We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
Na-Ethylate Crystals

Use: Chemical

Recommended use: process chemical, Raw material

Manufacturer/supplier:
BASF (Thai) Limited
23rd Floor, Emporium Tower, 622, Sukhumvit 24 Rd.,
Klongton, Klongtoey, Bangkok 10110, THAILAND
Telephone: +66 2624-1999
Telefax number: +66 2664-9254
E-mail address: Thailand-SDS-info@basf.com

Emergency information:
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification according to UN GHS 2009

Classification of the substance and mixture:
Flammable solids: Cat.1
Self-heating substances and mixtures: Cat.1
Acute toxicity: Cat.4 (oral)
Skin corrosion: Cat.1A
Serious eye damage: Cat.1

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H228	Flammable solid.
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Precautionary Statements (Prevention):

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P260	Do not breathe dust/gas/mist/vapours.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P235	Keep cool.
P240	Ground and bond container and receiving equipment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (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.
P310	Immediately call a POISON CENTER or physician.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use … to extinguish.

Precautionary Statements (Storage):

P405	Store locked up.
P407	Maintain air gap between stacks or pallets.
P420	Store separately.
P413	Store bulk masses greater than 1,000 kg/2,205 lbs at temperatures not exceeding 25 °C/77 °F.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.
When finely distributed, self-ignition is possible. The product is under certain conditions capable of dust explosion. Corrodes metals in the presence of water or moisture.

Reacts violently with water. Corrosive to the respiratory tract.

3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

sodium ethanolate
CAS Number: 141-52-6

4. First-Aid Measures

General advice:
Immediately remove contaminated clothing. First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention.

Note to physician:
Symptoms: skin corrosion, Eye irritation, Further symptoms are possible
Hazards: No hazard is expected under intended use and appropriate handling.
Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:
dry powder, Dry sand, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:
water, carbon dioxide

Specific hazards:
Reacts violently with water. May release highly flammable and/or corrosive gases/vapours.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:
Avoid contact with the skin, eyes and clothing.Use breathing apparatus if exposed to vapours/dust/aerosol.

Environmental precautions:
Discharge into the environment must be avoided.

Methods for cleaning up or taking up:
For small amounts: Sweep/shovel up. Correctly dispose of recovered product immediately.
For large amounts: Sweep/shovel up. Correctly dispose of recovered product immediately.

7. Handling and Storage

Handling

Ensure thorough ventilation of stores and work areas. Breathing must be protected when large quantities are decanted without local exhaust ventilation. Protect against moisture. Protect from air. Protect from direct sunlight.

Protection against fire and explosion:
Take precautionary measures against static discharges. Sources of ignition should be kept well clear. Fire extinguishers should be kept handy. Avoid dust formation.

Storage

Segregate from acids and acid forming substances.

Suitable materials for containers: Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401, glass, High density polyethylene (HDPE), Carbon steel (Iron), Stainless steel 1.4541, Stainless steel 1.4571, Alkyd resin lacquer 441
Unsuitable materials for containers: Aluminium, Galvanized carbon steel (Zinc), Lead-plated, Paper/Fibreboard, tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls and personal protection

Components with occupational exposure limits

The mentioned substance is result of gradual decomposition under influence of atmospheric humidity.

ethanol, 64-17-5;

STEL value 1,000 ppm (ACGIHTLV)
TWA value 1,000 ppm (OEL (TH))

sodium hydroxide, 1310-73-2;
CLV 2 mg/m3 (ACGIHTLV)
TWA value 2 mg/m3 (OEL (TH))

Personal protective equipment

Respiratory protection:
Breathing protection if breathable aerosols/dust are formed. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:
Use gauntlets.
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
butyl rubber (butyl) - 0.7 mm coating thickness
fluoroelastomer (FKM) - 0.7 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
Avoid contact with the skin, eyes and clothing. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of dusts.

9. Physical and Chemical Properties

Form:	powder, crystalline
Colour:	white to slightly yellow
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
pH value:	12.8 (7 g/l, 20 °C)
melting point (decomposition):	260 °C Literature data. The substance / product decomposes.

Boiling point:		
	(1,013.25 hPa) The substance / product decomposes therefore not determined.	
decomposition point:	>= 260 °C (1,013 hPa) Literature data.	
Flash point:		
	not applicable, the product is a solid	
Evaporation rate:		
	The product is a non-volatile solid.	
Flammability (solid/gas):	highly flammable solid	(UN Test N.1 (ready combustible solids))
Lower explosion limit:		
	For solids not relevant for classification and labelling.	
Upper explosion limit:		
	For solids not relevant for classification and labelling.	
Ignition temperature:		
	not applicable	
Thermal decomposition:	> 280 °C The indicated value is for inert gas atmosphere.	(DTA)
	> 50 °C Risk of spontaneous ignition when exposed to air.	
Self ignition:	Temperature: > 50 °C	
Self heating ability:	It is a substance capable of spontaneous heating.	(UN Test N.4 (self heating substances))
SADT:	> 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)	
Explosion hazard:	not explosive	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	
Vapour pressure:	0.0000028 hPa (25 °C)	(calculated)
Density:	0.868 g/cm3 (20 °C) Literature data.	
Relative density:		
	No data available.	
Bulk density:	approx. 500 kg/m3 (< 40 °C)	(DIN 53466)

Relative vapour density (air):
The product is a non-volatile solid.

