

【1. Identification】

Chemical substance name:	Sodium stearate (C16-C18 fatty acid, sodium salt)
Product name:	Sodium stearate
Company name:	Dainichi Chemical Industry Co., Ltd.
Address:	7-3-4, Nakaishikiri-cho, Higashiosaka-shi, Osaka-fu, 579-8014, Japan
Associated department:	Technical department
Telephone number:	+81-72-985-1851
Emergency contact number:	+81-72-985-1851
FAX number:	+81-72-987-0170
Recommended use:	Additives for resin
restriction on use:	Expert judgment is required when using for purposes other than those recommended.

【2. Hazards identification】

1. GHS classification

a. Physical hazards

Explosive:	Not classified
Flammable gases:	Not classified
Aerosols:	Not classified
Oxidizing gases:	Not classified
Gases under pressure:	Not classified
Flammable liquid:	Not classified
Flammable solids:	Classification not possible
Self-reactive substances and mixture:	Not classified
Pyrophoric liquids:	Not classified
Pyrophoric solids:	Not classified
Self-heating substances and mixtures:	Classification not possible
Substances and mixture which, in contact with water, emit flammable gases:	Not classified
Oxidizing liquids:	Not classified
Oxidizing solids:	Not classified
Organic peroxides:	Not classified
Corrosive to metals:	Classification not possible
Desensitized explosives:	Not classified

b. Health hazards

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Classification not possible
Acute toxicity (gases):	Not classified
Acute toxicity (vapors):	Not classified
Acute toxicity (dusts and mists):	Classification not possible
Skin corrosion/irritation:	Not classified
Serious eye damage / eye irritation:	Not classified
Respiratory sensitization:	Classification not possible
Skin sensitization:	Classification not possible
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Classification not possible
STOT-single exposure:	Classification not possible
STOT-repeated exposure:	Classification not possible
Aspiration hazard:	Classification not possible

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c. Environmental hazards

Acute aquatic hazard: Category 2
Chronic aquatic hazard: Category 3
Hazardous to the ozone layer: Classification not possible

d. Others

Risk of dust explosion

2. GHS Label elements, including precautionary statements

Signal words: Not available
Hazard pictogram: Not available
Other Hazard statements: Toxic to aquatic life
Harmful to aquatic life with long lasting effects
May form explosible dust-air mixture if dispersed

【3. Composition/Information on ingredients】

Substance/Mixture: Substance
Chemical substance name: Sodium stearate (C16-C18 fatty acid, sodium salt)
CAS number: 822-16-2(68424-38-4)
ENCS number: 2-611
EINECS number: 212-490-5(270-299-2)

【4. First-aid measures】

Inhalation: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical advice.
On skin: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical advice, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.
In eyes: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical advice.
Ingestion: If large amount is swallowed, get medical advice.

【5. Fire-fighting measures】

Suitable Extinguishing media: Water spray, foam-extinguisher, powder-extinguisher and dry chemical
Inappropriate extinguishing media: Straight stream water
Specific hazards arising from the substance or mixture: Hazardous fume containing COX and NOX might be formed during combustion.
Special protective actions for fire-fighters: Fire-fighters should wear an appropriate respiratory apparatus and protective clothes for chemical.

【6. Accidental release measures】

Personal precautions, protective equipment and emergency procedures:

Use proper protective equipment as indicated in Section 8.
Avoid direct contact with the spilled or leaked material.
Avoid inhaling this product in the air (Powder dust).
Evacuate the area if large amount of product is leaked.
Ventilate the area if necessary.

Environmental precautions:

Avoid flowing out to the rivers, household drains and other environment.

Methods and materials for containment and cleaning up:

Rake spills with a broom and collect it in appropriate container.
Store the container in a cool and dry place until it disposes.
Ventilate the area where this product was released.

【7. Handling and storage】

Precautions for safe handling:

Refer to Section 8.
Wash hands carefully after handling this product.
Prohibit open flames while handling this product.
Use dust explosion-proof electrical equipment and light fixtures.
Avoid diffusion of this product to the air.
Do not eat, drink or smoke while handling this product.
Store this product in well-ventilated, dry and cool place.
Please make sure that the storage is not close to open flames, sparks and heat.
Please make sure that the container of this product is tightly closed when store this product.
Please use antistatic containers.

