

【1. Chemical product and company identification】

Chemical substance name:	Lithium stearate (Fatty acids, C16-18, lithium salts)
Product name:	Daiwax L
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

b. Health hazards

Acute toxicity (oral):	Classification not possible
Acute toxicity (dermal):	Classification not possible
Acute toxicity (gases):	Classification not possible
Acute toxicity (vapors):	Not classified
Acute toxicity (dusts and mists):	Classification not possible
Skin corrosion/irritation:	Classification not possible
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

c. Environmental hazards

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

2. Label elements

Signal words:	Not available
Hazard pictogram:	Not available
Hazard statement	Not available
Precautionary statement	Not available

【3. Composition/Information on ingredients】

Substance/Mixture:	Substance
Chemical substance name:	Lithium stearate (Fatty acids, C16-18, lithium salts)
Synonym:	Octadecanoic acid, lithium salt
CAS number:	4485-12-5 (68783-37-9)
ENCS number:	(2)-611

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EINECS number: 224-772-5 (272-195-2)
KECI number: KE-26389 (KE-15046)

【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】

Suitable Extinguishing media:	Water spray, foam-extinguisher, powder-extinguisher and dry chemical
Inappropriate extinguishing media:	Straight stream water
Flammable properties:	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.
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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, NIOSH, EU, OSHA (US) and other organizations have not developed exposure limits for any of this product's components.

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.

【9. Physical and chemical properties】

Appearance:

White powder

Odor:

No data available

Odor threshold:

No data available

pH:

No data available

Melting point and freezing point:

210 - 230°C

Initial boiling point and boiling range:

Not applicable

Flash point (Open cup):

>232°C (>450°F)

Evaporation rate (Butyl acetate =1):

No data available

Flammability (solids, gas):

No data available

Explosive limits:

No data available

Vapor pressure:

No data available

Vapor density (Air =1):

No data available

Specific gravity or density:

No data available

Solubility:

Insoluble in water

Partition coefficient: n-octanol/water:

No data available

Auto-ignition temperature:

No data available

Decomposition temperature:

No data available

Viscosity:

No data available

【10. Stability and reactivity】

Reactivity:

Not in particular.

Chemical stability:

Stable in room temperature and pressure.

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

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Hazardous decomposition product:

Oxides of carbon and nitrogen

Possibility of hazardous reactions:

Heating or combustion reaction:

Hazardous

This product will form hazardous fume of nitrogen and carbon monoxide on heating or burning.

【11. Toxicological information】

Acute toxicity (Oral):

No data available

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:

No data available

Serious eye damage / Eye irritation:

No data available

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 > 15000mg/kg

Inhalation (Dust)

Acute exposure:

Inhalation of the dust may cause irritation and congestion of the respiratory tract. There is insufficient data as to whether or not systemic lithium toxicity may occur by this route.

Chronic exposure:

No data available

Skin contact

Acute exposure:

No data available

Chronic exposure:

No data available

Eye contact

Acute exposure:

Exposure to dust may cause irritation.

Chronic exposure:

No data available

Ingestion

Acute exposure:

Initial symptoms of a massive dose of lithium compounds may include nausea, vomiting, and profuse diarrhea. Other possible symptoms, which may be delayed, are hypotension, drowsiness, muscular weakness, ataxia, athetosis, muscle twitching, mild tremor, slurred speech, blurred vision, thirst, allergic erythema, malaise, anorexia, confusion, delirium, convulsions, coma, cardiac arrhythmias, and EKG changes.

Renal function impairment with glucosuria and albuminuria may occur. In severe poisoning, if death does not occur from respiratory and cardiac complications, there may be longterm or permanent effects usually of a cerebellar nature but sometimes with peripheral neuropathy or parkinsonism.

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Chronic exposure :

Repeated ingestion of lithium compounds may initially cause fine hand tremors, mild thirst, nausea, and general discomfort. Early signs of intoxication may be diarrhea, vomiting, drowsiness, weakness and incoordination. At higher levels, the symptoms of acute exposure may occur as well as giddiness, tinnitus, lowered renal concentrating ability with polyuria, headache, muscular and reflex hyperirritability, blackout spells, epileptiform seizures, vertigo, incontinence of urine or feces, memory impairment, psychomotor retardation, restlessness, stupor, and peripheral circulatory collapse.

Other reported symptoms include nephrosis, oliguria, dry mouth, alopecia, cutaneous hyperalgesia, folliculitis, skin eruptions, psoriasis, hypothyroidism or, less commonly, hyperthyroidism, leukocytosis, and changes in the EEG and EKG. When taken during pregnancy, lithium compounds may affect the newborn with cyanosis, hypotonia, central nervous system depression, and neonatal goiter, all of which are reversible. If taken early in the pregnancy, cardiovascular anomalies may result.

【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

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	Lithium stearate		Fatty acids, C16-18, lithium salts	
	Status	Registry Number	Status	Registry Number
AICS (Australia):	Present	—	Unlisted	—
DSL (Canada):	Present	—	Present	—
IECSC (China):	Present	30032	Unlisted	—
EINECS (EU):	Present	224-772-5	Present	272-195-2
ENCS (Japan):	Present	(2)-611	Unlisted	—
KECL (Korea):	Present	KE-26389	Present	KE-15046
INSQ (Mexico):	Unlisted	—	Unlisted	—
NZIoC (New Zealand):	Present	HSR003188	Unlisted	—
PICCS (Philippines):	Present	—	Unlisted	—
HPV Chemicals (Turkey):	Unlisted	—	Unlisted	—
Inventory (Turkey):	Unlisted	—	Unlisted	—
TSCA (U.S.A.):	Present	—	Present	—

【16. Other Information】

References

- 1 ChemADVISOR, Inc. (2014). Lithium stearate [Data file]. Retrieved from LOLI database.
- 2 ChemADVISOR, Inc. (2014). Fatty acids, C16-18, lithium salts [Data file]. Retrieved from LOLI database.
- 3 National Institute of Technology and Evaluation (NITE). (2006). Lithium stearate [Data file].
- 4 National Institute of Technology and Evaluation (NITE). (2006). Fatty acids, C16-18, lithium salts [Data file].
- 5 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

CAS - Chemical Abstracts Service
DSL - Domestic Substances List
HS code - Harmonized System code

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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 NITE - National Institute of Technology and Evaluation
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 STOT - Specific Target Organ Toxicity
TDG - Transportation of Dangerous Goods TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act (U.S.A.) TWA - Time Weighted Average
UN - United Nations 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.