

【1. Chemical product and company identification】

Chemical substance name:	Magnesium stearate (Fatty acids, C16-18, magnesium salts)
Product name:	Magnesium Stearate-H
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

【2. Hazards identification】

1. GHS classification

a. Physical hazards

Flammable solids:	Classification not possible
Pyrophoric solids:	Classification not possible
Self-heating substances and mixtures:	Classification not possible
Substances and mixture which, in contact with water, emit flammable gases:	Classification not possible
Corrosive to metals:	Classification not possible

b. Health hazards

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Classification not possible
Acute toxicity (gases):	Not applicable
Acute toxicity (vapors):	Not applicable
Acute toxicity (dusts and mists):	Classification not possible
Skin corrosion/irritation:	Category 3
Serious eye damage / eye irritation:	Category 2B
Respiratory sensitization:	Classification not possible
Skin sensitization:	Classification not possible
Germ cell mutagenicity:	Classification not possible
Carcinogenicity:	Classification not possible
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:

Classification not possible

Chronic aquatic hazard:

Classification not possible

Hazardous to the ozone layer:

Not applicable

2. Label elements

Signal words:

Warning

Hazard pictogram:

Not available

Hazard statement

H316:

Causes mild skin irritation.

H320:

Causes eye irritation.

Precautionary statement

Prevention

P264:

Wash eyes thoroughly after handling.

Response

P305+P351+P338:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313:

If eye irritation persists: Get medical advice/attention.

P332+P313:

If skin irritation occurs: Get medical advice/attention.

【3. Composition/Information on ingredients】

Substance/Mixture:

Substance

Chemical substance name:

Magnesium stearate
(Fatty acids, C16-18, magnesium salts)

CAS number:

557-04-0 (91031-63-9)

ENCS number:

(2)-615

EINECS number:

209-150-3 (292-967-2)

KECL number:

KE-26390 (KE-15065)

【4. First-aid measures】

IN EACH CASES OF FOLLOWING EMERGENCIES, VICTIMS SHOULD BE TREATED BY PARTICULAR FIRST-AID MEASURES AS FOLLOW

In eyes:

Flush eyes with plenty of water for at least 15 minutes. Then 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.

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.

Ingestion:

If large amount is swallowed, get medical advice.

【5. Fire-fighting measures】

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Suitable Extinguishing media:	Water spray, foam-extinguisher, powder-extinguisher and dry chemical
Inappropriate extinguishing media:	Straight stream water
Flammable properties:	Slight fire hazard. Dust/air mixtures may ignite or explode.
Special protective actions for fire-fighters:	Take away a product container from a fire if possible. Keep containers cool with a plenty of water after fire extinction. Fire-fighters should wear an appropriate respiratory apparatus and protective clothes for chemical.

【6. Accidental release measures 】

Personal precautions:	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).
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.
Environmental precautions:	Avoid flowing out to the rivers, household drains and other environment.

【7. Handling and storage 】

Handling:	Avoid contact with eyes, skin and clothes. Wash hands carefully after handling this product. Prohibit open flames while handling this product. Avoid deposition of this product. Use dust explosion-proof electrical equipment and light fixtures. Do not eat, drink or smoke while handling this product.
Storage:	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.

【8. Exposure controls/Personal protection】

Component Exposure Limit

ACGIH: 10mg/m³ TLV-TWA (Stearates)

Engineering controls:

Eye washer and safety shower should be placed in storages where this product is stored and in buildings where this product is handled.

Ventilation:

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】

Appearance:

White solid (powder)

Odor:

No data available

Odor threshold:

No data available

pH:

No data available

Melting point and freezing point:

130 - 160°C

Initial boiling point and boiling range:

Not applicable

Flash point (Open cup):

>200°C (>392°F)

Evaporation rate (Butyl acetate =1):

Not applicable

Flammability (solids, gas):

Not applicable

Explosive limits:

No data available

Vapor pressure:

Not applicable

Vapor density (Air =1):

Not applicable

Specific gravity or density:

1.03 g/cm³

Solubility:

3 mg/L in water at 15°C
Soluble in hot alcohol and benzene.

Partition coefficient: n-octanol/water:

No data available

Auto-ignition temperature:

690°C (1274°F)

Decomposition temperature:

No data available

Viscosity:

Not applicable

【10. Stability and reactivity】

Reactivity:

Not in particular.

Chemical stability:

Stable in general condition.

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Conditions to avoid:

Avoid contact with incompatible materials.
Avoid heat, flames, sparks and other sources of ignition.
If dry, it can be charged electrostatically by swirling,
pneumatic transport, pouring, etc.

Incompatible materials:

Oxidizing materials, acids

Hazardous decomposition product:

Oxides of magnesium and carbon

Possibility of hazardous reactions:

Heating or combustion reaction:

Hazardous

This product will form hazardous fume of oxides of magnesium and carbon on heating or burning.

[11. Toxicological information]

Acute toxicity (Oral):

Based on IUCLID (2000), Oral Rat LD50 is larger than 10000mg/kg, therefore classified as "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:

Based on NITE (2006), there is a possibility of skin irritation to human, therefore classified as "Category 3".

Serious eye damage / Eye irritation:

Based on NITE (2006), there is a possibility of eye irritation to human, therefore classified as "Category 2B".

