

【1. Chemical product and company identification】

Chemical substance name:	N,N'-ethylenedistearamide	
Product name:	Daiwax BA	Daiwax BA-300
	Daiwax BA-P	Daiwax BA-500
	Daiwax BAP-1	Daiwax BA-3
	BA-GL	
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 Lubricants for powder metallurgy	

【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
Corrosive to metals:	Classification not possible
b. Health hazards	
Acute toxicity (oral):	Not applicable
Acute toxicity (dermal):	Classification not possible
Acute toxicity (gases):	Not classified
Acute toxicity (vapors):	Classification not possible
Acute toxicity (dusts and mists):	Classification not possible
Skin corrosion/irritation:	Not applicable
Serious eye damage / eye irritation:	Not applicable
Respiratory sensitization:	Classification not possible
Skin sensitization:	Classification not possible
Germ cell mutagenicity:	Not applicable
Carcinogenicity:	Classification not possible
Reproductive toxicity:	Classification not possible
STOT-single exposure:	Classification not possible
STOT-repeated exposure:	Not applicable
Aspiration hazard:	Classification not possible
c. Environmental hazards	
Acute aquatic hazard:	Not applicable
Chronic aquatic hazard:	Not applicable
Hazardous to the ozone layer:	Classification not possible

2. GHS Label elements

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

Safety Data Sheet

<Safety measures>	Do not handle until all safety precautions have been read and understood. Use in a well-ventilated area. Use personal protective equipment as required. Wash hands thoroughly after handling. Avoid generating dust.
<First Aid>	IF ON SKIN: if skin irritation and skin rash occur, get medical advice. IF IN EYE: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs, get medical advice. IF SWALLOW: Rinse mouths. Get medical advice if feels unwell.
<Storage>	Store in closed container. Protect from sunlight. Store in well-ventilated place.
<Disposal>	Dispose of contents/container according to local law and regulation.

【3. Composition/Information on ingredients】

Substance/Mixture:	Substance
Chemical substance name:	N,N'-ethylenedistearamide
Synonym:	Octadecanamide, N,N'-1,2-ethanediylbis-
CAS number:	110-30-5
ENCS number:	2-831
EINECS number:	203-755-6
KECL number:	KE-13662

【4. First-aid measures】

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

Inhalation:	Move to uncontaminated area. Give artificial respiration if not breathing. If breathing difficulties occur, oxygen administration should be administered by qualified personnel. If adverse effects occur, get immediate medical advice.
In eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice.
On skin:	Wash with plenty of water. If skin irritation persists: get medical advice.
Ingestion:	Rinse mouth with water. If large amount is swallowed, get medical advice.

【5. Fire-fighting measures】

Suitable Extinguishing media:	Foam-extinguisher, powder-extinguisher or dry chemical
Inappropriate extinguishing media:	Straight stream water
Flammable properties:	Hazardous fume containing COX and NOX might be formed during combustion.
Special protective actions for fire-fighters:	Move away the product container if possible. Use the suitable extinguishing media to put out fire from the upwind area. 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:

Wear proper protective equipments 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.

Methods and materials for containment and cleaning up:

Rake spills with a broom and collect it in appropriate containers.

Store the containers in a cool and dry place until disposing.

Ventilate the area where this product was released.

Environmental precautions:

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

Secondary disaster prevention:

Remove all ignition sources immediately after accidental release from the area.

【7. Handling and storage】

Handling:

Avoid contact with eyes, skin and clothes.

Avoid inhaling this product in the air (Powder dust).

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.

Avoid diffusion of this product to the air.

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 and antistatic when store this product.

【8. Exposure controls/Personal protection】

Component Exposure Limit

ACGIH:

10mg/m³ TLV-TWA

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

Respiratory:

Wear appropriate respirator with proper air filter.

Hands:

Wear appropriate protective gloves.

Eyes:

Wear appropriate safety glasses.

Skin and Body:

Wear appropriate protective clothes.