Conditions for safe storage, including any incompatibilities:

【8. Exposure controls/Personal protection】

Control parameters

ACGIH:

Appropriate engineering controls

TWA 10 mg/m³(I), 3 mg/m³(R),STEL -
Eye washer and safety shower should be placed in storages where this product is stored and in buildings where this product is handled.
Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Personal protective equipment

Hands:

Wear appropriate protective gloves.

Eyes:

Wear appropriate safety glasses.

Skin and Body:

Wear appropriate protective clothes.

Respiratory:

Wear air-purifying respirator with a tight-fitting facepiece and a high-efficiency particular filter.

【9. Physical and chemical properties】

Physical state:

solid (powder)

Color:

white yellow

Odor:

No data available

Melting point/Freezing point:

210~230°C

Boiling point or initial boiling point and boiling range:

No data available

Flammability:	No data available
Lower and upper explosion limit/flammability limit:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Kinematic viscosity:	No data available
Solubility:	soluble in water
Partition coefficient/n-octanol/water(log value):	No data available
Vapor pressure:	No data available
Density and/or relative density:	No data available
Relative vapor density:	No data available
Particle characteristics:	No data available

【10. Stability and reactivity】

Reactivity:	Not in particular.
Chemical stability:	Stable in general condition.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	Slightly flammable, avoid high temperature. High concentration dispersion in air might result in powder
Incompatible materials:	Not in particular.
Hazardous decomposition product:	This product will form fume containing COX and NOX on heating or burning.

【11. Toxicological information】

Acute toxicity (Oral):	LD50 for rats: > 5,000 mg/kg (CIR Expert Panel (Experts Panel, Cosmetic Ingredient Review, 2019)) Not classified
Acute toxicity (Dermal):	No data available
Acute toxicity (Gases):	Not applicable
Acute toxicity (Vapors):	Not applicable
Acute toxicity (Dusts and mists):	No data available
Skin corrosion/irritation:	It was reported that, in a skin irritation test with rabbits, this substance was non-irritating (ACGIH (7th, 2017), CIR Expert Panel (Experts Panel, Cosmetic Ingredient Review, 2019)) Not classified
Serious eye damage / Eye irritation:	It was reported that, in an eye irritation test with rabbits in stearic acid (CAS RN 57-11-4), mild conjunctival erythema was shown in 2 of 6 animals at 24 and 48 hours after application, but all effects subsided completely within 72 hours (REACH registration dossier (Accessed Sep. 2021)) Not classified
Respiratory sensitization:	No data available
Skin sensitization:	No data available

Germ cell mutagenicity:

There was no data available on this substance, but based on the negative findings in various tests of magnesium stearate and stearic acid in (1) to (3), it was classified as "Not classified."

(1) Since magnesium stearate (CAS RN 557-04-0) was negative in an in vitro bacterial reverse mutation test and an in vitro chromosomal aberration test using the Chinese hamster lung cells (CHL/IU) and it was negative in an in vivo micronucleus test using the bone marrow cells of mice, it was judged to have no genotoxicity of particular concern to living organisms (Risk Assessment Report (Food Additive) (Food Safety Commission of Japan, 2016)).

(2) When magnesium stearate is orally ingested, it is thought to partially dissociate into magnesium ion and stearic acid in the stomach (Risk Assessment Report (Food Additive) (Food Safety Commission of Japan, 2016)).

(3) It was reported that, in an in vitro bacterial reverse mutation test, stearic acid (CAS RN 57-11-4) was negative (CIR Expert Panel (2019), Risk Assessment Report (Food Additive) (Food Safety Commission of Japan, 2008)).

Not classified

Carcinogenicity:

There was no data available on this substance, but it was classified as "Not classified" based on the classification results by other organizations for sodium stearate and other stearates in (1) and the negative findings in various tests for magnesium stearate and stearates in (2) to (4).

