

# Safety Data Sheet

## 1. Identification of the product and of the company

### [Product information]

Product name : TS-A  
 General name : Dust Control Agent  
 Recommended application : Dust Control Treatment for Calcium Silicate Boards  
 And restrictions of use: Avoid use other than that recommended

### [Corporate information]

Company name : Japan Insulation Co., Ltd  
 Address : 4064-1, Azakitanuma, Nodashinden, Mizuho city, Gifu prefecture  
 Section in charge : Quality Control Section, Manufacturing Division  
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 FAX : +81-58-326-8982

## 2. Hazards identification

GHS classification: Classification as mixture

|                  |                                                                            |                             |
|------------------|----------------------------------------------------------------------------|-----------------------------|
| Physical Hazards | Explosives                                                                 | Classification not possible |
|                  | Flammable gases                                                            | No classification           |
|                  | Aerosols                                                                   | Classification not possible |
|                  | Chemicals under pressure                                                   | Classification not possible |
|                  | Oxidizing gases                                                            | No classification           |
|                  | Gas under pressure                                                         | No classification           |
|                  | Flammable liquids                                                          | Classification not possible |
|                  | Flammable solids                                                           | No classification           |
|                  | Self-reactive substance and mixtures                                       | Classification not possible |
|                  | Pyrophoric liquids                                                         | Classification not possible |
|                  | Pyrophoric solids                                                          | No classification           |
|                  | Self-heating substances and mixtures                                       | Classification not possible |
|                  | Substances and mixtures which, in contact with water, emit flammable gases | Classification not possible |
|                  | Oxidizing liquids                                                          | Classification not possible |
|                  | Oxidizing solids                                                           | No classification           |
|                  | Organic peroxides                                                          | Classification not possible |
|                  | Corrosive to metals                                                        | Classification not possible |
|                  | Desensitize explosives                                                     | Classification not possible |
| Health Hazards   | Acute toxicity (oral)                                                      | No classification           |
|                  | Acute toxicity (dermal)                                                    | No classification           |
|                  | Acute toxicity (Inhalation: Gases)                                         | No classification           |
|                  | Acute toxicity (Inhalation: Vapors)                                        | No classification           |
|                  | Acute toxicity (Inhalation: Dusts)                                         | No classification           |
|                  | Acute toxicity (Inhalation: mists)                                         | No classification           |
|                  | Skin corrosion/irritation                                                  | No classification           |
|                  | Serious eye damage/eye irritation                                          | Category 1                  |
|                  | Respiratory sensitization                                                  | No classification           |
|                  | Skin sensitization                                                         | No classification           |
|                  | Germ cell mutagenicity                                                     | No classification           |
|                  | Carcinogenicity                                                            | No classification           |
|                  | Reproductive toxicity                                                      | No classification           |
|                  | Specific target organ toxicity (single exposure)                           | No classification           |
|                  | Specific target organ toxicity (repeated exposure)                         | No classification           |
|                  | Aspiration hazard                                                          | Classification not possible |

|                       |                                                         |                             |
|-----------------------|---------------------------------------------------------|-----------------------------|
| Environmental Hazards | Hazardous to the aquatic environment Short-term(acute)  | No classification           |
|                       | Hazardous to the aquatic environment Long-term(chronic) | No classification           |
|                       | Hazardous to the ozone layer                            | Classification not possible |

Note) The component, which information or knowledge for GHS classification is unavailable, is not included into evaluation or is classified into "Classification not possible".

GHS label elements:

< Pictograms >



< Signal words >

Danger

<Hazard statements >

Causes serious eye damage.

Precautionary statements:

< Safety measures >

Wear appropriate protective eyewear/face protection.

< Emergency measures >

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a physician.

< Storage/ Disposal >

Not applicable.

### 3. Composition/Information of ingredients

Substance/Mixture: Mixture(aqueous solution)

| Chemical name<br>or<br>General name | CAS No.    | Official Gazette<br>published docket number | Content<br>(%) |
|-------------------------------------|------------|---------------------------------------------|----------------|
| Lithium silicate                    | 12627-14-4 | 1-770                                       | 1-5            |
| Water                               | 7732-18-5  | —                                           | 95-99          |

Note) Information of the raw materials, which are main components, or considered to have risk hazard, are listed in above table.

