We create chemistry

Safety Data Sheet
Na-Methylate Crystals

1. Identification

Product identifier used on the label

Na-Methylate Crystals

Recommended use of the chemical and restriction on use

Recommended use*: industrial chemicals
Recommended use*: initial product for chemical syntheses; process chemical
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 CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

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

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Sol.	1	Flammable solids
Self-heat.	1	Self-heating substances and mixtures

Acute Tox.	4 (oral)	Acute toxicity
Skin Corr./Irrit.	1A	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

Label elements

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.
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/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.

According to Regulation (EC) No 1272/2008 [CLP]

Labeling of special preparations (GHS):
Reacts violently with water.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Methanol
CAS Number: 67-56-1
Content (W/W): >= 0.0 - < 3.0%
Synonym: Methanol; Methyl alcohol

sodium methanolate
CAS Number: 124-41-4
Content (W/W): >= 75.0 - <= 100.0%
Synonym: Methanol, sodium salt; Sodium methanolate

Sodium Hydroxide
CAS Number: 1310-73-2
Content (W/W): >= 0.0 - < 3.0%
Synonym: Sodium hydroxide; Caustic soda

4. First-Aid Measures

Description of first aid measures

General advice:
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). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

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

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

If swallowed:
Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention. Administer 50 ml of pure ethanol in a drinkable concentration. Seek medical attention.

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. 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: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

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. See SDS section 7 - Handling and storage.

sodium oxides, organic vapours, corrosive gases/vapours, carbon oxides
Generation of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

sodium oxides, organic vapours, corrosive gases/vapours, carbon oxides
Reacts violently with water. Generation of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

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

Further accidental release measures:
Avoid wetting. Reacts violently with water.

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

Environmental precautions
Do not allow to enter soil, waterways or waste water channels.

Substance/product is RCRA hazardous due to its properties.

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
Use with local exhaust ventilation. Avoid dust formation. Protect against moisture. Protect from air. Protect from direct sunlight. Containers should be opened carefully in well-ventilated areas to avoid static discharge.

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. Dust can form an explosive mixture with air.

Conditions for safe storage, including any incompatibilities
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

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Keep under nitrogen.

Storage stability:
Protect against moisture.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

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

Methanol	ACGIH, US:	TWA value 200 ppm ;
	ACGIH, US:	STEL value 250 ppm ;
	OSHA Z1:	PEL 200 ppm 260 mg/m3 ;
	ACGIH, US:	Skin Designation ; Danger of cutaneous absorption
	ACGIH, US:	Skin Designation ; Danger of cutaneous absorption
	NIO ID, US:	IDLH 6,000 ppm ; IDLH values based on the 1994 Revised Criteria
	NIO ID, US:	LEL 6.0 % ;
Sodium Hydroxide	ACGIH, US:	CLV 2 mg/m3 ;
	OSHA Z1:	PEL 2 mg/m3 ;

Advice on system design:
Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:
Wear appropriate certified respirator when exposure limits may be exceeded. Wear a NIOSH-certified (or equivalent) particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:
Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, butyl rubber, fluoroelastomer (Viton), 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 contact with the skin, eyes and clothing. Avoid inhalation of dusts. Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. 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 determined due to potential health hazard by inhalation.
Colour:	colourless
pH value:	12.8 (10 g/l, 20 °C) Literature data.

melting point (decomposition):	> 350 °C The substance / product decomposes therefore not determined.	(Directive 92/69/EEC, A.1)
Boiling point:	> 350 °C (1,013.25 hPa) The substance / product decomposes therefore not determined.	(Directive 92/69/EEC, A.2)
Flash point:	not applicable Study scientifically not justified.	
Flammability:	Flammable solid. Highly flammable.	(Directive 84/449/EEC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Vapour pressure:	< 0.000001 hPa (25 °C)	(calculated)
Density:	1.3 g/cm3 (20 °C) Literature data.	
Relative density:	No data available. No data available.	
Bulk density:	500 - 600 kg/m3 (< 40 °C)	(DIN 53466)
Vapour density:	The product is a non-volatile solid.	
Partitioning coefficient n-octanol/water (log Pow):	-0.72 (25 °C)	(calculated)
Information on: Methanol		
Partitioning coefficient n-octanol/water (log Pow):	-0.77 (20 °C) Literature data.	(measured)

Self-ignition temperature:	not self-igniting	
	> 25 - < 50 °C No self ignition was observed up to the specified temperature.	(Directive 92/69/EEC, A.16)
Thermal decomposition:	> 280 °C (DTA) Thermal decomposition above the indicated temperature is possible. The indicated value is for inert gas atmosphere. > 50 °C (VDI 2263, sheet 1, 1.4.1 (May 1990)) Risk of spontaneous ignition when exposed to air.	
Viscosity, dynamic:	Study technically not feasible. Study technically not feasible.	
Viscosity, kinematic:	Study technically not feasible.	
Particle size:	D10 3.6 µm D90 135.7 µm D50 69.9 µm fine particles	(ISO 13320-1) (ISO 13320-1) (ISO 13320-1)
Solubility in water:	Study scientifically not justified.	
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:
Corrodes metals in the presence of water or moisture.

Oxidizing properties:
not fire-propagating

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
	Method:	Manual of tests and criteria. Test N.5 (United Nations Recommendations on the Transport of Dangerous Goods).

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. Accumulation of fine dust may entail the risk of a dust explosion in the presence of air. Self heating possible in the presence of air.

Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid moisture. Avoid electro-static charge. Avoid heat.

Incompatible materials
water, acids

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: Methanol, Sodium Hydroxide

Thermal decomposition:
> 280 °C (DTA)
Thermal decomposition above the indicated temperature is possible. The indicated value is for inert gas atmosphere.
> 50 °C (VDI 2263, sheet 1, 1.4.1 (May 1990))
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. The toxicity of the product is based on its corrosivity.

