We create chemistry

Safety data sheet

BASF Safety data sheet
Date / Revised: 01.01.2024 Version: 9.0
Product: **Na-Methylate Crystals**

(30036694/SDS_GEN_AU/EN)
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1. Substance/preparation and manufacturer/supplier identification

Product name:
Na-Methylate Crystals

Use: industrial chemicals

Recommended use: initial product for chemical syntheses, process chemical

Manufacturer/supplier:
BASF Australia Limited (ABN 62 008 437 867)
Level 23, 40 City Road, Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600

Emergency information:
BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

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

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.

Reacts violently with water.

3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

sodium methanolate (Content (W/W): 100 %)
CAS Number: 124-41-4

4. 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.

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. Administer 50 ml of pure ethanol in a drinkable concentration. 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: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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. See SDS section 7 - Handling and storage.

Specific hazards:
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.

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.Use personal protective clothing.

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

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. Handle in protective atmosphere.

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

8. Exposure controls and personal protection

Components with occupational exposure limits

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

methanol, 67-56-1;
TWA value 200 ppm (ACGIHTLV)
STEL value 250 ppm (ACGIHTLV)
Skin Designation (AU NOEL)
The substance can be absorbed through the skin.
TWA value 262 mg/m3 ; 200 ppm (AU NOEL)
STEL value 328 mg/m3 ; 250 ppm (AU NOEL)
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption

sodium hydroxide, 1310-73-2;
CLV 2 mg/m3 (ACGIHTLV)
Peak limitation 2 mg/m3 (AU NOEL)
Peak limitation 2 mg/m3 (OEL (AU))

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:	colourless	
Odour:	odourless	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
pH value:	12.8 (10 g/l, 20 °C) Literature data.	
pKA:	15.17 (20 °C)	(calculated)
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.	
Evaporation rate:	The product is a non-volatile solid.	
Flammability (solid/gas):	Flammable solid.	(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.	
Thermal decomposition:	> 280 °C Thermal decomposition above the indicated temperature is possible. The indicated value is for inert gas atmosphere.	(DTA)
	> 50 °C Risk of spontaneous ignition when exposed to air.	(VDI 2263, sheet 1, 1.4.1 (May 1990))
Self ignition:	not self-igniting	Test type: Spontaneous self-ignition at room-temperature.

	Temperature: > 25 - < 50 °C Pressure: 1,013 hPa No self ignition was observed up to the specified temperature.	Test type: Self-ignition at high temperatures. (Method: Directive 92/69/EEC, A.16)
Self heating ability:	It is a substance capable of spontaneous heating.	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	< 0.000001 hPa (25 °C)	(calculated)
Density:	1.3 g/cm3 (20 °C) Literature data.	
Relative density:	No data available.	
Bulk density:	500 - 600 kg/m3 (< 40 °C)	(DIN 53466)
Relative vapour density (air):	The product is a non-volatile solid.	
Solubility in water:	Study scientifically not justified.	
Hygroscopy:	hygroscopic	
Solubility (qualitative) solvent(s):	alcohols soluble	
Partitioning coefficient n-octanol/water (log Pow):	-0.72 (25 °C; pH value: < 13)	(calculated)
Information on: methanol		
Partitioning coefficient n-octanol/water (log Pow):	-0.77 (20 °C) Literature data.	(measured)

Adsorption/water - soil:	KOC: 1 The product has not been tested. The statement has been derived from the properties of the hydrolysis products.	(calculated)
Surface tension:	Based on chemical structure, surface activity is not to be expected.	
Viscosity, dynamic:	Study technically not feasible.	
	Study technically not feasible.	
Viscosity, kinematic:	Study technically not feasible.	

10. Stability and Reactivity

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

Thermal decomposition:	> 280 °C (DTA) Thermal decomposition above the indicated temperature is possible. The indicated value is for inert gas atmosphere.
Thermal decomposition:	> 50 °C (VDI 2263, sheet 1, 1.4.1 (May 1990)) Risk of spontaneous ignition when exposed to air.

Substances to avoid:
water, acids

Corrosion to metals: 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. 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.

Hazardous decomposition products:
methanol, sodium hydroxide

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

11. Toxicological Information

Routes of exposure

Acute inhalation toxicity

Experimental/calculated data:
(by inhalation):Study does not need to be conducted.

Acute dermal toxicity

LD50 rat (dermal): > 2,000 mg/kg (BASF-Test)
No mortality was observed. An aqueous solution was tested.

Assessment of acute toxicity

Of moderate toxicity after single ingestion. The toxicity of the product is based on its corrosivity.

Information on: methanol

Assessment of acute toxicity

Of high toxicity after single ingestion. Of high toxicity after short-term inhalation. Of high toxicity after short-term skin contact.

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. (similar to OECD guideline 404)

Serious eye damage/irritation rabbit: irreversible damage (BASF-Test)

Respiratory/Skin sensitization

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

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 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.

Developmental toxicity

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

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

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.

Aspiration hazard

Harmful if swallowed.

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.

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.

Microorganisms/Effect on activated sludge:
EC50 (3 h) > 1,000 mg/l, activated sludge (OECD Guideline 209, 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.

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: 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.
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: methanol
Toxicity to fish:
LC50 (96 h) 15,400 mg/l, Lepomis macrochirus (other, Flow through.)

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

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

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

Information on: methanol
Microorganisms/Effect on activated sludge:
EC50 (3 h) > 1,000 mg/l, (OECD Guideline 209, aquatic)

EC50 (24 h) 880 mg/l, Nitrosomonas sp. (Inhibition of nitrification, aquatic)

Assessment of terrestrial toxicity:

Soil living 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.

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, 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.

Mobility

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:
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.

Information on: methanol

Information on: methanol
Elimination information:
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.

Bioaccumulation 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.

Information on: sodium hydroxide
Assessment bioaccumulation potential:
Accumulation in organisms is not to be expected.

Information on: methanol
Assessment bioaccumulation potential:
Significant accumulation in organisms is not to be expected.

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 1431
UN proper shipping name:	SODIUM METHYLATE
Transport hazard class(es):	4.2, 8
Packing group:	II
Environmental hazards:	no

Special precautions for user:

Further information
Hazchem Code:1W
IERG Number:26

Sea transport

IMDG

UN number or ID number:	UN 1431
UN proper shipping name:	SODIUM METHYLATE
Transport hazard class(es):	4.2, 8
Packing group:	II
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-A; S-L

Air transport
IATA/ICAO

UN number or ID number:	UN 1431
UN proper shipping name:	SODIUM METHYLATE
Transport hazard class(es):	4.2, 8
Packing group:	II
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	

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.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 5

Registration status:

AICIS, AU

Listed in AIIC.

16. Other Information

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.