This product does not fall under formaldehyde releasing building material, so it is out of notified material. Hence, this product does not contain substances regulated by the Building Code such as chlorpyrifos and formaldehyde because these substances are not used as raw materials or in the process.

Furthermore, the chemical substances which are mentioned below are not used similarly to the product.

Toluene, Xylene, Paradichlorobenzene, Ethylbenzene, Styrene, Di-n-butyl phthalate, Tetradecane, Di-2-ethylhexyl phthalate, Diazinon, Acetic aldehyde, Fenobucarb, Other volatile organic compounds.

### 4. First-aid measures

|               |                                                                                                                                                                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation:   | Move the person to fresh air and keep them at rest in a position comfortable for breathing.<br>Rinse the mouth thoroughly with water. Seek medical attention if necessary.                                                                                                                                       |
| Skin contact: | Remove contaminated clothing and shoes immediately.<br>Because the product is alkaline, rinse the affected area with lukewarm water or water while avoiding the use of soap, and continue washing until skin irritation or slippery feeling disappears.<br>If any skin abnormalities occur, seek medical advice. |
| Eye contact:  | Rinse cautiously with clean water for at least 15 minutes and obtain medical attention                                                                                                                                                                                                                           |

immediately.  
 During rinsing, keep the eyelids open with fingers to ensure thorough washing of the entire eye and eyelid area.  
 Ingestion: Rinse the mouth thoroughly with water. Give plenty of water and induce vomiting if possible.  
 Seek medical attention immediately.

## 5. Fire-fighting measures

Because the product is non-flammable, no specific measures are required in case of fire.  
 Suitable extinguishing media: Water, powder, foam, or extinguishing agents appropriate for the surrounding fire.  
 Unsuitable extinguishing media: Lack of data.  
 Specific fire-fighting methods: In the event of a surrounding fire, promptly move containers to a safe location.  
 If moving is not possible, cool containers and surrounding areas by spraying water.  
 Special protective equipment and precautions for fire-fighters: Fire-fighters must wear appropriate protective equipment.

## 6. Accidental Release Measures

Precautions for human health  
 Emergency measures: Restrict access to the spill area by cordoning it off to prevent entry by unauthorized personnel.  
 Wear protective equipment to avoid skin contact and eye exposure during cleanup work.  
 Environmental precautions: Recover as much material as possible.  
 After recovery, wash the area with plenty of water.  
 Ensure that the wash water is within pH 6–8 and prevent concentrated solution from being discharged into rivers or other waterways.  
 Methods and materials for containment and cleaning up: For small spills, wipe up with cloths or absorbent materials.  
 For large spills, use sandbags or similar barriers to prevent spreading, then recover as much as possible using pumps into drums, tanks, or tank trucks.  
 Any remaining residue that cannot be recovered should be neutralized with hydrochloric acid or sulfuric acid.

## 7. Handling and Storage

[Precautions on handling]

Technical measures: Carry out the measures described in Section 8 “Exposure Controls / Personal Protection” and wear appropriate protective equipment.  
 Local and General Ventilation: Provide local exhaust and general ventilation as described in Section 8 “Exposure Controls / Personal Protection.”  
 Safe handling precautions: Wash hands thoroughly after handling.  
 Prevent leakage, overflow, and scattering. Do not handle containers roughly—avoid tipping, dropping, impacting, or dragging them.  
 Do not add concentrated acids.  
 Collect used empty containers in a designated area.

[Conditions for safe storage]

Safe storage conditions: Store in a cool, dark place away from direct sunlight. Keep the container tightly closed and avoid contact with air.  
 Since freezing causes gelation and the product will not return to its original state, store at room temperature.  
 Safe Container and Packaging Materials: Use stainless steel or polyethylene containers.  
 Avoid using metal containers other than stainless steel.

## 8. Exposure Controls/Personal Protection

[Administrative control Level]

Not established.