Respiratory sensitization:

No data available

Skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

Reproductive toxicity:

No data available

STOT-single exposure:

No data available

STOT-repeated exposure:

No data available

Aspiration hazard:

No data available

Component analysis - LD50/LC50:

Oral LD50 Rat > 10000mg/kg

Inhalation (Dust)

Acute exposure:

Inhalation of dust may cause mild irritation.

Excessive amounts may produce coughing and difficult breathing.

Chronic exposure:

Excessive inhalation may cause a progressive chemical pneumonitis.

Skin contact

Acute exposure:

High concentrations may cause unpleasant deposits on the skin.

Injury may occur by chemical or mechanical action or by the rigorous skin cleansing procedures necessary for removal of the dust.

Chronic exposure:

No data available

Eye contact

Acute exposure:

High concentrations may cause unpleasant deposits in the eyes, mechanical irritation and seriously reduce visibility.

Chronic exposure:

No data available

Ingestion

Acute exposure:

Ingestion of a large amount of magnesium salts may cause diarrhea and abdominal pain.

More serious symptoms of hypermagnesemia, such as electrolyte imbalance, central nervous system depression and neurological and cardiac impairment, are rare in the absence of intestinal or renal disease since magnesium is poorly absorbed from the gastrointestinal tract and readily excreted by the kidneys.

Chronic exposure:

Magnesium preparations may cause phosphorus depletion syndrome.

【12. Ecological information】

Ecotoxicity

Aquatic ecotoxicity:

No data available

Terrestrial ecotoxicity:

No data available

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Mobility in soil:

No data available

Hazardous to the ozone layer:

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 Applicable on UN classification

HS code:

2915.70

US DOT:

No classification assigned

TDG:

No classification assigned

ADR:

No classification assigned

RID:

No classification assigned

IATA:

No classification assigned

ICAO:

No classification assigned

IMDG:

No classification assigned

Marine pollutant:

Not applicable

Particular safety measures for transportation:

Avoid damage to the container while loading this product.
Do not put heavy objects on top of this product.
Load carefully to prevent the collapse of cargo.
Avoid direct sunlight to this product during transport.

【15. Regulatory information】

Inventory information

Inventory Name	Magnesium stearate		Fatty acids, C16-18, magnesium salts	
	Status	Registry Number	Status	Registry Number
AICS (Australia):	Present	—	Unlisted	—
DSL (Canada):	Present	—	Unlisted	—
IECSC (China):	Present	30034	Present	41775
EINECS (EU):	Present	209-150-3	Present	292-967-2
ENCS (Japan):	Present	(2)-611	Unlisted	—
KECL (Korea):	Present	KE-26390	Present	KE-15065
INSQ (Mexico):	Present	—	Unlisted	—
NZIoC (New Zealand):	Present	—	Present	—
PICCS (Philippines):	Present	—	Present	—
HPV Chemicals (Turkey):	Present	209-150-3	Unlisted	—
Inventory (Turkey):	Present	EC No. 209-150-3	Present	EC No. 286-484-6
TSCA (U.S.A.):	Present	—	Unlisted	—

【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 ChemADVISOR, Inc. (2014). *Magnesium stearate* [Data file]. Retrieved from LOLI database.
- 2 ChemADVISOR, Inc. (2014). *Fatty acids, C16-18, magnesium salts* [Data file]. Retrieved from LOLI database.
- 3 IUCLID. (2000). Dataset for *fatty acids, C16-18, magnesium salts* [Data file].
- 4 National Institute of Technology and Evaluation (NITE). (2006). *Magnesium stearate* [Data file].

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- 5 National Institute of Technology and Evaluation (NITE). (2006). *Classification result e(ID801-900)* [Data file]. Retrieved from [http://www.safe.nite.go.jp/english/files/ghs_xls/classification_result_e\(ID801-900\).xls](http://www.safe.nite.go.jp/english/files/ghs_xls/classification_result_e(ID801-900).xls).
- 6 United Nations. (2013). *Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (5th ed.)*. (The Japanese GHS Inter-ministerial Committee, Trans.). Tokyo: The Chemical Daily Co., Ltd..

Key/ Legend

ACGIH - American Conference of Governmental Industrial Hygienists
AICS - Australia Inventory of Chemical Substances
ADR - European Road Transport
°C - degree Celsius
EINECS - European Inventory of Existing Commercial Chemical Substances (European Union)
ENCS - Existing and New Chemical Substances (Japan)
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
HPV - High Production Volume
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IECSC - Inventory of Existing Chemical Substances (China)
IMDG - International Maritime Dangerous Goods
INSQ - National Inventory of Chemical Substances (Mexico)
IUCLID - International Uniform Chemical Information Database
KECL - Korea Existing Chemicals Inventory
LD50 - Lethal Dose, 50% or Median Lethal Dose
LOLI - List Of Lists™-ChemADVISOR's Regulatory Database
NZIoC - New Zealand Inventory of Chemicals
PICCS - Philippines Inventory of Chemicals and Chemical Substances
RTECS - Registry of Toxic Effects of Chemical Substances®
RID - European Rail Transport
TDG - Transportation of Dangerous Goods
TSCA - Toxic Substances Control Act (U.S.A.)
UN - United Nations
CAS - Chemical Abstracts Service
DSL - Domestic Substances List
HS code - Harmonized System code
NITE - National Institute of Technology and Evaluation
STOT - Specific Target Organ Toxicity
TLV - Threshold Limit Value
TWA - Time Weighted Average
US DOT - United States Department of Transportation

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 fifth 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.