

# Safety Data Sheet

## K-Methylate sol. 32 %

Revision date : 2022/10/24  
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(30036706/SDS\_GEN\_CA/EN)

### 1. Identification

#### Product identifier used on the label

## K-Methylate sol. 32 %

#### Recommended use of the chemical and restriction on use

Recommended use\*: Chemical

Recommended use\*: process chemical; Intermediate; catalyst

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

Chemical family: alcohol, potassium salt

Synonyms: POTASSIUM METHYLATE SOLUTION IN 32% METHANOL  
POTASSIUM METHOXIDE SOLUTION

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### 2. Hazards Identification

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

#### Classification of the product

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Flam. Liq.	3	Flammable liquids
Met. Corr.	1	Corrosive to metals
Acute Tox.	3 (Inhalation - vapour)	Acute toxicity
Acute Tox.	3 (oral)	Acute toxicity
Acute Tox.	3 (dermal)	Acute toxicity
Skin Corr./Irrit.	1B	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
STOT SE	1	Specific target organ toxicity — single exposure

### Label elements

Pictogram:



Signal Word:  
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H301	Toxic if swallowed.
H370	Causes damage to organs (Central nervous system, Optic nerve).
H314	Causes severe skin burns and eye damage.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing vapours.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/gas/mist/vapours.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.
P234	Keep only in original packaging.
P240	Ground and bond container and receiving equipment.
P242	Use only non-sparking tools.

Precautionary Statements (Response):

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P310	Immediately call a POISON CENTER or physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P301	IF SWALLOWED:
P330	Rinse mouth
P331	Do NOT induce vomiting.
P390	Absorb spillage to prevent material damage.
P370 + P378	In case of fire: Use foam, dry powder or dry sand for extinction.

### Precautionary Statements (Storage):

P233	Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P406	Store in a corrosion-resistant container with a resistant inner liner.

### Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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### 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. No specific dangers known, if the regulations/notes for storage and handling are considered.

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## 3. Composition / Information on Ingredients

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

#### Methanol

CAS Number: 67-56-1  
Content (W/W):  $\geq 50.0$  -  $< 75.0\%$   
Synonym: Methyl alcohol

#### potassium methanolate

CAS Number: 865-33-8  
Content (W/W):  $\geq 25.0$  -  $< 50.0\%$   
Synonym: Methanol, potassium salt; Potassium methanolate

#### Potassium hydroxide

CAS Number: 1310-58-3  
Content (W/W):  $> 0.0$  -  $< 1.0\%$   
Synonym: Potassium hydroxide

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## 4. First-Aid Measures

### Description of first aid measures

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### General advice:

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

### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

### If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes. Remove 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:

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.

### Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., skin corrosion, irritates the eyes and respiratory tract, blindness, (Further) symptoms and / or effects are not known so far

### Indication of any immediate medical attention and special treatment needed

#### Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

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## 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:

Risk of exothermic reaction. May release highly flammable and/or corrosive gases/vapours.

### Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

### Further information:

Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

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### 6. Accidental release measures

#### Further accidental release measures:

Release of substance/product can cause fire or explosion.

#### **Personal precautions, protective equipment and emergency procedures**

Sources of ignition should be kept well clear. Use personal protective clothing. Avoid inhalation. Avoid contact with skin and eyes.

#### **Environmental precautions**

Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

#### **Methods and material for containment and cleaning up**

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

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### 7. Handling and Storage

#### **Precautions for safe handling**

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame. Take precautionary measures against static discharges. Use antistatic tools. Render equipment and apparatus inert (nitrogen, inert gases) and ground before putting into operation. Fire extinguishers should be kept handy.

#### **Conditions for safe storage, including any incompatibilities**

Segregate from acids and acid forming substances. Keep away from water.

Suitable materials for containers: Carbon steel (Iron), Stainless steel 1.4401, Stainless steel 1.4301 (V2), High density polyethylene (HDPE), Low density polyethylene (LDPE), enamelled, glass, Stainless steel 1.4541, Stainless steel 1.4571

Unsuitable materials for containers: Paper/Fibreboard

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Keep under dry nitrogen. Protect against moisture. Protect against heat. Keep away from sources of ignition - No smoking.

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### 8. Exposure Controls/Personal Protection

#### **Components with occupational exposure limits**

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
Potassium hydroxide	ACGIH, US:	CLV 2 mg/m3 ;

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### **Personal protective equipment**

#### **Respiratory protection:**

Wear respiratory protection if ventilation is inadequate. Suitable respiratory protection for lower concentrations or short-term effect: Gas filter for gases/vapours of organic compounds (boiling point <65 °C, f.e. EN 14387 Type AX)

#### **Hand protection:**

Chemical resistant protective gloves (EN ISO 374-1), 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

Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1), nitrile rubber (NBR) - 0.4 mm coating thickness, chloroprene rubber (CR) - 0.5 mm coating thickness, polyvinylchloride (PVC) - 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 (chemical goggles). Wear face shield if splashing hazard exists.