[Engineering controls]

Install hand-washing facilities, an eye-wash station, and a safety shower near areas where the product is stored or handled, as necessary.

For indoor work areas, enclose the emission source or install local exhaust ventilation.

[Personal protection equipment]

Dust protective mask

Dust mask certified by the national approval system.

Hand Protection

Chemical-resistant, impermeable protective gloves compliant with JIS T 8166.

Eye and Face Protection

Spectacle-type or goggle-type protective eyewear compliant with JIS T 8147.

Skin and Body Protection

Work clothing and rubber safety boots.

## 9. Physical/Chemical Properties

|                                                           |                                          |
|-----------------------------------------------------------|------------------------------------------|
| Physical state:                                           | Liquid                                   |
| Color:                                                    | Clear white (may appear slightly turbid) |
| Odor:                                                     | Odorless                                 |
| Melting/Freezing Point:                                   | Lack of data.                            |
| Boiling Point or Initial Boiling Point and Boiling Range: | Lack of data.                            |
| Flammability:                                             | Not explosive                            |
| Flash point:                                              | Not flammable                            |
| Auto-ignition Temperature:                                | Not self-igniting                        |
| Decomposition Temperature:                                | Not decomposable                         |
| Lower/Upper Explosion Limits / Flammability Limits:       | Lack of data.                            |
| pH:                                                       | Around 10                                |
| Kinematic Viscosity:                                      | Lack of data.                            |
| Vapor Pressure:                                           | Lack of data.                            |
| Solubility:                                               | Lack of data.                            |
| n-Octanol/Water Partition Coefficient:                    | Lack of data                             |
| density:                                                  | Lack of data.                            |
| Relative Vapour Density (Air = 1):                        | Lack of data.                            |
| Particle Characteristics:                                 | Lack of data.                            |

## 10. Stability and Reactivity

|                                     |                                                                                                                                                                                                                                                                   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity:                         | No information available.                                                                                                                                                                                                                                         |
| Chemical stability:                 | Non-flammable.<br>No flash point, flammability, oxidizing properties, self-reactivity, or explosiveness.<br>May undergo gelation when heated, cooled, or mixed with other chemicals.                                                                              |
| Possibility of hazardous reactions: | Reacts violently with hydrofluoric acid, generating silicon tetrafluoride gas.<br>Reacts violently with concentrated caustic alkalis, producing heat.                                                                                                             |
| Conditions to avoid:                | Freezing may cause gelation and the product will not return to its original state.<br>Avoid contact with amphoteric metals such as aluminum, zinc, tin, and lead.<br>Do not add concentrated acids. Keep the container tightly closed and avoid contact with air. |
| Incompatible materials:             | Hydrofluoric acid, acids, alkalis.<br>Amphoteric metals such as aluminum, zinc, tin, and lead.                                                                                                                                                                    |
| Hazardous decomposition products:   | No information available.                                                                                                                                                                                                                                         |

## 11. Toxicological Information

|                                                     |                                                                                                                                                                                                   |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute toxicity (oral):                              | No classification                                                                                                                                                                                 |
| Acute toxicity (dermal):                            | No classification                                                                                                                                                                                 |
| Acute toxicity (inhalation: gas):                   | No classification                                                                                                                                                                                 |
| Acute toxicity (inhalation: vapour):                | No classification                                                                                                                                                                                 |
| Acute toxicity (inhalation: dust):                  | No classification                                                                                                                                                                                 |
| Acute toxicity (inhalation: mist):                  | No classification                                                                                                                                                                                 |
| Skin corrosion/irritation:                          | No classification                                                                                                                                                                                 |
| Serious eye damage/eye irritation:                  | Classified as Category 1 because it contains "lithium silicate aqueous solution" at a concentration above the cutoff value (3%), which is classified as GHS Category 1 in the manufacturer's SDS. |
| Respiratory sensitization or Skin sensitization:    | Not classifiable due to insufficient data.                                                                                                                                                        |
| Germ cell mutagenicity:                             | No classification                                                                                                                                                                                 |
| Carcinogenicity:                                    | No classification                                                                                                                                                                                 |
| Reproductive toxicity:                              | No classification                                                                                                                                                                                 |
| Specific target organ toxicity (single exposure):   | No classification                                                                                                                                                                                 |
| Specific target organ toxicity (repeated exposure): | No classification                                                                                                                                                                                 |
| Aspiration hazard:                                  | Not classifiable.                                                                                                                                                                                 |

