Ceramic fiber

2.3 Other hazards

Additional advice

May cause temporary mechanical irritation to exposed eyes, skin or respiratory tract. Minimize exposure to airborne dust..

SECTION 3: Composition/information on ingredients

3.1 Substances

Hazardous components

| Chemical Name | CAS-No. EC-No. | Concentration (%) |
|----------------------------|--------------------------|-------------------|
| Refractory Ceramic Fibres, | 142844-00-6 604-314-4 | >= 90 - <= 100 |

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Call a POISON CENTRE or doctor/physician if exposed or

you feel unwell.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : Move to fresh air.

Call a physician or poison control centre immediately.
If unconscious place in recovery position and seek medical

advice.

In case of skin contact : First aid is not normally required. However, handling of this

material may generate mild mechanical temporary skin irritation, it is recommended that exposed areas be cleaned by washing with soap and water, do not rub or scratch exposed

skin.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

If eye irritation persists, consult a specialist.

If swallowed : Obtain medical attention.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Signs and symptoms of exposure to this material through

breathing, swallowing, and/or passage of the material through

the skin may include:

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stomach or intestinal upset (nausea, vomiting, diarrhea)

irritation (nose, throat, airways)

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure. These effects are usually

temporary.

Risks : May cause cancer by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Skin and respiratory effects are the result of temporary, mild

mechanical irritation.

fiber exposure does not result in allergic manifestations.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Water spray Foam

Dry chemicals

Unsuitable extinguishing

media

: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

Packaging and surrounding materials may be combustible.
 Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion

products

: No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment

for firefighters

: In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing

methods

Further information

: Product is compatible with standard fire-fighting agents.

: Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Ensure adequate ventilation.

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Avoid dust formation. Avoid breathing dust.

Persons not wearing protective equipment should be excluded

from area of spill until clean-up has been completed.

Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Frequently clean the work area with vacuum or wet sweeping

to minimize the accumulation of debris.

Use a vacuum cleaner fitted with a high efficiency filter

(HEPA)

Do not use compressed air for clean-up. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : /

Avoid dust formation.

Provide sufficient air exchange and/or exhaust in work rooms. Where abnormally high dust concentrations occur, provide

workers with appropriate protective equipment.

Handling can be a source of dust emission and therefore the processes should be designed to limit the amount of handling. Whenever possible, handling should be carried out under controlled conditions (i.e. using dust exhaust system).

Do not breathe dust. Do not smoke.

Container hazardous when empty.

Avoid exposure - obtain special instructions before use. Smoking, eating and drinking should be prohibited in the

application area.

For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

Avoid dust formation. Take measures to prevent the build up of electrostatic charge. Provide appropriate exhaust ventilation

at places where dust is formed.

Hygiene measures : Avoid breathing dust. Wash hands before breaks and at the

end of workday. When using do not eat or drink. When using

do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Reduce dust emission during unpacking. Avoid damaging containers. Electrical

Ceramic fiber

installations / working materials must comply with the

technological safety standards.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : The main application of these products is as thermal

insulation. Use of the products is restricted to professional

users

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|----------------------------|-------------|-------------------------------|---------------------------------|----------|
| Refractory Ceramic Fibres, | 142844-00-6 | TWA | 5 mg/m3 2 fibre/ml | EH40 WEL |
| | | TWA (Fiber.) | 5 mg/m3 1 fibre/ml Fiber. | EH40 WEL |

8.2 Exposure controls

Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Eye protection : As necessary, wear goggles or safety glasses with side

shields.

Hand protection

Remarks : Wear personal protective equipment (e.g gloves), as

necessary to prevent skin irritation.

Skin and body protection : Wear as appropriate:

Safety shoes

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection In the case of dust or aerosol formation use respirator with an

approved filter.

When engineering and/or administrative controls are insufficien to maintain workplace concentrations below the regulatory OEL the use of appropriate respiratory protection, a certified

respirator with a filter efficiency of at least 95% should be used.

Dust safety masks are recommended when the dust

concentration is more than 10 mg/m3.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Solid, fiber

Color : White

Odour Threshold : Odourless

pH : No data available

Melting point/freezing point : 1840 °C

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : Insoluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

9.2 Other information

No data available

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SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid

Conditions to avoid : Please refer to handling and storage advice in Section 7

Keep away from heat, flame, sparks and other ignition

sources.

10.5 Incompatible materials

Materials to avoid : hydrofluoric acid

phosphoric acid strong alkalis

10.6 Hazardous decomposition products

Hazardous decomposition

products

 Upon heating above 900°C for sustained periods, this amorphous material begins to transform to mixtures of

crystalline phases.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of

exposure

: Inhalation Skin contact

Eye Contact Ingestion

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Components:

ALUMINOSILICATE FIBER (VITREOUS):

Result: Mild skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury., Product dust may be irritating to eyes, skin

Ceramic fiber

and respiratory system.

Components:

ALUMINOSILICATE FIBER (VITREOUS):

Result: Mild eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information. Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

May cause cancer by inhalation.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Bioaccumulation : Remarks: The substance has low potential for

bioaccumulation.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

Product:

Additional ecological

: No data available

information

Ceramic fiber

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : To prevent waste materials from becoming airborne during

waste storage, transportation and disposal, a covered

container or plastic bagging is recommended.

Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Empty containers should be taken to an approved waste

handling site for recycling or disposal. Do not re-use empty containers.

Such a waste is normally dusty (unless wetted) and so should

be properly bagged and clearly labeled for disposal.

Check for national and /or regional regulations to identify all

applicable disposal requirements.

SECTION 14: Transport information

International transport regulations

14.1 UN number

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 Proper shipping name

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class

ADR : Not regulated as a dangerous good RID : Not regulated as a dangerous good IMDG : Not regulated as a dangerous good IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good RID : Not regulated as a dangerous good IMDG : Not regulated as a dangerous good IATA : Not regulated as a dangerous good

14.5 Environmental hazards

ADR : Not regulated as a dangerous good RID : Not regulated as a dangerous good IMDG : Not regulated as a dangerous good

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14.6 Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

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

Pollution category : Not applicable
Ship type : Not applicable
Product name : Not applicable
Special precautions : Not applicable

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High : Refractory Ceramic Fibres

Concern for Authorisation (Article 57).

REACH - List of substances subject to authorisation : Not applicable

(Annex XIV)

REACH - Restrictions on the manufacture, placing on

the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

: Refractory Ceramic Fibres

: Not applicable

Regulation (EC) No 850/2004 on persistent organic

pollutants

The components of this product are reported in the following inventories:

TSCA : Not On TSCA Inventory

DSL On the inventory, or in compliance with the inventory

AUSTR Not in compliance with the inventory

ENCS Not in compliance with the inventory

KECL On the inventory, or in compliance with the inventory

PHIL Not in compliance with the inventory

IECSC On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

15.2 Chemical Safety Assessment

No data available

Ceramic fiber

SECTION 16: Other information

Further information

Revision Date: 2020-02-27

Full text of H-Statements referred to under sections 2 and 3.

H350i May cause cancer by inhalation.

Disclaimer:

This MSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by us to be dependable and is accurate to the best of our knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. We assumed no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Material Safety Data Sheet