

Safety Data Sheet

K-Methylate Crystals

Revision date : 2014/06/11

Version: 1.0

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(30,036,705/SDS_GEN_CA/EN)

1. Product and Company Identification

Company

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

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: (800) 454-COPE (2673)

Molecular formula:	CH3OK
Chemical family:	alcohol, potassium salt
Synonyms:	Potassium Methylate Use: chemical

2. Hazards Identification

Emergency overview

DANGER:
FLAMMABLE SOLID.
CORROSIVE.
REACTS VIOLENTLY WITH WATER.
Self-heating: may catch fire.
Corrosive to skin and/or eyes.
Harmful if swallowed.

State of matter: solid
Colour: white to light yellow
Odour: odourless

Potential health effects**Acute toxicity:**

The toxicity of the product is based on its corrosivity.

Irritation / corrosion:

Corrosive! Damages skin and eyes.

The break through time determined in the in-vitro membrane barrier test indicates that the test substance is expected to cause skin necrosis in vivo within 14 days after a 1-hour exposure.

Sensitization:

No data available. The chemical structure does not suggest a sensitizing effect.

Chronic toxicity:

Carcinogenicity: Study does not need to be conducted.

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Repeated dose toxicity: Study does not need to be conducted.

Reproductive toxicity: Study does not need to be conducted.

Teratogenicity: Study does not need to be conducted.

Genotoxicity: 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.

Signs and symptoms of overexposure:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., skin corrosion, irritates the eyes and respiratory tract, Further symptoms are possible
No hazard is expected under intended use and appropriate handling.

Potential environmental effects

Aquatic toxicity:

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.

Terrestrial toxicity:

Study scientifically not justified.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Hazardous ingredients</u>
865-33-8	>= 60.0 - <= 100.0 %	potassium methanolate
67-56-1	>= 1.0 - <= 5.0 %	methanol
1310-58-3	>= 0.5 - <= 1.5 %	Potassium hydroxide

4. First-Aid Measures

General advice:

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:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.
Administer 50 ml of pure ethanol in a drinkable concentration. Seek medical attention.

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

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5. Fire-Fighting Measures

Flash point:		Study technically not feasible.
Lower explosion limit:		For solids not relevant for classification and labelling.
Upper explosion limit:		For solids not relevant for classification and labelling.
Flammability:	Highly flammable.	(Directive 84/449/EEC, A.10)
Self-ignition temperature:	70 °C	(Directive 92/69/EEC, A.16) not self-igniting

Suitable extinguishing media:

dry powder, Dry sand, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:

water, carbon dioxide

Hazards during fire-fighting:

corrosive gases/vapours

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

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

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

6. Accidental release measures

Personal precautions:

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

Environmental precautions:

Discharge into the environment must be avoided.

Cleanup:

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Handling

General advice:

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:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid dust formation.

Storage

General advice:

Keep container tightly closed in a cool, well-ventilated place.

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8. Exposure Controls and Personal Protection

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

Protective coverall and/or impermeable apron and boots as necessary.

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. Do not breathe dust. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Avoid inhalation of dusts. Store work clothing separately.

9. Physical and Chemical Properties

Form:	powder, crystalline	
Odour:	odourless	
Odour threshold:	No data available.	
Colour:	white to light yellow	
pH value:	12.8	(7 g/l, 20 °C)
Melting point:	359 - 400 °C	(1,013 hPa) (Directive 92/69/EEC, A.1) The substance / product decomposes.
decomposition point:	384 - 430 °C	(1,013 hPa) (Directive 92/69/EEC, A.1)
Boiling point:		(1,013 hPa) (Directive 92/69/EEC, A.2) Cannot be distilled without decomposition at normal pressure.
Vapour pressure:	< 0.000001 hPa	(25 °C) (calculated)
Density:	1.7 g/cm ³	(20 °C) Literature data.
Relative density:	1.7	(20 °C) Literature data.
Bulk density:	approx. 900 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.

Viscosity, dynamic:		Study technically not feasible.
Particle size:	44 µm	(measured)
Solubility in water:		Study scientifically not justified.
Solubility (qualitative):	soluble	
	solvent(s): alcohols,	

10. Stability and Reactivity

Conditions to avoid:

Avoid contact with air.

Substances to avoid:

water, acids

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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.