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**12. Ecological information**

|                                                  |                                                                                          |
|--------------------------------------------------|------------------------------------------------------------------------------------------|
| Hazardous to the aquatic environment (acute):    | No classification                                                                        |
| Hazardous to the aquatic environment(long-term): | Lack of data.                                                                            |
| Persistence and degradability:                   | Lack of data.                                                                            |
| Bioaccumulative potential:                       | Lack of data.                                                                            |
| Mobility in soil:                                | Lack of data.                                                                            |
| Hazardous to ozone layer:                        | Contains no substances listed in the Annexes of the Montreal Protocol. Not classifiable. |

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**13. Disposal Consideration**

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Residual waste:                        | After dilution with water, neutralize with hydrochloric acid, sulfuric acid, or similar acids, then filter and separate the precipitate.<br>When disposing of waste, comply with relevant laws and regulations as well as local municipal requirements.<br>If disposal is handled by a licensed industrial waste contractor authorized by the prefectural governor or by a local public body, entrust disposal to the appropriate contractor. |
| Contaminated containers and packaging: | Dispose of in accordance with relevant laws and local municipal regulations.<br>When discarding empty containers, ensure that all contents are completely removed.                                                                                                                                                                                                                                                                            |

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**14. Transport Information**

[International Regulations]

|                   |                |
|-------------------|----------------|
| Land transport:   | Not applicable |
| Sea transport:    | Not applicable |
| Air transport:    | Not applicable |
| UN number         | Not applicable |
| UN classification | Not applicable |
| Packing group     | Not applicable |
| Marine pollutant  | Not applicable |

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## [Japanese Regulations]

|                                                           |                                                                                                                                         |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Land transport regulations:                               | No information                                                                                                                          |
| Sea transport regulations:                                | No information                                                                                                                          |
| Air transport regulations:                                | No information                                                                                                                          |
| Specific safety measures and conditions during transport: | Ensure containers are free from leakage; load securely to prevent tipping, falling, or damage; take measures to prevent cargo collapse. |
| Emergency response guide number                           | Not applicable                                                                                                                          |

**15. Japanese Regulatory Information**

|                                                                                                                                                              |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Industrial Safety and Health Law:                                                                                                                            | Not applicable |
| Law Concerning the Reporting of the Release into the Environment of Specific Chemical Substances and Promoting Improvements in Their Management. (PRTR Law): | Not applicable |
| Poisonous and Deleterious Substances Control Law:                                                                                                            | Not applicable |

**16. Other information**

## [Reference]

- 1) 15107 Chemical Products, Chemical Daily Co., Ltd.
- 2) Existing Chemical Substances Data Handbook, 1974 Edition
- 3) New Guide to Handling Poisonous and Deleterious Substances, 1983 Edition, Jiji Press
- 4) Manual for Handling Hazardous Materials and Poisonous Substances, 1974, Overseas Technical Data Research Institute
- 5) Sax's Dangerous Properties of Industrial Materials, Maruzen
- 6) Chemical Substances Occupational Safety and Health Regulation Handbook
- 7) Information on Teratogenic and Other Developmental Toxic Substances, 1st Edition, Toyo Shoten
- 8) Chemical Handbook, Maruzen
- 9) Comprehensive Toxicity Data of Chemical Substances, 11th Edition, compiled by NIOSH (U.S. National Institute for Occupational Safety and Health)
- 10) Occupational Health, Dec. 1991, Vol. 381 (List of Carcinogenic Classifications of Chemical Substances, etc.)
- 11) REACH Registration Information

The information contained herein may be revised based on new knowledge.

Among the descriptions of this MSDS, the information such as the content and the physical/chemical properties does not represent a guarantee. Evaluation of hazards is prepared based on our material and data of the product available at the date of publishing, but it is not considered to be exhaustive.