

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 7/12/2021 Supersedes: 1/8/2016 Version: 1.2

SECTION 1: Identification

1.1. Identification

Product form : Article
Product name : GRADE 1200

Type of product : Microporous high temperature insulation,

Grade family: 1200 and related products.

Valid for: MICROTHERM® PANEL-1200, MICROTHERM® (SEMI-)OVERSTITCHED-1200, MICROTHERM® (SEMI-)QUILTED-1200, PROMALIGHT®-1200, PROMALIGHT® MACHINED

PARTS-1200, STEELFLEX®-1200

1.2. Recommended use and restrictions on use

Use of the substance/mixture : High temperature insulation.

1.3. Supplier

Supplier

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Other

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1.4. Emergency telephone number

Emergency number

: Please contact a regional poison center or emergency telephone number.

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification

: Can occur: eye irritation, irritation of mucous membranes and skin irritation. Some raw materials may contain traces of natural occuring quartz.

During machining the product (drilling, cutting, sanding, etc.), airborne dust can be released. As with most types of nuisance dust, excessive inhalation of dust may cause irritation of the bronchial tubes. The inhalation of quartz containing dust, in particular the fine dust fraction(respirable size), in high concentrations or over repeated or prolonged periods of time can be hazardous to health and may lead to chronic lung disease and an increased risk of lung cancer. This risk will be minimal if correct working practices are observed and applied. (Refer to Section 8). According to the International Agency for Research on Cancer (IARC Monograph Volume 100C - 2012) "Crystalline silica inhaled in the form of quartz or cristobalite is carcinogenic to humans(Group 1)."

Some products of this GRADE family are supplied encapsulated in covering materials, such as woven glass cloth, non-woven polyester cloth, PE foil, aluminium foil and mica sheet. Some fibres, glass threads, covering materials or adhesives may be used that contain some organic fraction which may decompose upon first heating.

2.4. Unknown acute toxicity (GHS US)

Not established.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not established.

3.2. Mixtures

Not established.

3.3. Article

Components : Aluminium oxide, zircon, aluminium oxide fibre

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SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Seek medical attention if ill effect or irritation develops.

First-aid measures after inhalation : Remove to fresh air and drink water. Seek medical attention if irritation or symptoms persist.

First-aid measures after skin contact : Rinse affected areas with water, taking care not to scratch or rub. Seek medical attention if

irritation or symptoms persist.

First-aid measures after eye contact : Do not rub the eye. Rinse immediately with plenty of water. If eye irritation persists: Get medical

advice/attention.

First-aid measures after ingestion : Ingestion unlikely due to product form. Do not induce vomiting. Rinse mouth. Drink plenty of

water. Call a POISON CENTER/doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause irritation to the respiratory tract and to other mucous membranes.

Symptoms/effects after skin contact : May cause temporary irritation/skin rash. Repeated exposure may cause skin dryness or

cracking.

Symptoms/effects after eye contact : May cause temporary eye irritation.

Symptoms/effects after ingestion : None known.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : All extinguishing media can be used

5.2. Specific hazards arising from the chemical

Explosion hazard : Product is not explosive.

Reactivity in case of fire : The product is non-combustible.

Covering: can be organic or contain organic components which can decompose when heated to

temperatures greater than 150°C, emitting toxic gases.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Minimise generation of dust. Avoid breathing dusts. Avoid eye and skin contact. Dampen down

any dust or use vacuum cleaner with correct filter.

6.1.1. For non-emergency personnel

Measures in case of dust release : Use recommended respiratory protection. Prevent spread of dust. Dampen down any dust or use

vacuum cleaner with correct filter.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Prevent spread of dust.

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6.3. Methods and material for containment and cleaning up

For containment : Use closed containers to avoid dust release.

Methods for cleaning up : Shovel up small pieces. Dampen down any dust before putting into appropriate skips.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handling of products of this GRADE family, especially in an encapsulated form, is unlikely to

generate significant quantities of airborne dust.

Dust, generated during machining and processing must be exhausted and the regulatory occupational exposure limits (workplace exposure limits in UK) must be respected.

Precautions for safe handling : Work in a well ventilated area. Use tools with appropriate dust exhaust equipment. Use always

respiratory protective equipment when exposures are likely or can be foreseen to exceed the Occupational Exposure Limits or Workplace Exposure Limits in UK (refer to local regulations).

Collect dust with a vacuum cleaner or soak with water before sweeping up.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, covered and frost proof area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information : It is recommended that airborne fibre level is kept below 0.5 fibre/ml. (TWA - Average of 8

working hours)

8.2. Appropriate engineering controls

Environmental exposure controls : Avoid release to the environment

8.3. Individual protection measures/Personal protective equipment

Eye protection:

Avoid contact with eyes. Use safety glasses whenever tools are used and dusts are produced.

