

Safety Data Sheet

Na-Methylate Crystals

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Version: 5.0

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(30036694/SDS_GEN_CA/EN)

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 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)ONa
Chemical family: alcohol, sodium salt
Synonyms: Sodium Methoxide

2. Hazards Identification

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

Classification of the product

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| | | |
|-------------------|----------|--------------------------------------|
| 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./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. |
| H290 | May be corrosive to metals. |
| 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. |
| 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): Remove or 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, ... to extinguish. |
| P390 | Absorb spillage to prevent material damage. |

Precautionary Statements (Storage):

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|--------------------------------------|--|
| 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.

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

3. Composition / Information on Ingredients

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

Methanol

CAS Number: 67-56-1
Content (W/W): ≥ 0.0 - $< 3.0\%$
Synonym: Methyl alcohol

sodium methanolate

CAS Number: 124-41-4
Content (W/W): ≥ 75.0 - $\leq 100.0\%$
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:

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.

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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:

Administer 50 ml of pure ethanol in a drinkable concentration. 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. See SDS section 7 - Handling and storage.

sodium oxides, organic vapours, corrosive gases/vapours, carbon oxides

Evolution 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. Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

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.

6. Accidental release measures

Further accidental release measures:

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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.

Environmental precautions

Discharge into the environment must be avoided.

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

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.

| | | |
|------------------|------------|---|
| 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 |
| 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.

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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.

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.

Chemical resistant protective gloves, Suitable materials, rubber, plastic

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. Wash soiled clothing immediately.

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 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. | |

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| | | |
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| Upper explosion limit: | For solids not relevant for classification and labelling. | |
| Vapour pressure: | < 0.000001 hPa (25 °C) | (calculated) |
| Density: | 1.3 g/cm ³ (20 °C) | |
| Relative density: | Literature data. No data available. | |
| Bulk density: | 500 - 600 kg/m ³ (< 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) |
| <i>Information on: Methanol</i> | | |
| Partitioning coefficient n-octanol/water (log Pow): | -0.77 (20 °C) | (measured) |
| | Literature data. | |
| ----- | | |
| Self-ignition temperature: | not self-igniting > 25 - < 50 °C | (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) Risk of spontaneous ignition when exposed to air. | |
| Viscosity, dynamic: | Study technically not feasible. | |
| Viscosity, kinematic: | Study technically not feasible. | |
| 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:

Method:

Forms no flammable gases in the presence of water.

Manual of tests and criteria. Test N.5 (United Nations Recommendations on the Transport of Dangerous Goods).

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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 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)

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: The toxicity of the product is based on its corrosivity.

Oral

Type of value: LD50

Species: rat (male/female)

Value: 1,687 mg/kg (OECD Guideline 401)

An aqueous solution was tested.

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.

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Skin

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

Eye

Species: rabbit
Result: Risk of serious damage to eyes.
Method: BASF-Test

Sensitization

Assessment of sensitization: Study does not need to be conducted.

Aspiration Hazard

Harmful if swallowed.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Study does not need to be conducted.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria.

Carcinogenicity

Assessment of carcinogenicity: Study does not need to be conducted.

Reproductive toxicity

Assessment of reproduction toxicity: Study does not need to be conducted.

Teratogenicity

Assessment of teratogenicity: Study does not need to be conducted.

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 (48 h) > 10,000 mg/l, *Daphnia magna* (DIN 38412 Part 11, static)

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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.

Chronic toxicity to aquatic invertebrates

Study scientifically not justified.

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.

Assessment of terrestrial toxicity

Study scientifically not justified.

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.

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.

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Assessment biodegradation and elimination (H₂O)

Information on: Methanol

Readily biodegradable (according to OECD criteria).

Assessment of stability in water

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.

Incinerate or dispose of in a licensed facility. Observe all local regulations.

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Container disposal:

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

14. Transport Information

Land transport

TDG

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 DSL, CA released / listed

NFPA Hazard codes:

Health: 3 Fire: 3 Reactivity: 1 Special:

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 |
| Met. Corr. | 1 | Corrosive to metals |

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

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/10/17

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