We create chemistry

Safety Data Sheet
Na-Ethylate Crystals

1. Identification

Product identifier used on the label

Na-Ethylate Crystals

Recommended use of the chemical and restriction on use

Recommended use*: Chemical
Recommended use*: process chemical; Raw material
Unsuitable for use: Not intended for sale to or use by the general public.

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF Canada Inc.
5025 Creekbank Road
Building A, Floor 2
Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Molecular formula:	CH(3)CH(2)ONa
Chemical family:	alcohol, sodium salt
Synonyms:	Sodium Ethoxide

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Flam. Sol.	1	Flammable solids

Self-heat.	1	Self-heating substances and mixtures
Met. Corr.	1	Corrosive to metals
Acute Tox.	4 (oral)	Acute toxicity
Skin Corr.	1A	Skin corrosion
Eye Dam.	1	Serious eye damage
Combustible Dust	Combustible Dust (1)	Combustible Dust

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H228	Flammable solid.
H290	May be corrosive to metals.
H251	Self-heating: may catch fire. May form combustible dust concentration in air.
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 or mist.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P235	Keep cool.
P240	Ground and bond container and receiving equipment.
P264	Wash contaminated body parts thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P234	Keep only in original packaging.

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.
P390	Absorb spillage to prevent material damage.

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.
P406	Store in a corrosion-resistant container with a resistant inner liner.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

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.

Labeling of special preparations (GHS):
Reacts violently with water.
Corrosive to the respiratory tract.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

sodium ethanolate
CAS Number: 141-52-6
Content (W/W): 75.0 - <= 100.0%
Synonym: Ethanol, sodium salt; Sodium ethoxide

Sodium Hydroxide
CAS Number: 1310-73-2
Content (W/W): 0.3 - < 3.0%
Synonym: Sodium hydroxide; Caustic soda

Ethanol
CAS Number: 64-17-5
Content (W/W): 0.0 - <= 2.0%
Synonym: Ethanol; Ethyl alcohol

4. First-Aid Measures

Description of 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).

Avoid contact with the skin, eyes and clothing. Immediately remove contaminated clothing.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:
Wash affected areas with water while removing contaminated clothing. Immediate medical attention required.

If in eyes:
Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:
Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: skin corrosion, Eye irritation, Further symptoms are possible
Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Note to physician
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

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
Reacts violently with water. May release highly flammable and/or corrosive gases/vapours.

Advice for fire-fighters
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.

Impact Sensitivity:
Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

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

Environmental precautions
Methods and material for containment and cleaning 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

Precautions for safe 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.

Conditions for safe storage, including any incompatibilities

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/Personal Protection

Components with occupational exposure limits

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

Ethanol	ACGIH, US:	STEL value 1,000 ppm ;
	OSHA Z1:	PEL 1,000 ppm 1,900 mg/m3 ;
Sodium Hydroxide	ACGIH, US:	CLV 2 mg/m3 ;
	OSHA Z1:	PEL 2 mg/m3 ;

Personal protective equipment

Respiratory protection:
Breathing protection if dusts are formed. Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:
Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, fluoroelastomer (Viton), butyl rubber, Consult with glove manufacturer for testing data., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Avoid inhalation of dust. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of dusts.

9. Physical and Chemical Properties

Form:	powder, crystalline	
Odour:	odourless	
Odour threshold:	not applicable, odour not perceivable	
Colour:	white to slightly yellow	
pH value:	12.8 (7 g/l, 20 °C)	
melting point (decomposition):	260 °C The substance / product decomposes. Literature data.	
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	
Flammability:	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.	
Autoignition:	not applicable	
SADT:	> 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)	
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)
Vapour density:	The product is a non-volatile solid.	
Information on: Ethanol		
Partitioning coefficient n-octanol/water (log Pow):	-0.31 (25 °C) Literature data.	(measured)

Self-ignition temperature:	> 50 °C	
Thermal decomposition:	> 280 °C (DTA) The indicated value is for inert gas atmosphere. > 50 °C Risk of spontaneous ignition when exposed to air.	
Viscosity, dynamic:	Study scientifically not justified.	
Viscosity, kinematic:	not applicable, the product is a solid	
Particle size:	D10 55.0 µm D90 200.0 µm D50 110.0 µm fine particles	(ISO 13320-1) (ISO 13320-1) (ISO 13320-1)
Solubility in water:	hydrolyzes, spontaneous decomposition	
Solubility (qualitative):	soluble solvent(s): alcohols,	
Evaporation rate:	The product is a non-volatile solid.	