Information on: sodium methanolate
Assessment of acute toxicity:Of moderate toxicity after single ingestion. The toxicity of the product is based on its corrosivity.

Inhalation
Study does not need to be conducted.

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg (BASF-Test)
An aqueous solution was tested.
No mortality was observed.

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

Information on: sodium methanolate
Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin
Species: rabbit
Result: Corrosive.
Method: similar to OECD guideline 404

Eye
Species: rabbit
Result: irreversible damage
Method: BASF-Test

Sensitization
Assessment of sensitization: As the substance is corrosive, conducting sensitization studies is not feasible. The chemical structure does not suggest a sensitizing effect.

Aspiration Hazard
Harmful if swallowed.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Study does not need to be conducted. The chemical structure does not suggest a specific alert of toxicity on target organs after repeated exposure.

Information on: Methanol
Assessment of repeated dose toxicity: The substance may cause blindness after repeated ingestion. The substance may cause blindness after repeated inhalation.

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 fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity
Assessment of carcinogenicity: Study does not need to be conducted. The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity
Assessment of reproduction toxicity: Study does not need to be conducted. The chemical structure does not suggest a specific alert for such an effect.

Teratogenicity

Information on: ethylene glycol
Assessment of teratogenicity: Developmental toxicity was observed after oral ingestion of high doses in studies with rats and mice, but this effect was not seen in a study with rabbits. Mechanistic studies show that the rabbit is the relevant species for the classification for human health. As such, and since ethylene glycol is not a developmental toxicant in the rabbit, no classification is warranted.
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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.

Toxicity to fish
LC50 (96 h) 15,400 mg/l, Lepomis macrochirus (Fish test acute, Flow through.)
Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Aquatic invertebrates
EC50 (96 h) 18,260 mg/l, Daphnia magna (DIN 38412 Part 11, semistatic)
Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Aquatic plants
EC50 (96 h) approx. 22,000 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
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 (200 h) 7,900 mg/l, Oryzias latipes (static)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

No observed effect concentration (30 d) 450 mg/l, Pimephales promelas (calculated)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Chronic toxicity to aquatic invertebrates
No observed effect concentration (21 d) 208 mg/l, Daphnia magna (calculated)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

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: Methanol
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: Methanol
LC50 (96 h) 15,400 mg/l, Lepomis macrochirus (other, Flow through.)

Aquatic invertebrates

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

Information on: Methanol
EC50 (48 h) 18,260 mg/l, Daphnia magna (OECD Guideline 202, part 1, semistatic)

Aquatic plants

Information on: Methanol
EC50 (96 h) approx. 22,000 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static)

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

Soil living organisms

Toxicity to soil dwelling organisms:
No observed effect concentration (63 d) 10,000 mg/kg, Eisenia foetida (OECD Guideline 222, artificial soil)
The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to terrestrial plants

EC50 41,000 mg/l, Lactuca sativa
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

No observed effect concentration 1,555 mg/kg, terrestrial plants
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other terrestrial non-mammals
No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 static
activated sludge/EC50 (3 h): > 1,000 mg/l
Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Information on: Methanol
OECD Guideline 209 aquatic
activated sludge of a predominantly domestic sewage/EC50 (3 h): > 1,000 mg/l
Inhibition of nitrification aquatic
Bacteria/EC50 (24 h): 880 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Readily biodegradable (according to OECD criteria).

Elimination information

90 - 100 % BOD of the ThOD (20 d) (aerobic, activated sludge, domestic, non-adapted)
Literature data. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment biodegradation and elimination (H2O)

Information on: Methanol

Readily biodegradable (according to OECD criteria).

Elimination information

Information on: Methanol
95 % BOD of the ThOD (20 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable (according to OECD criteria).

Assessment of stability in water
In contact with water the substance will hydrolyse rapidly.
Study technically not feasible.

Bioaccumulative potential

Assessment bioaccumulation potential
Does not significantly accumulate in organisms.

Bioaccumulation potential
Bioconcentration factor: 4.5 (72 h), Cyprinus carpio (measured)
The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Assessment bioaccumulation potential

Information on: Sodium Hydroxide

Accumulation in organisms is not to be expected.

Information on: Methanol

Significant accumulation in organisms is not to be expected.

Mobility in soil

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.

Additional information

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

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

Waste disposal of substance:
Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with national, state and local regulations. Dispose of in a RCRA-licensed facility.

Container disposal:
Do not reuse containers without commercial reconditioning. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA: D001

14. Transport Information

Land transport
USDOT

Hazard class:	4.2
Packing group:	II
ID number:	UN 1431
Hazard label:	4.2, 8
Proper shipping name:	SODIUM METHYLATE

Sea transport
IMDG

Hazard class:	4.2
Packing group:	II
ID number:	UN 1431
Hazard label:	4.2, 8
Marine pollutant:	NO
Proper shipping name:	SODIUM METHYLATE

Air transport
IATA/ICAO

Hazard class:	4.2
Packing group:	II
ID number:	UN 1431
Hazard label:	4.2, 8
Proper shipping name:	SODIUM METHYLATE

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 TSCA, US

All substances are TSCA listed and active.

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

CERCLA RQ	CAS Number	Chemical name
1000 LBS	124-41-4	sodium methanolate

State regulations

State RTK	CAS Number	Chemical name
NJ	124-41-4	sodium methanolate
	1310-73-2	Sodium Hydroxide
	67-56-1	Methanol
PA	67-56-1	Methanol
	124-41-4	sodium methanolate
	1310-73-2	Sodium Hydroxide

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including METHANOL, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:
Health: 3 Fire: 3 Reactivity: 2 Special: -W-

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2025/01/07

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.