

Safety Data Sheet

1. IDENTIFICATION

Chemical product name: Formed Glass Aggregate “Porous Alpha (Porous α) P310/P03/PG1020/PG2035”

Name of manufacturer: Tottori Resource Recycling, Inc.

Address: 583, Higashisono, Hokuei-cho, Tohaku-gun, Tottori, Japon

Contact: <https://www.t-rrl.jp/en/contact/> (via company website)

Phone number: +81-(0)858-49-6230 FAX number: +81-(0)858-49-6288

Emergency phone number: +81-(0)858-49-6230

Recommended use of the chemical and restrictions on use: Soil conditioning, Water treatment, Microbial Deodorizing

2. HAZARDS IDENTIFICATION

Physical hazards: Not identified

Health hazards: Not identified

Environmental hazards: Not identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Soda-lime glass

Chemical formula or constitutional formula: Ab esse (amorphousness)

Discrimination of single component

Composition and Component information:

Ingredients (Chemical formula)	Composition (%)	CAS Number 1)
SiO <sub>2</sub>	69.7~73.5	7631-86-9
Na <sub>2</sub> O	12.9~14.2	1313-59-3
CaO	10.0~11.0	1305-78-8
Al <sub>2</sub> O <sub>3</sub>	1.8~2.8	1344-28-1
K <sub>2</sub> O	0.1~1.6	12136-45-7
Fe <sub>2</sub> O <sub>3</sub>	0.03~0.26	1309-37-1

99% are composed with the above component.

Besides Ti, Cr, Mn, Ni and S etc. are included as minor elements.

4. FIRST-AID MEASURES

Inhalation: Move the exposed person to fresh air at once, blow the nose and gargle with water. Get medical attention in case to inhalant heavily.

Skin contact: Flush skin with plenty of water

Eye contact: Flush eyes with a lot of water immediately. Get medical attention if irritation develops.

Ingestion: Wash out mouth with a lot of water or salt water. Get medical attention in case to ingest heavily.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Extinguishing agent, water \*for surrounding fires, extinguishing agent is suitable.

Unsuitable extinguishing media: None (no chemical reaction to extinguishing agent)

Specific hazards arising from the chemical: Not identified

Note: Non-flammable. Softening arises at a high temperature.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Not required

Environmental precautions: Not required

Methods and material for containment and cleaning up: Not required

## 7. HANDLING AND STORAGE

Precautions for safe handling: jettisoning is prohibited to avoid breaking bag.

Storage: Storage in building is desirable.

## 8. XPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

•ACGIH(TLVs)-TWA(2018)<sup>2)</sup>: Inhalable 10mg/m<sup>3</sup>, Respirable 3mg/m<sup>3</sup>

(Debris, rocks, minerals, metal or carbon dust)

Appropriate engineering controls: Exposure space should be enclosed, or local evacuation device should be installed in case to use in building.

Personal protective equipment: Antidust mask, dust-proof glasses, protection gloves, working cloth, working cap, protective footwear.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Achroma or light green etc.

Odor: Odorless

True density: ca 2.5 g/cm<sup>3</sup>

Size density: 0.9~1.2 g/cm<sup>3</sup>

Grain shape: Abrasive infinite shape

pH: Max. pH 10.3 or pH 7(after water washing)

Solubility: Insoluble

Softening temperature: 720~730°C (unresolved)

Volatile: N/A

Ignitability/ Explosibility/ Flammability: N/A

Dust explosivity: N/A

## 10. STABILITY AND REACTIVITY

Self-reaction or explodability: N/A

Chemical stability: Stable

Possibility of hazardous reactions: N/A

Conditions to avoid: No required

Incompatible materials: N/A

Hazardous decomposition products: Not identified

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity: N/A

Skin corrosion/irritation: N/A

Serious eye damage/irritation: N/A

Skin sensitization: N/A

Germ cell mutagenicity: N/A

Carcinogenicity: N/A

Reproductive toxicity: N/A

Specific target organ toxicity (Single exposure): N/A

Specific target organ toxicity (Repeated exposure): N/A

Aspiration hazard: There is a possibility that deposits in the lung when suck it by scattering, but the symptoms does not come out immediately.

## 12. ECOLOGICAL INFORMATION

PRTR materials are not included.

Based on the result of leaching test, Porous Alpha is compliant to Japanese soil environmental standard <sup>3)</sup>.

## 13. DISPOSAL CONSIDERATIONS

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Applicable for soil improvement agent or land-fill materials.

## 14. TRANSPORT INFORMATION

Special shipping information: Not regulated

TDG regulation: Not regulated

IATA regulation: Not regulated

## 15. REGULATORY INFORMATION

Not conflict with Industrial Safety and Health Act.

## 16. OTHER INFORMATION

References cited:

- 1) Japan Chemicals Collaborative Knowledge Database (National Institute of Technology and Evaluation)
- 2) 2018 Guide to Occupational Exposure Values (ACGIH)
- 3) Environmental Quality Standards for Soil Pollution (Ministry of the Environment)

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The information herein is given in accordance with the data in a variety of technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions.

In addition, the information herein is made based on the latest information by our investigation at the time of creation, but please understand that revision is possible by amendment of laws, regulations or the announcement of new toxicity test results.