SAFETY DATA SHEET

Revision date:2023/11/01

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : High purity alumina beads

Company name : Taimei Chemicals Co., Ltd.

Address : 3685-2, Minamiminowa-mura, Kamiina-gun, Nagano, Japan.

TEL : +81-265-72-4151 FAX : +81-265-74-5100

Sales office TEL : +81-3-3563-2491 FAX : +81-3-3563-2498

Recommended use and restrictions on use

: pulverization/dispersion media, special resin fillers

2. HAZARDS IDENTIFICATION

In the GHS classification it is as follows, but it is not Dangerous Goods.
However, please take safety measures.

GHS Classification [1)]

Health Hazards

Specific Target Organ Toxicity/Single exposure : Category 3

Specific Target Organ Toxicity/Repeated exposure : Category 1

※ Classification categories other than the above are "Not applicable" or "Classification not possible".

GHS Label elements

Pictograms or Symbols :

Signal word : Danger

Hazard statements : May cause respiratory irritation. (H335)
Causes damage to organs through prolonged or repeated exposure.(H372)

Precautionary statements

【Prevention】 : Do not eat, drink or smoke when using this. (P270)
Use only outdoors or in a well-ventilated area. (P271)
Do not breathe the dust. (P260)
Wash face and hands thoroughly after handling. (P264)
Wear protective gloves/dust mask/protective glasses.

【Response】 : If inhaled
; After rinsing the mouth, remove person to fresh air and keep comfortable for breathing. (P304+P340)
If you feel unwell, get medical advice/attention.(P314)

【Storage】 : Store in a well-ventilated place. Keep container tightly closed. (P403+P233)
Store locked up. (P405)

【Disposal】 : Dispose of contents/container in accordance with local/regional /national/international regulations. (P501)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Mixture : Chemical substance
Chemical name : Aluminum Oxide (Another name : Alumina)
Chemical formula : Al_2O_3
Concentration : More than 99% (as Al_2O_3)
CAS RN : 1344-28-1

4. FIRST-AID MEASURES

If inhaled : After rinsing the mouth, remove person to fresh air and keep comfortable for breathing.
If you feel unwell, get medical advice/attention.

If on skin : Wash with soap and plenty water.
If skin irritation occurs, get medical advice/attention.

If in eyes : Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists, get medical advice/attention.

If swallowed : After rinsing the mouth, drink water.
If you feel unwell, get medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
: Use any means suitable for extinguishing surrounding fire.

Unsuitable extinguishing media
: None

Specific hazards arising from the chemical
: None

Special protective actions for fire-fighters
: Firefighters should wear suitable protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
: Wear suitable protective equipment when handling leaks. (section 8).

Environmental precautions
: Prevented from flowing into the rivers.
Please contact when impact on humans and aquatic life is a concern.

Methods and materials for containment and cleaning up
: Sweep up spillage in an empty container that can be sealed.
Rinse the uncollectible portion with plenty of water.

Prevention of secondary disaster
: Please covered with a sheet for shatterproof.

7. HANDLING AND STORAGE

Handling

Technical measures : Wear suitable protective equipment (section 8).

Precautions for safe handling : Since dust is likely to be generated, local exhaust or general ventilation should be performed.
Handle gently so as not to generate dust, and do not inhale dust.

Hygiene measure : Wash face and hands thoroughly after handling.
Do not eat, drink or smoke when using this.

Storage

Conditions for safe storage : Store the container tightly closed and locked in a well-ventilated place.

Safe packaging materials : Use a sealable container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Limit value : Japan Society of Industrial Hygiene advisory value [2)]
; Applicable the first-class dust as alumina
Inhalation dust = 0.5 mg/m^3 ,Total dust = 2 mg/m^3

ACGIH advisory value [3)]
; As insoluble aluminium salts
TWA(Time Weighted Average) = 1 mg/m^3

Equipment measures : Install the following equipment as necessary.
(local exhaust ventilation, general ventilation, hand wash, eyewash equipment)

Protective equipment

Respiratory protection : Wear a general-type dust mask that has passed the model test.

Hand protection : Wear rubber gloves, etc.

Eye and face protection : Wear goggle-type protective glasses or a face shield.

Skin and body protection : Wear dust-proof clothing as necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Spherical particles

Color : White

Odor : None

Melting point /freezing point : 2000～2100 ℃

Boiling Point or initial boiling point and boiling range : About 3000 ℃

Flammability : Non flammable

Lower and upper explosion limit/flammability limit : No data

Flash point : No data

Auto-ignition temperature : No data

Decomposition temperature : No data

pH : No data

Kinematic viscosity : No data

Solubility : Insoluble in water
Insoluble in acid/alkali at normal pressure

Partition coefficient n-octanol/water (log value) : No data

Vapor pressure	: No data
Density and/or relative density	: 3.9
Relative vapor density	: No data
Particle characteristics	: Spherical fine particles

10. STABILITY AND REACTIVITY

Reactivity	: None
Chemical stability	: Chemically stable
Possibility of hazardous reactions	: None
Conditions to avoid	: Generation and diffusion of dust
Incompatible materials	: None
Hazardous decomposition products	: None

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	: LCLo = 357 mg/m^3 (mouse 60 days,inhalation) [4)] LD_{50} > 5,000 mg/kg (oral-rat) [1)]
Skin corrosion/irritation	: No data
Serious eye damage/irritation	: No data
Respiratory or skin sensitization	: No data
Germ cell mutagenicity	: No data
Carcinogenicity	: No data
Reproductive toxicity	: No data
Specific target organ toxicity (single exposure)	: There is a description of upper respiratory tract irritation (ICSC-2000) [1)]
Specific target organ toxicity (repeated exposure)	: There is a description that adenomyosis was observed in the lung (EHC-1997) [1)]
Aspiration hazard	: No data

12. ECOLOGICAL INFORMATION

Ecotoxicity	: No data
Persistence and degradability	: None
Bioaccumulative potential	: No data
Mobility in soil	: None
Harmfulness to the Ozone layer	: No data

13. DISPOSAL CONSIDERATIONS

Disposal methods : Avoid release to the environment.
When disposing, please follow all regulations in your country.

Contaminated containers and packaging
: After washing with water, should be disposed of in accordance with all regulations of your country.

14. TRANSPORT INFORMATION

UN Number : None
Transport hazard class : Not applicable
Packing group : Not applicable
IMDG code : Not applicable
IATA DGR／ICAO TI : Not applicable
Follow all regulations in your country.
Safety measures during transportation
: Be careful not to break the packaging bag, get wet with water, or collapse the load.
See Section 7. HANDLING AND STORAGE.

15. REGULATORY INFORMATION

After referring to this SDS, please managing this product to conforms against all regulations of your country or region.

16. OTHER INFORMATION

REFERENCES

- Japanese Industrial Standards Z 7253 (2019)

1) "GHS Classification Results" published by the National Institute of Technology and Evaluation of Japan.
2) Japanese Society of Industrial Hygiene "Advisory value for permissible concentrations, etc."(2022)
3) ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" (2018)
4) Internal documents

IMPORTANT NOTE:

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