Safety Data Sheet (SDS)

Reference Number	KM-01W
Creation Date	Jul. 24, 1995
Revision Date	Jan. 23, 2023

1. Identification

Product name	KIMICA ALGIN
Product code	01
Manufacture's name	KIMICA Corporation
Address	2-1-1, Yaesu, Chuo-ku, Tokyo, 104-0028 Japan
Telephone number	81-3-3548-1941 (KIMICA - Head Office)
Fax number	81-3-3548-1942
E-mail	tokyo-office@kimica.jp
Emergency telephone number	81-439-87-1131 （KIMICA - Chiba Plant）
Recommended use	Thickener, Stabilizer, Gelling agent and etc. in Food, Pharmaceutical, Cosmetics and other industries.
Limit in the use	None

2. Hazard identification

GHS classification

Physical and chemical hazards

Explosives	Classification not possible
Flammable gases	Out of classification
Aerosols	Out of classification
Oxidizing gases	Out of classification
Gases under pressure	Out of classification
Flammable liquids	Out of classification
Flammable solids	Not classified
Self-reactive substances	Classification not possible
Pyrophoric liquids	Out of classification
Pyrophoric solids	Not classified
Self-heating substances	Not classified
Substances which, in contact with water, emit flammable gases	Not classified
Oxidizing liquids	Out of classification
Oxidizing solids	Classification not possible
Organic peroxides	Classification not possible
Corrosive to metals	Classification not possible

Health hazards

Acute toxicity-oral	Not classified
Acute toxicity-dermal	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage	Not classified
Eye irritation	Not classified
Respiratory sensitization	Classification not possible
Skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

Reproductive toxicity	Not classified
Specific target organ toxicity -single exposure	Not classified
Specific target organ toxicity -repeated exposure	Not classified
Aspiration hazard	Classification not possible
Environmental hazards	
Hazard to the aquatic environment(acute)	Classification not possible
Hazard to the aquatic environment(chronic)	Classification not possible
Label Element	
Pictogram or symbol	None
Signal word	None
Hazard statement	None
Precautionary statement	
Safety measure	Wash hands thoroughly after handling the product
First aid measures	In case of skin contact, wash with running water or shower and soap. If in eyes, rinse carefully with water for several minutes. If skin irritation, rash or eye irritation persists, seek medical advice and attention
Storage	Keep container tightly closed and store in a cool, well-ventilated place.
Disposal	Outsource the contents and containers to a specialized waste disposal contractor licensed by the prefectural governor.

3. Composition/information on ingredients

Substance/Mixture distinction	Substance
Chemical name or general name	Sodium Alginate
Another name	None
CAS No.	9005-38-3
Reference Number in Gazetted List in Japan(Chemical Substances Control Law)	8-237
Reference Number in Gazetted List in Japan(Industrial Safety and Health Act)	11-(4)-21

4. First -aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you cough violently or have difficulty breathing, get medical advice immediately while giving oxygen.
Skin contact	Rinse with running water or shower and soap. If skin irritation or rash occurs, seek medical advice and attention.
Eye contact	Rinse with water for a few minutes. Then remove contact lenses, if present and easy to do. Continue cleaning thereafter. If eye irritation persists, seek medical advice and attention.

Ingestion	Rinse your mouth. Don't force yourself to vomit. If you feel unwell, seek medical advice and attention.
Most important symptoms and effects, both acute and delayed	None
Personal protective equipment (PPE) for first-aid responders	See section 8.
Special precautions for doctors	None
Other	Change contaminated clothing.

5. Fire-fighting measures

Suitable extinguishing media	Use water, foam or dry chemical powder.
Banned extinguishing media	No data available
Specific hazard	No data available
Specific extinguishing method	Cut off source of combustion and extinguish with extinguishing media. Be careful not to splash the product with high pressure water. Contaminated fire-fighting wastewater should not be discharged into rivers without treatment.
Protection for firefighters	Wear fire-resistant clothing, gloves and mask. Stand upwind to avoid inhaling scattered dust and gases decomposed by burning, and evacuate from low places.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear protective equipment with sufficient ventilation to prevent exposure.
Environmental precautions	Be careful not to allow this product to drain into drains.
Methods and materials for containment and cleaning up	Sweep with a broom or collect with a vacuum cleaner while paying attention to the scattering of dust. This product swells when it absorbs water, and it becomes viscous. If it has absorbed water on the floor, wash it away with a large amount of water and remove it neatly.