10. Stability and Reactivity

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

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

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
	Method:	Flammability (contact with water)

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of 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.

Conditions to avoid
Avoid humidity. Avoid contact with air.

Incompatible materials
water, acids

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: Sodium Hydroxide, Ethanol

Thermal decomposition:
> 280 °C (DTA)
The indicated value is for inert gas atmosphere.
> 50 °C
Risk of spontaneous ignition when exposed to air.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Of moderate toxicity after single ingestion.

Oral
Type of value: LD50
Species: rat
Value: 560 mg/kg (OECD Guideline 401)

Inhalation

Information on: Ethanol
Type of value: LC50
Species: rat
Value: 124.7 mg/l (BASF-Test)
Exposure time: 4 h
The vapour was tested.

Dermal
Due to the corrosive properties of the substance higher doses cannot be tested. Study does not need to be conducted.

Assessment other acute effects
Assessment of STOT single:
The available information is not sufficient for the evaluation of specific target organ toxicity.

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

Skin

Species: rabbit
Result: Corrosive.
Method: OECD Guideline 404

Eye
As the product corrodes the skin, it can be expected to have a similar effect on the eyes also.

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

Aspiration Hazard
not applicable

Chronic Toxicity/Effects

Repeated dose toxicity
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.

Genetic toxicity
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.

Teratogenicity
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.

12. Ecological Information

Toxicity

Aquatic toxicity
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.

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.

Aquatic toxicity

Information on: Sodium Hydroxide
Assessment of aquatic toxicity:
Depending on local conditions and existing concentrations, disturbances in the nitrification 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.

Toxicity to fish

Information on: Sodium Hydroxide
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
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.

Aquatic invertebrates

Information on: Sodium Hydroxide
EC50 (48 h) 40.4 mg/l, Ceriodaphnia sp. (other, static)
Literature data.

Information on: Ethanol
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.

Aquatic plants

Information on: Ethanol
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.

Assessment of terrestrial toxicity
No toxic effects have been observed in studies with terrestric plants.

Soil living organisms

Toxicity to soil dwelling organisms:
LC50 (48 h) 100 - 1000 µg/cm2, Eisenia foetida (Screening test, filter paper)

Toxicity to terrestrial plants

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

Other terrestrial non-mammals
No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
other aquatic
bacterium/Toxic limit concentration (16 h): 6,500 mg/l
Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Information on: Ethanol
other aquatic
bacterium/Toxic limit concentration (16 h): 6,500 mg/l
The details of the toxic effect relate to the nominal concentration. Literature data.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
The product is unstable in water. The elimination data also refer to products of hydrolysis. The organic component of the product is biodegradable.

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.

Assessment biodegradation and elimination (H2O)

Information on: Ethanol

Readily biodegradable (according to OECD criteria).

Elimination information

Information on: Ethanol
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.

Bioaccumulative 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.

Assessment bioaccumulation potential

Information on: Ethanol

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Mobility in soil

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

Information on: Sodium Hydroxide

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

The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Additional information

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

13. Disposal considerations

Waste disposal of substance:
Incinerate or dispose of in a licensed facility. Dispose of in accordance with national, state and local regulations.

Container disposal:
Dispose of in accordance with national, state and local regulations.

14. Transport Information

Land transport
TDG

Hazard class:	8
Packing group:	I
ID number:	UN 3095
Hazard label:	8, 4.2
Proper shipping name:	CORROSIVE SOLID, SELF-HEATING, N.O.S. (contains SODIUM ETHYLATE/SODIUM ETHANOLATE)

Sea transport
IMDG

Hazard class:	8
Packing group:	I
ID number:	UN 3095
Hazard label:	8, 4.2
Marine pollutant:	NO
Proper shipping name:	CORROSIVE SOLID, SELF-HEATING, N.O.S. (contains SODIUM ETHYLATE/SODIUM ETHANOLATE)

Air transport
IATA/ICAO

Hazard class:	8
Packing group:	I
ID number:	UN 3095
Hazard label:	8, 4.2
Proper shipping name:	CORROSIVE SOLID, SELF-HEATING, N.O.S. (contains SODIUM ETHYLATE/SODIUM ETHANOLATE)

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

15. Regulatory Information

Federal Regulations

Registration status:
Chemical DSL, CA

DSL listed and/or otherwise compliant.

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Flam. Sol.	1	Flammable solids
Self-heat.	1	Self-heating substances and mixtures
Acute Tox.	4 (oral)	Acute toxicity
Skin Corr.	1A	Skin corrosion

Eye Dam.	1	Serious eye damage

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2025/01/08

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

END OF DATA SHEET