Solubility in water: hydrolyzes, spontaneous decomposition
Hygroscopy: hygroscopic
Solubility (qualitative) solvent(s): alcohols
soluble
Information on: ethanol
Partitioning coefficient n-octanol/water (log Pow): -0.31 (measured)
(25 °C)
Literature data.

:
Because of the n-octanol/water distribution coefficient (log Pow) adsorption is not to be expected. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Surface tension:
Based on chemical structure, surface activity is not to be expected.

Viscosity, dynamic:
Study scientifically not justified.

Viscosity, kinematic:
not applicable, the product is a solid

Particle characteristics

Particle size distribution:	55.0 µm	(D10, ISO 13320-1)
	200.0 µm	(D90, ISO 13320-1)
	110.0 µm	(D50, ISO 13320-1)
Particle size distribution:	fine particles -	

10. Stability and Reactivity

Conditions to avoid:
Avoid humidity. Avoid contact with air.

Thermal decomposition: > 280 °C (DTA)
The indicated value is for inert gas atmosphere.

Thermal decomposition: > 50 °C
Risk of spontaneous ignition when exposed to air.

Substances to avoid:
water, acids

Corrosion to metals: Corrosive effect on:
Aluminium
Corrodes metals in the presence of water or moisture.

Hazardous reactions:
Exothermic reaction. Reacts with water and acids. Reacts with substances which contain active hydrogen. Self heating possible in the presence of air. Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

Hazardous decomposition products:
sodium hydroxide, ethanol

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): 560 mg/kg (OECD Guideline 401)

Acute dermal toxicity

(dermal):Due to the corrosive properties of the substance higher doses cannot be tested. Study does not need to be conducted.

Assessment of acute toxicity

Of moderate toxicity after single ingestion.

Information on: ethanol

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 124.7 mg/l 4 h (BASF-Test)
The vapour was tested.

Symptoms

skin corrosion Eye irritation Further symptoms are possible

Irritation

Assessment of irritating effects:
Corrosive! Damages skin and eyes.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Corrosive. (OECD Guideline 404)

Serious eye damage/irritation:As the product corrodes the skin, it can be expected to have a similar effect on the eyes also.

Respiratory/Skin sensitization

Assessment of sensitization:
As the substance is corrosive, conducting sensitization studies is not feasible.

Germ cell mutagenicity

Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: ethanol
Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity:
The whole of the information assessable provides no indication of a carcinogenic effect.

Information on: ethanol
Assessment of carcinogenicity:
The International Agency for Research on Cancer (IARC) has classified this substance as a Group 1 (known) human carcinogen. The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies suggest a fertility impairing effect with high doses. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Developmental toxicity

Assessment of teratogenicity:
Causes developmental effects in animals at high, maternally toxic doses. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

The available information is not sufficient for the evaluation of specific target organ toxicity.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure to large quantities may affect certain organs. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. After repeated administration the prominent effect is the induction of corrosion.

Aspiration hazard

not applicable

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. The product gives rise to pH shifts. The ecotoxicological effects are solely caused by the pH.

Toxicity to fish:
EC50 (96 h) 12,900 mg/l, Pimephales promelas (Fish test acute, Flow through.)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

Aquatic invertebrates:
LC50 (48 h) 5,012 mg/l, Ceriodaphnia dubia (other, static)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

EC50 (24 h) 857.79 mg/l, Artemia salina (other)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

Aquatic plants:
EC50 (4 d) 275 mg/l (growth rate), Chlorella vulgaris (OECD Guideline 201, static)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

EC10 (4 d) 11.5 mg/l (growth rate), Chlorella vulgaris (OECD Guideline 201, static)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

EC50 (7 d) 4,432 mg/l (other), Lemna gibba (other, static)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

No observed effect concentration (7 d) 280 mg/l (other), Lemna gibba (other, static)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

Microorganisms/Effect on activated sludge:
Toxic limit concentration (16 h) 6,500 mg/l, Pseudomonas putida (other, aquatic)
Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Chronic toxicity to fish:
No observed effect concentration (120 h) 250 mg/l, Brachydanio rerio (OECD Guideline 212, semistatic)
No data available.

Chronic toxicity to aquatic invertebrates:
No observed effect concentration (9 d), 9.6 mg/l, Daphnia magna (Daphnia test chronic, semistatic)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products. Literature data.