Decomposition products:

Hazardous decomposition products: Potassium hydroxide, methanol

Thermal decomposition:

> 300 °C (DTA)

The indicated value is for inert gas atmosphere.

> 50 °C

Risk of spontaneous ignition when exposed to air.

Corrosion to metals:

Corrosive effect on metals.

11. Toxicological information

Acute toxicity

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.

Oral:

Type of value: ATE

Species: rat

Value: 1,202 mg/kg (OECD Guideline 401)

See user defined text.

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: potassium methanolate

Type of value: LD50

Species: rat

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

An aqueous solution was tested.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: methanol

Type of value: LD50

Species: rat

Value: (BASF-Test)

Information on: Potassium hydroxide

Type of value: LD50

Species: rat (male)

Value: 333 mg/kg (OECD Guideline 425)

Literature data.

Inhalation:

Study does not need to be conducted.

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Dermal:

Type of value: LD50

Species: rabbit

Value: > 2,000 mg/kg (BASF-Test)

An aqueous solution was tested.

No mortality was observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Irritation / corrosion

Skin:

Species: rabbit

Result: Corrosive.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Result: Corrosive.

Method: OECD Guideline 435

Eye:

Species: rabbit

Result: Risk of serious damage to eyes.

Method: BASF-Test

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration Hazard:

Harmful if swallowed.

Other Information:

The toxicity of the product is based on its corrosivity. The data given refers to the decomposition or transformation products.

12. Ecological Information

Fish

Acute:

Fish test acute Flow through.

Lepomis macrochirus/LC50 (96 h): 15,400 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

Acute:

other Flow through.

Lepomis macrochirus/LC50 (96 h): 15,400 mg/l

Chronic:

static

Oryzias latipes /NOEC (200 h): 7,900 mg/l

The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Aquatic invertebrates

Acute:

DIN 38412 Part 11 static

Daphnia magna/EC50 (48 h): > 10,000 mg/l

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Literature data. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

Information on: methanol

Acute:

Daphnia magna/LC50 (48 h): > 10,000 mg/l

Literature data.

Information on: potassium hydroxide

Acute:

other static

Ceriodaphnia dubia/EC50 (48 h): 40.4 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample.

Chronic:

Study scientifically not justified.

Aquatic plants

Toxicity to aquatic plants:

OECD Guideline 201 static

green algae/EC50 (96 h): approx.22,000 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

Toxicity to aquatic plants:

OECD Guideline 201 static

green algae/EC50 (96 h): approx.22,000 mg/l

Microorganisms

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

Toxicity to microorganisms:

Inhibition of nitrification aquatic

Bacteria/EC50 (24 h): 880 mg/l

Degradability / Persistence

Biological / Abiological Degradation

Test method: (aerobic), activated sludge, domestic

Method of analysis: BOD of the ThOD

Degree of elimination: 90 - 100 % (20 d)

Evaluation: Readily biodegradable (according to OECD criteria).

Readily biodegradable (according to OECD criteria).

Bioaccumulation

measured

carp (72 h) Bioconcentration factor 4.5

The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

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Other adverse effects:

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. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. After neutralization only the relatively minor harmful effect of the resulting salts remains. The local regulations on waste-water treatment must be followed.

13. Disposal considerations

Waste disposal of substance:

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

Container disposal:

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

14. Transport Information

Land transport

TDG

Hazard class:	4.2
Packing group:	II
ID number:	UN 3206
Hazard label:	4.2, 8
Proper shipping name:	ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (contains POTASSIUM METHANOLATE)

Sea transport

IMDG

Hazard class:	4.2
Packing group:	II
ID number:	UN 3206
Hazard label:	4.2, 8
Marine pollutant:	NO
Proper shipping name:	ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (contains POTASSIUM METHANOLATE)

Air transport

IATA/ICAO

Hazard class:	4.2
Packing group:	II
ID number:	UN 3206
Hazard label:	4.2, 8
Proper shipping name:	ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (contains POTASSIUM METHANOLATE)

Further information

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

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15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released; restriction on quantity / not listed

CEPA, NDSL

WHMIS classification: B4: Flammable Solid

D2B: Materials Causing Other Toxic Effects - Toxic material

E: Corrosive material

F: Dangerously reactive material



THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other Information

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.

SDS Prepared by:

BASF NA Product Regulations

BASF HOTLINE (800) 454 – COPE (2673)

SDS Prepared on: 2014/06/11

END OF DATA SHEET