7. Handling and storage

Handling

Engineering controls	Handle in a well-ventilated place. Take the equipment measures and wear protective equipment described in “8. Exposure controls/personal protection” .
Precautions for safe handling	Handle the container (craft bag + plastic bag) carefully so as not to damage it. Avoid getting wet and rough handling, and avoid scattering powder. Avoid contact with skin, eyes and clothing, and swallowing.
Contact avoidance materials	Avoid contact with water, moisture and hot bodies.
Advice on general occupational hygiene	When handling this product, wear protective equipment and pay attention to foreign matter contamination.

Storage

Safe Storage conditions	Avoid moisture and store in a cool, dark place. Storage areas should be clean to prevent product contamination.
Safe Containers and Packaging	Sealable containers without damage or getting wet

8. Exposure controls/personal protection

Standard control concentration	
Allowable concentration	No settings
Japan Society for Occupational Health	No settings
ACGIH	No settings
Equipment measures	Install as closed equipment and local exhaust as possible
Protective equipments	
Respiratory protective equipment	Dust mask
Hand protection equipment	Chemical resistant gloves
Eye protection equipment	Safety glasses
Skin and body protection equipment	Chemical resistant protective clothing

9. Physical and chemical properties

Physical state	Solid
Colour	White to yellowish white
Odour	Odorless
Melting point/Freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability (solid, gas)	No data available
Lower and upper explosion limit /flammability limit	Not applicable because of solid
Flash point	Not applicable because of solid * In the flash point measurement according to JIS K 2265-2 (rapid equilibrium sealing method), there is no flash point because the seed flame disappears around 240 °C due to the generated nonflammable gas.
Auto-ignition temperature	Not applicable because of solid
Decomposition temperature	Not applicable because of neither self-reactive substances, organic peroxides, nor decomposable substances
pH	6.0-8.0 (1 % solution)
Dynamic viscosity	Not applicable because of solid
Solubility	Soluble in water, insoluble in organic solvents
Partition coefficient n-octanol / water	No data available
Vapor pressure	No data available
Density(relative density)	No data available
Vapor density	Not applicable because of solid
Particle characteristics	No data available
GHS classification	
Flammable solids	This product is not flammable, and there is no risk of ignition or aggravation of ignition due to friction, so it is not classified into the category.
Pyrophoric solids	This product does not spontaneously ignite when in contact with room temperature air, so it is not classified into the category.
Self-heating substances	This product does not have self-heating properties due to contact with air, so it is not classified into the category.
Substances which, in contact with water, emit flammable gases	This product dissolves in water and is considered to be stable against water, so it is not classified into the category.

10. Stability and reactivity

Reactivity	Not reactive under normal handling conditions (indoor, normal temperature)
Chemical stability	Stable under normal handling conditions (indoor, normal temperature)
Possibility of hazardous reactions	No data available
Conditions to avoid	Storage under high temperature
Incompatible materials	None
Hazardous decomposition products	None

11. Toxicological information

Acute toxicity

LD_{50}	Oral-Rat	＞5.000 mg/kg
LD_{50}	Intravenous-Rat	1,000 mg/kg
LD_{50}	Intravenous-Mouse	＜20 0mg/kg
LD_{50}	Intravenous-Rabbit	100 mg/kg
LD_{50}	Intraperitoneal-Cat	250 mg/kg

Skin corrosion/irritation/ Skin sensitization

Twelve subjects with no history of allergies were patch tested with 20 % sodium alginate aqueous solution, and skin reactions on days 2 and 3 of patch application based on the criteria recommended by ICDRG (International Contact Dermatitis Research Group). In one subject, a ± reaction was observed on days 2 and 3, but it was reported that the sodium alginate aqueous solution did not show a reaction of skin irritation and allergic contact dermatitis.