(1) As for the classification results by domestic and international organizations, the ACGIH classified stearic acid in A4 (ACGIH (7th, 2017)).

(2) In studies conducted in animals to assess the carcinogenic potential of stearates, either equivocal results which could not be determined to be positive or negative or negative results were obtained (ACGIH (7th, 2017)).

(3) In a 209-day feeding test with rats, no increase in tumors was observed in a group treated with stearic acid at 0.3% (3,000 ppm) (ACGIH (7th, 2017)).

(4) In a test with mice dosed by feeding stearic acid of up to 50 mg/kg/day (duration not reported), no carcinogenicity was observed (CIR Expert Panel (2019)).

Not classified

Reproductive toxicity:

No data available

STOT-single exposure:

No data available

STOT-repeated exposure:

No data available

Aspiration hazard:

No data available

【12. Ecological information】

Toxicity

Aquatic ecotoxicity:

48-hour EC50 = 19 mg/L for crustacea (Daphnia magna) (Ecotoxicity tests by Environment Agency, 2000).

21-day NOEC = 0.48 mg/L for crustacea (Daphnia magna) (Ecotoxicity tests by Environment Agency, 2000).

96-hour LC50 > 100 mg/L for fish (Oryzias latipes) (Ecotoxicity tests by Environment Agency, 2000).

Terrestrial ecotoxicity:	No data available
Persistence and degradability:	degradation rate by BOD: 83% (the existing chemicals survey program, 1994))
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
Other adverse effects:	No data available

【13. Disposal considerations】

Do NOT dump this product in the environment or in the household waste. Before disposal or incineration, contents of this product should be neutralized or stabilized if it's possible.

Obey local/regional/national/international regulations about the disposal or the incineration of this product (both contents and containers).

【14. Transport information】

UN number:	Not relevant as Not classified
UN Proper Shipping Name:	Not relevant as Not classified
Transport hazard class:	Not relevant as Not classified
Packing group:	Not relevant as Not classified
Environmental hazards:	Not relevant as Not classified
Special precautions for user:	Follow the transportation methods stipulated.
Transport in bulk according to IMO instruments:	Not applicable for product as supplied.

【15. Regulatory information】

Inventory information

Inventory Name	Sodium stearate	
	Status	Registry Number
AICS (Australia):	Present	—
DSL (Canada):	Present	—
IECSC (China):	Present	30035
EINECS (EU):	Present	212-490-5
ENCS (Japan):	Present	2-611
KECL (Korea):	Present	KE-26415
INSQ (Mexico):	Present	—
NZIoC (New Zealand):	Present	—
PICCS (Philippines):	Present	—
TSCA (U.S.A.):	Present	—

【16. Other Information】

Manufacturer information

Manufacturer name:	Formosa Organic Chemical Industry Co., Ltd.
Address:	575 Soi 11 Pattana 1 Road, Bangpoo Industrial Estate, Praeksa, Amper Muang, Samutprakarn, 10280, Thailand
Telephone number:	+66 2709 3016-9
Emergency contact number:	+66 2709 3016-9
FAX number:	+66 2324 0353

References

- 1 National Institute of Technology and Evaluation (NITE)
- 2 *GHS 9th edition*

Manufacture disclaimer

All information given in this SDS is based on the data which is considered to be accurate, but the information do not guarantee enough safety. All chemical material may have an unknown hazard to human and conditions of methods of handling, storage, use and disposal of the product are beyond suppliers' control; therefore all risks and consequences of use the product are on users' responsibilities and users need to set appropriate safety measures for special use.

In addition, all classification in this SDS was written in accordance with the GHS classification of the 9th revised edition. However, GHS mentioned that countries are free to determine which of the building blocks will be applied in different parts of label elements and building blocks. Therefore, many countries set own requirements of label elements and building blocks. In the cases of export from Japan or use in other countries, SDSs and labels are needed, which are in accordance with the local laws and regulations of exporting countries or user countries. Please contact supplier beforehand for checking SDSs and labels are suitable for the local laws and regulations.