Information on: sodium hydroxide
Assessment of aquatic toxicity:
Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible. There is a high probability that the product is not acutely harmful to aquatic organisms.
The effect strongly depends on the pH-value. The data refers to the dissociated form of the substance.

Information on: ethanol
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Information on: sodium hydroxide
Toxicity to fish:
LC50 (96 h) 125 mg/l, Gambusia affinis (other, static)
The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample. Literature data.

Information on: ethanol
Toxicity to fish:
LC50 (96 h) 13,000 mg/l, Salmo gairdneri, syn. O. mykiss (Fish test acute, static)
The details of the toxic effect relate to the nominal concentration. Literature data.

Information on: sodium hydroxide
Aquatic invertebrates:
EC50 (48 h) 40.4 mg/l, Ceriodaphnia sp. (other, static)
Literature data.

Information on: ethanol
Aquatic invertebrates:
LC50 (48 h) 12,340 mg/l, Daphnia magna (Daphnia test acute, static)
The details of the toxic effect relate to the nominal concentration. Literature data.

(48 h) 5,012 mg/l, Ceriodaphnia dubia (Daphnia test acute)
The details of the toxic effect relate to the nominal concentration. Literature data.

Information on: ethanol
Aquatic plants:
EC50 (4 d) 675 mg/l (growth rate), Chlorella vulgaris (Algal growth inhibition test)
The details of the toxic effect relate to the nominal concentration. Literature data.

Information on: ethanol
Microorganisms/Effect on activated sludge:
Toxic limit concentration (16 h) 6,500 mg/l, Pseudomonas putida (other, aquatic)
The details of the toxic effect relate to the nominal concentration. Literature data.

Assessment of terrestrial toxicity:
No data available concerning terrestrial toxicity.

Soil living organisms:
LC50 (48 h) 100 - 1000 µg/cm2, Eisenia foetida (Screening test, filter paper)

Terrestrial plants:
EC50 (6 d) 7,890 - 15,780 mg/l, terrestrial plants (Screening test)
Literature data.

Other terrestrial non-mammals:
No data available.

Mobility

Assessment transport between environmental compartments:
Due to the product characteristics the test is impossible.

Information on: sodium hydroxide
Assessment transport between environmental compartments:
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.
Study scientifically not justified.

Information on: ethanol
Assessment transport between environmental compartments:
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Persistence and degradability

Elimination information:
84 % BOD of COD (20 d) (other) (aerobic, domestic sewage, non-adapted) Readily biodegradable (according to OECD criteria).
Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Information on: ethanol
Assessment biodegradation and elimination (H2O):
Readily biodegradable (according to OECD criteria).

Information on: ethanol
Elimination information:
89 % BOD of the ThOD (14 d) (OECD 301C; ISO 9408; 92/69/EWG, C.4-F) (aerobic, Inoculum conforming to MITI requirements (OECD 301C))

Literature data.

84 % BOD of the ThOD (20 d) (other) (aerobic, activated sludge, domestic, non-adapted)
Literature data.

Assessment of stability in water:
In contact with water the substance will hydrolyse rapidly.

Information on Stability in Water (Hydrolysis):
In contact with water the substance will hydrolyse rapidly.

Bioaccumulation potential

Assessment bioaccumulation potential:
Accumulation in organisms is not to be expected.
The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Bioaccumulation potential:
No data available.

Information on: ethanol
Assessment bioaccumulation potential:
No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Other adverse effects

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

Additional information

Other ecotoxicological advice:
Do not release untreated into natural waters. Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The local regulations on waste-water treatment must be followed.

13. Disposal Considerations

Hydrolyze product with excess of water under usage of the personal protection equipment and dispose of in accordance with local authority regulations.
Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Domestic transport:

UN number or ID number:	UN 3095
UN proper shipping name:	CORROSIVE SOLID, SELF-HEATING, N.O.S. (SODIUM ETHYLATE/SODIUM ETHANOLATE)
Transport hazard class(es):	8, 4.2
Packing group:	I
Environmental hazards:	no
Special precautions for user:	None known

Sea transport
IMDG

UN number or ID number:	UN 3095
UN proper shipping name:	CORROSIVE SOLID, SELF-HEATING, N.O.S. (SODIUM ETHYLATE/SODIUM ETHANOLATE)
Transport hazard class(es):	8, 4.2
Packing group:	I
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-A; S-N

Air transport
IATA/ICAO

UN number or ID number:	UN 3095
UN proper shipping name:	CORROSIVE SOLID, SELF-HEATING, N.O.S. (SODIUM ETHYLATE/SODIUM ETHANOLATE)
Transport hazard class(es):	8, 4.2
Packing group:	I
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
Specific national features of transport regulations must be observed. They are to be found in the shipping documents.

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

chemical industry

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.