Serious eye damage/eye irritation

Eye irritation score (0-110) was 10 or less when 2 % sodium alginate aqueous solution was instilled into rabbit eyes and eye irritation was evaluated 1 and 24 hours after instillation and 2, 3, 4 and 7 days later. Since there was a report that no corneal opacity occurred and no eye irritation was shown.

Respiratory sensitization

No data available

Germ cell mutagenicity

Reverse mutation test, Chromosomal aberration test：Negative

Carcinogenicity

Mice were dosed 25 %(1.75 g/kg body weight/day) of Sodium alginate in the diet for 89 weeks, but no evidence of carcinogenicity were found.

Reproductive toxicity

After two generations of rats were fed 5 %(1.0 g/kg body weight/day) of Sodium alginate, no abnormalities in growth rate or fertility were observed.

Specific target organ toxicity - single exposure

Healthy adults ingested 8 g/day for 7 days without adverse reactions.

Specific target organ toxicity - repeated exposure

Healthy men received a dose of 175 mg/kg body weight per day for 7 days, followed by a dose of 200 mg/kg body weight per day for 16 days, followed by a 7-day recovery period, and various tests were performed.There are no significant changes in haematology, blood chemistry, or urinalysis parameters.

Aspiration hazard

No data available

Other Information

Repeated dose toxicity

Rats were fed 5 %(1.0 g/kg body weight/day) of Sodium alginate in the diet for 128 weeks, but there were no toxic effects on survival, body weight, food and water consumption, and no abnormalities were observed on necropsy.
Dogs were dosed 15 %(6.0 g/kg body weight/day) of Sodium alginate in the diet for 1 year, but no treatment-related effects were observed.

Other Information	The European Food Safety Authority (EFSA) has re-evaluated that no adverse effects were reported at the maximum doses tested in carcinogenicity studies and that there were no concerns about genetic toxicity. It also makes no need of the acceptable daily intake (ADI).

12. Ecological information

Ecotixicity

Hazard to the aquatic environment (acute)	Classification not possible due to no data available
Hazard to the aquatic environment (chronic)	Classification not possible due to no data available
Persistence and degradability	It is easily degraded by microorganisms in the environment.
Bioaccumulative potential	No data available
Mobility in soil	No data available
Adverse effects to the ozone layer	Not classified because it does not contain ozone-depleting substances listed in the Annex of the Montreal Protocol.

13. Disposal considerations

Residual waste	Dispose of by a contractor with a license for industrial waste treatment. Dispose of properly according to national and local laws.
Contaminated containers and packaging	Containers should be cleaned and recycled or disposed of properly according to national and local regulations. When disposing of empty containers, completely remove the contents.

14. Transport information

UN number

UN number	Not applicable
Product name (UN proper shipping name)	Not applicable
Transport hazard class	Not applicable
Packing group	Not applicable
Marine pollutants	Not applicable
Liquid substances transported in bulk according to MAROL 73/78 Annex II and IBC Code	Not applicable

International regulations

Maritime regulatory information	Non-dangerous goods
Aviation regulation information	Non-dangerous goods

Domestic regulations

Land regulation information	Non-dangerous goods
Maritime regulatory information	Non-dangerous goods
Aviation regulation information	Non-dangerous goods
Special safety measures for transportation or means of transportation	Not applicable

Other (geneal) attention	Avoid loading the bag in direct sunlight and avoiding damage, corrosion or leakage of the paper bag.Ensure that cargo collapse is prevented. See also "7. Handling and storage".

15. Regulatory information

(1) Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register / PRTR Law)	Not applicable
(2) Occupational Safety and Health Act	Not applicable
(3) Poisonous and Deleterious Substances Control Act	Not applicable
(4) Explosives Control Act	Not applicable
(5) High Pressure Gas Safety Act	Not applicable
(6) Fire Service Act	Not applicable
(7) Chemical Substances Control Law	Not applicable
(8) Ship Safety Act	Not applicable
(9) Water Pollution Prevention Act	Not applicable
(10) Food Sanitation Act	The provisions on food additives apply.

16. Other information

E No.	E401
EINECS No.	Not assigned
TSCA Inventory Status	Active

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.