case of fire and/or explosion do not breathe fumes.

P262 Do not get in eyes, on skin, or on clothing.

**Labelling of packages where the contents do not exceed 125 ml**

**Pictograms:**



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**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Relevant ingredients**

| CAS No    | Chemical name                                 |              |          | Quantity  |
|-----------|-----------------------------------------------|--------------|----------|-----------|
|           | EC No                                         | Index No     | REACH No |           |
|           | Classification (GB CLP Regulation)            |              |          |           |
| 7429-90-5 | aluminium powder (stabilised)                 |              |          | 55% ~ 85% |
|           | 231-072-3                                     | 013-002-00-1 |          |           |
|           | Flam. Sol. 1, Water-react. 2; H228 H261       |              |          |           |
| 1314-13-2 | zinc oxide                                    |              |          | 10% ~ 30% |
|           | 215-222-5                                     | 030-013-00-7 |          |           |
|           | Aquatic Acute 1, Aquatic Chronic 1; H400 H410 |              |          |           |
| Unknown   | Liquid polymer                                |              |          | 5% ~ 15%  |
|           |                                               |              |          |           |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No    | EC No                                    | Chemical name | Quantity  |
|-----------|------------------------------------------|---------------|-----------|
|           | Specific Conc. Limits, M-factors and ATE |               |           |
| 1314-13-2 | 215-222-5                                | zinc oxide    | 10% ~ 30% |
|           | oral: LD50 = > 5000 mg/kg                |               |           |

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

Never give anything by mouth to an unconscious person or a person with cramps.

**4.2. Most important symptoms and effects, both acute and delayed**

No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

In case of fire:

Dry extinguishing powder,

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Water spray,  
Foam

**5.2. Special hazards arising from the substance or mixture**

none

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

In case of fire:

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Wear a self-contained breathing apparatus and chemical protective clothing.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**General advice**

Use personal protection equipment.

Avoid contact with eyes and skin.

Avoid breathing dust/fume/gas/mist/vapours/spray.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

**For cleaning up**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal. Collect in closed and suitable containers for disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Provide adequate ventilation.

Avoid: Eye contact

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

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

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed.

Recommended storage temperature : 5°C

**Hints on joint storage**

No special measures are necessary.

**7.3. Specific end use(s)**

Heat transferring agent

**SECTION 8: Exposure controls/personal protection**

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**8.1. Control parameters**

**Exposure limits (EH40)**

| CAS No    | Substance                        | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|-----------|----------------------------------|-----|-------------------|-----------|-----------|--------|
| 7429-90-5 | Aluminium metal, respirable dust | -   | 4                 |           | TWA (8 h) | WEL    |

**8.2. Exposure controls**

**Appropriate engineering controls**

Protect from direct sunlight.

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

**Eye/face protection**

No special measures are necessary.

**Hand protection**

No special measures are necessary.

**Skin protection**

No special measures are necessary.

**Respiratory protection**

No special measures are necessary.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

|                                                           |                                                                                                  |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Physical state:                                           | Paste                                                                                            |
| Colour:                                                   | grey                                                                                             |
| Odour:                                                    | odourless                                                                                        |
| Odour threshold:                                          | not determined                                                                                   |
| Melting point/freezing point:                             | not determined                                                                                   |
| Boiling point or initial boiling point and boiling range: | >200 °C                                                                                          |
| Flammability:                                             | not determined                                                                                   |
| Lower explosion limits:                                   | not applicable                                                                                   |
| Upper explosion limits:                                   | not determined                                                                                   |
| Flash point:                                              | not applicable                                                                                   |
| Auto-ignition temperature:                                | not determined                                                                                   |
| Decomposition temperature:                                | not determined                                                                                   |
| pH-Value:                                                 | 5-7                                                                                              |
| Viscosity / kinematic:                                    | 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                                                                                   |
| Dissolution rate:                                         | not determined                                                                                   |
| Partition coefficient n-octanol/water:                    | not determined                                                                                   |
| Dispersion stability:                                     | not determined                                                                                   |
| Vapour pressure:                                          | not determined                                                                                   |
| Vapour pressure:                                          | not determined                                                                                   |
| Density:                                                  | 3,48 g/cm <sup>3</sup>                                                                           |
| Relative density:                                         | not determined                                                                                   |
| Bulk density:                                             | not determined                                                                                   |
| Relative vapour density:                                  | not determined                                                                                   |

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Particle characteristics:

not determined

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not determined

Gas:

not determined

Oxidizing properties

The product is not: oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

Solid content:

not determined

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

Viscosity / dynamic:

not determined

Flow time:

not determined

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

Strong acid, Strong alkali

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in GB CLP Regulation**

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

**Acute toxicity**

| CAS No    | Chemical name  |               |         |        |        |
|-----------|----------------|---------------|---------|--------|--------|
|           | Exposure route | Dose          | Species | Source | Method |
| 1314-13-2 | zinc oxide     |               |         |        |        |
|           | oral           | LD50<br>mg/kg | > 5000  | Rat    | IUCLID |

## Safety Data Sheet

according to UK REACH Regulation

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#### SECTION 12: Ecological information

##### 12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

##### 12.2. Persistence and degradability

The study does not need to be conducted because the substance is known to be insoluble in water.

##### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

##### 12.4. Mobility in soil

solid.

The study does not need to be conducted because the substance is known to be insoluble in water.

##### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

##### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

##### 12.7. Other adverse effects

No information available.

##### **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

#### SECTION 13: Disposal considerations

##### 13.1. Waste treatment methods

###### **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Recycle according to official regulations.

###### **Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

#### SECTION 14: Transport information

##### **Land transport (ADR/RID)**

###### 14.1. UN number or ID number:

No dangerous good in sense of this transport regulation.

###### 14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

###### 14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

###### 14.4. Packing group:

No dangerous good in sense of this transport regulation.

##### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

##### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

#### SECTION 15: Regulatory information

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

###### **EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 40

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Information according to Directive  
2012/18/EU (SEVESO III):

E1 Hazardous to the Aquatic Environment

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

3 - highly hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**Abbreviations and acronyms**

Water-react: Substances and mixtures which in contact with water emit flammable gases

Flam. Sol: Flammable solids

Aquatic Acute: Acute aquatic hazard

Aquatic Chronic: Chronic aquatic hazard

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

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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Relevant H and EUH statements (number and full text)**

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**Further Information**

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

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for adhering to existing laws and regulations.

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