Skin and body protection:

Avoid contact with skin. Use working clothes and gloves to protect against mechanical injury and direct skin contact.

Respiratory protection:

Avoid breathing dusts. Use appropriate respiratory equipment when exposures are likely or can be foreseen to exceed the Occupational Exposure Limits or Workplace Exposure Limits for the UK (e.g. for exposures up to 10 times the OEL (WEL) use at least a P2 type dust mask. For higher exposure, use a P3 type mask).

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Colour : white
Odour : None

Odour threshold : No data available : No data available рΗ Melting point : No data available Freezing point : No data available Boiling point : No data available : No data available Flash point Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : No data available Vapour pressure No data available Relative vapour density at 20 °C : No data available · No data available Relative density Solubility : insoluble in water. Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic : No data available : No data available Viscosity, dynamic No data available Explosive limits No data available Explosive properties Oxidising properties No data available

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Do not use the product at temperatures in excess of the maximum recommended operating temperature.

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

Core insulation: thermally stable to the recommended maximum operating temperature.

Covering: can be organic or contain organic components which can decompose when heated to temperatures greater than 150°C, emitting toxic gases.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Aluminium oxide (1344-28-1)

LD50 oral rat ≥ 5000 mg/kg

Silane, dichlorodimethyl-, reaction products with silica (68611-44-9)

Skin corrosion/irritation Not classified Serious eye damage/irritation Not classified Respiratory or skin sensitisation Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity Not classified Not classified STOT-single exposure STOT-repeated exposure Not classified Aspiration hazard Not classified Viscosity, kinematic No data available

Symptoms/effects after inhalation : May cause irritation to the respiratory tract and to other mucous membranes.

> 5000 mg/kg

: May cause temporary irritation/skin rash. Repeated exposure may cause skin dryness or

cracking.

Symptoms/effects after eye contact

Symptoms/effects after skin contact

Symptoms/effects after ingestion

Other information

I D50 oral rat

May cause temporary eye irritation.

: None known.

One of the components of the article is zircon which can contain very low levels of naturally occurring radioactive elements of the uranium and thorium series. The main radiological hazard from the product is internal exposure from small amounts of alpha particles given off by inhaled dust. Overexposure by inhalation to inhaled dusts containing radioactive uranium or thorium may cause lung cancer. Industrial hygiene practices aimed at control of airborne dust will lessen the potential for exposure. Low level gamma radiation from stocks of the insulation may present a lesser, external hazard that can be managed by limiting close proximity for long time periods to large volumes of material. IARC and NTP do not list Zircon as a carcinogen. Radioactivity measurements performed in the Belgium production facility, dealing with large quantities of these materials resulted in very low radioactivity concentrations (at least a factor 100 lower than the yearly Belgian dose limit for occupationally exposed persons).

Polycrystalline wool (PCW) aluminium oxide fibres are used in this GRADE family:

- PCW are not classified as dangerous by regulation (EC) 1272/2008. PCW have not been assessed by the European Union and therefore are not specifically classified.
- IARC (1988) grouped polycrystalline fibres into a broad category of "ceramic fibres". Test data specific to polycrystalline fibres were negative, but positive results with the other fibre types led to the conclusion that all fibres in the group should be considered as possible human carcinogens (IARC Group 2B).
- In Germany, inorganic dust, unless classified elsewhere is classified in category 3 (TRGS905 2.3 section 6).

SECTION 12: Ecological information

12.1. Toxicity

No additional information available.

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12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

No additional information available.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Dispose of in accordance with relevant local regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not established.
Proper Shipping Name (TDG) : Not established.
Proper Shipping Name (IMDG) : Not established.
Proper Shipping Name (IATA) : Not established.

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not established.

TDG

Transport hazard class(es) (TDG) : Not established.

IMDG

Transport hazard class(es) (IMDG) : Not established.

IATA

Transport hazard class(es) (IATA) : Not established.

14.4. Packing group

Packing group (DOT) : Not established.
Packing group (TDG) : Not established.
Packing group (IMDG) : Not established.
Packing group (IATA) : Not established.

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not established.

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Aluminium oxide	1344-28-1			
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9			
POLYCRYSTALLINE WOOL (PCW)	675106-31-7			

15.2. International regulations

CANADA

No additional information available.

EU-Regulations

No additional information available.

National regulations

No additional information available.

15.3. US State regulations

No additional information available.

SECTION 16: Other information

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Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.