

Material Safety Data Sheet

MSDS-007

| Product name | CAS No. | KE No. | UN No. | EU No. |
|-----------------|-----------|----------|--------|--------|
| Sodium alginate | 9005-38-3 | KE-00492 | - | - |

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product name Sodium alginate
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Recommendations uses of the product thickener
Restrictions on use of the product None
- 1.3 Details of the supplier of the safety data sheet
Company KOREA CARRAGHEEN CO.,LTD
Address 90, SANDAN 4-GIL, SEO-MYEON, SUNCHEON-SI
Emergency telephone +82-61-755-9455

2. HAZARDS IDENTIFICATION

- 2.1 Potential Acute Health Effects
Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.
- 2.2 Potential Chronic Health Effects
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
- 2.3 Other hazards - none
- 2.4 NFPA(National Fire Protection Association)
- | | |
|--------------|------|
| Health | 1 |
| Flammability | 1 |
| Reactivity | 0 |
| Special | none |

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances Sodium alginate
- 3.2 Content(%)

| Chemical Name | CAS# | Wt.% |
|-----------------|-----------|------|
| Sodium alginate | 9005-38-3 | 100 |

4. FIRST AID MEASURES

- 4.1 Description of first aid measures



General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If inhaled, remove to fresh air.

If not breathing, give artificial respiration.

If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact

Wash with soap and water.

Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Cold water may be used.

In case of eye contact

Check for and remove any contact lenses.

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

Cold water may be used. Get medical attention if irritation occurs.

If Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel.

Never give anything by mouth to an unconscious person.

Loosen tight clothing such as a collar, tie, belt or waistband.

Get medical attention if symptoms appear.

5. FIREFIGHTING MEASURES

- | | |
|---|--|
| 5.1 Flammability of the Product | May be combustible at high temperature. |
| 5.2 Auto-Ignition Temperature | Not available. |
| 5.3 Flash Points | Not available. |
| 5.4 Flammable Limits | Not available. |
| 5.5 Products of Combustion | These products are carbon oxides (CO, CO ₂). Some metallic oxides. |
| 5.6 Fire Hazards in Presence of Various Substances | Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks. |
| 5.7 Explosion Hazards in Presence of Various Substances | Risks of explosion of the product in presence of mechanical impact Not available Risks of explosion of the product in presence of static discharge Not available. |
| 5.8 Fire Fighting Media and Instructions | SMALL FIRE Use DRY chemical powder. LARGE FIRE Use water spray, fog or foam. Do not use water jet. |
| 5.9 Special Remarks on Fire Hazards | Not available. |
| 5.10 Special Remarks on Explosion Hazards | Not available. |

6. ACCIDENTAL RELEASE MEASURES

6.1 Small Spill

Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

6.2 Large Spill

Use a shovel to put the material into a convenient waste disposal container.
Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. HANDLING AND STORAGE

7.1 Precautions

Keep away from heat. Keep away from sources of ignition.
Empty containers pose a fire risk, evaporate the residue under a fume hood.
Ground all equipment containing material.
Do not ingest. Do not breathe dust.
If ingested, seek medical advice immediately and show the container or the label.
Keep away from incompatibles such as oxidizing agents, acids, alkalis.

7.2 Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.2 Personal Protection

Safety glasses.
Lab coat.
Dust respirator.
Be sure to use an approved/certified respirator or equivalent.
Gloves.

8.3 Personal Protection in Case of a Large Spill

Splash goggles.
Full suit.
Dust respirator.
Boots.
Gloves.
A self contained breathing apparatus should be used to avoid inhalation of the product.
Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling

this product.

8.4 Exposure Limits

Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|-------------------|--------------------------------------|
| a) Appearance | white ~ pale brown powder |
| b) Odour | Odorless |
| c) Loss on Drying | max, 15% |
| d) pH | 6.0~8.0(1.5% solution) |
| e) Viscosity | min, 2,500cps(1.5% solution at 20°C) |

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Routes of Entry

Inhalation. Ingestion.

11.2 Toxicity to Animals

Acute oral toxicity (LD50): >5000 mg/kg [Rat].

11.3 Chronic Effects on Humans

Not available

11.4 Other Toxic Effects on Humans

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation

11.5 Special Remarks on Toxicity to Animals

Not available

11.6 Special Remarks on Chronic Effects on Humans

Not available.

11.7 Special Remarks on other Toxic Effects on Humans

Acute Potential Health Effects

Skin: May cause skin irritation.

Eyes: May cause eye irritation.

Inhalation: May cause respiratory tract irritation.

Low hazard for usual industrial handling.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

Low hazard for usual industrial handling.

The greatest danger from ingestion of large quantities is intestinal obstruction.

The toxicological properties of this substance have not been fully investigated.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Not available.

12.2 BOD5 and COD

Not available

12.3 Products of Biodegradation

Possibly hazardous short term degradation products are not likely.

However, long term degradation products may arise.

12.4 Toxicity of the Products of Biodegradation

The product itself and its products of degradation are not toxic.

12.5 Special Remarks on the Products of Biodegradation

Not available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. TRANSPORT INFORMATION

14.1 DOT Classification

Not a DOT controlled material (United States).

14.2 Identification

Not applicable.

14.3 Special Provisions for Transport

Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

| | |
|--------------------------------|-------------|
| 16.1 Source of data | |
| Date First | Nov-28-2013 |
| 16.2. Revision number and date | |
| Revision number | 1st |
| Revision date | Nov-28-2013 |