【9. Physical and chemical properties】

Appearance:	White solid (powder)
Odor:	Slightly distinctive odor
pH:	7.2(n-butanol/water=9/1)
Melting point and freezing point:	140-150°C
Initial boiling point and boiling range:	No data available
Flash point (Open cup):	>280°C (>536°F)
Explosive limits:	No data available
Vapor pressure:	13Pa at 25°C
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
Odor threshold:	No data available
Evaporation rate (Butyl acetate =1):	No data available
Flammability (solids, gas):	No data available
Viscosity:	10mPa·s at 180°C

【10. Stability and reactivity】

Chemical stability:	Stable in general condition.
Reactivity:	Nothing in particular.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	Avoid heat, flames, sparks and other sources of ignition. If dry, it can be charged electrostatically by swirling, pneumatic transport, pouring, etc.
Incompatible materials:	Nothing in particular.
Hazardous decomposition product:	Oxides of carbon , oxides of nitrogen

【11. Toxicological information】

Acute toxicity (Oral):	Based on IUCLID5 (2014), Oral Rat LD50 is larger than 2000mg/kg, therefore classified as "Not classified".
Acute toxicity (Dermal):	No data available
Acute toxicity (Gases):	Not classified
Acute toxicity (Vapors):	No data available
Acute toxicity (Dusts and mists):	No data available
Skin corrosion/irritation:	Not applicable
Serious eye damage / Eye irritation:	Not applicable
Respiratory sensitization:	No data available
Skin sensitization:	No data available
Germ cell mutagenicity:	Ames test (TA98, TA100): Negative Chromosomal aberration test (CHL cell): Negative
Carcinogenicity:	No data available

Reproductive toxicity:
STOT-single exposure:
STOT-repeated exposure:

No data available
No data available
Based on IUCLID5 (2014), no toxic effects were found in repeated dose 28-days oral toxicity study in rats and the no observed adverse effect level (NOAEL) was considered to be over 1000mg/kg/day for both sexes of rats, therefore classified as "not classified".

Aspiration hazard:

No data available

【12. Ecological information】

Ecotoxicity

Aquatic ecotoxicity:

OECD203: *Oryzias latipes*, 96h, LC50 > 0.027mg/L

OECD202: *Daphnia magna*, 48h, EC50 > 0.0022mg/L

OECD211: *Daphnia magna*, Reproduction test, 21d, NOEC > 0.00564mg/L

OECD201: *Pseudokirchneriella subcapitata*, Alga. Growth inhibition test, 72h, ErC50 > 0.053mg/L

OECD201: *Pseudokirchneriella subcapitata*, Alga. Growth inhibition test, 24-72h, NOECr > 0.053mg/L

Terrestrial ecotoxicity:

No data available

Persistence and degradability:

Non-biodegradable

OECD301C: BOD degradation rate = 1.1 %, 28d

Bioaccumulative potential:

Low bioconcentration

OECD305C: *Cyprinus carpio*, Bioconcentration rate < 6.2, 42d

Hazardous to the ozone layer:

No data available

Mobility in soil:

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	N,N'-ethylenedistearamide	
	Status	Registry Number
AICS (Australia):	Present	—
DSL (Canada):	Present	—
IECSC (China):	Present	38286
EINECS (EU):	Present	203-755-6
ENCS (Japan):	Present	2-831
KECL (Korea):	Present	KE-13662
INSQ (Mexico):	Present	—
NZIoC (New Zealand):	Present	—
PICCS (Philippines):	Present	—
TSCA (U.S.A.):	Present	—

【16. Other Information】

References

- 1 ChemADVISOR, Inc. (2014). *N,N'-Ethylenebisstearamide* [Data file]. Retrieved from LOLI database.
- 2 IUCLID. (2000). *Dataset of N,N'-Ethylenebisstearamide* [Data file].
- 3 IUCLID5. (2014). *Dataset for N,N'-Ethylenebisstearamide* [Data file].
- 4 National Institute of Technology and Evaluation (NITE). (2006). *N,N'-Ethylenebisstearamide* [Data file].
- 5 Ministry of Health, Labour and Welfare., Ministry of the Environment., & National Institute of Technology and Evaluation. (2010). *List of Toxicity Test Reports of 1,2-Bis(stearoylamino)ethane* [Data file]. In Japan Chemicals Collaborative Knowledge database. Retrieved from http://www.safe.nite.go.jp/jcheck/detail.action?cno=110-30-5&mno=2-0831&request_locale=en
- 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
BOD - Biochemical Oxygen Demand CAS - Chemical Abstracts Service
°C - degree Celsius DSL - Domestic Substances List
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 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.