#### **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:**

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.

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## 9. Physical and Chemical Properties

Form:	liquid	
Odour:	perceptible, of methanol	
Odour threshold:	Not determined since toxic by inhalation.	
Colour:	colourless to yellowish	
pH value:	approx. 11	(ISO 1148)
	The products resulting from hydrolysis react strongly alkaline.	
solidification temperature:	-24.1 °C	
Boiling point:	approx. 92 °C ( 1,013 mbar)	
Flash point:	31 °C	(DIN 51755)
Lower explosion limit:	For liquids not relevant for classification and labelling.	

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### *Information on: Methanol*

Lower explosion limit: For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.

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Upper explosion limit: For liquids not relevant for classification and labelling.

### *Information on: Methanol*

Upper explosion limit: For liquids not relevant for classification and labelling.

-----  
Autoignition: 455 °C (DIN 51794)

### *Information on: Methanol*

Autoignition: 455 °C

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Vapour pressure: approx. 36 mbar  
( 20 °C)  
approx. 180 mbar  
( 50 °C)  
approx. 205 mbar  
( 55 °C)

Density: 0.98 g/cm<sup>3</sup> (ISO 2811-3)  
( 20 °C)

0.975 g/cm<sup>3</sup> (ISO 2811-3)  
( 50 °C)

0.9687 g/cm<sup>3</sup>  
( 55 °C)

Relative density: No data available.

### *Information on: Methanol*

Partitioning coefficient n-octanol/water (log Pow): -0.77 (measured)  
( 20 °C)

Literature data.

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Self-ignition temperature: The substance does not initiate an exothermic reaction under test conditions. not self-igniting

Thermal decomposition: It is not a self-decomposable substance.

Viscosity, dynamic: 18 mPa.s  
( 20 °C)

Viscosity, kinematic: No data available.

Solubility in water: ( 20 °C)  
hydrolyzes

Evaporation rate: Value can be approximated from Henry's Law Constant or vapor pressure.

## 10. Stability and Reactivity

### Reactivity

Corrosion to metals:  
Corrosive effect on: Aluminium

Oxidizing properties:  
not fire-propagating

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### Chemical stability

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

### Possibility of hazardous reactions

The product is chemically stable.

### Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid contact with air. Avoid moisture.

### Incompatible materials

carbon dioxide, water, acids, substances with an acid reaction, light metals

### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: Potassium hydroxide, Methanol

Thermal decomposition:

It is not a self-decompositionable substance.

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## 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: Toxic in contact with skin. Toxic by inhalation. Toxic if swallowed.

*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

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

Type of value: ATE

Value: 145 mg/kg

#### Inhalation

*Information on: Methanol*

*Type of value: LC50*

*Species: rat (male/female)*

*Value: 128 mg/l (BASF-Test)*

*Exposure time: 4 h*

*The vapour was tested.*



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### Dermal

*Information on: Methanol*  
*Type of value: LD50*  
*Species: rabbit*  
*Value: 17100 mg/kg (other)*  
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### Irritation / corrosion

Assessment of irritating effects: Causes severe burns. Risk of serious damage to 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.

### Skin

Result: Corrosive.  
Method: OECD Guideline 435

### Sensitization

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

### Aspiration Hazard

Toxic if swallowed.

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

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

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

*Information on: potassium methanolate*  
*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: Methanol*

*Assessment of mutagenicity: In the majority of studies performed with microorganisms and in mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed in in vivo tests.*  
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### Carcinogenicity

Assessment of carcinogenicity: Based on the ingredients there is no suspicion of a carcinogenic effect in humans.

*Information on: Methanol*

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*Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by inhalation, a carcinogenic effect was not observed. In long-term animal studies in which the substance was given in the drinking water in high concentrations, a carcinogenic effect was observed. These effects are not relevant to humans at occupational levels of exposure.*

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### Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

### *Information on: Methanol*

*Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.*

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### Teratogenicity

Assessment of teratogenicity: Based on the ingredients, there is no suspicion of a teratogenic effect.

### *Information on: Methanol*

*Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.*

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## 12. Ecological Information

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

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

#### Aquatic toxicity

#### *Information on: Potassium hydroxide*

*Assessment of aquatic toxicity:*

*At the present state of knowledge, no negative ecological effects are expected.  
The product gives rise to pH shifts. Study scientifically not justified.*

#### *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.*

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#### Toxicity to fish

#### *Information on: Methanol*

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

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#### Aquatic invertebrates

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*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), Selastrum capricornutum (OECD Guideline 201, static)*

## **Microorganisms/Effect on activated sludge**

### Toxicity to microorganisms

*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 (H<sub>2</sub>O)

The product is unstable in water. The elimination data also refer to products of hydrolysis. The organic component of the product is biodegradable.

### Assessment biodegradation and elimination (H<sub>2</sub>O)

*Information on: Potassium hydroxide*

*Not applicable for inorganic substances.*

*Information on: Methanol*

*Readily biodegradable (according to OECD criteria).*

### Elimination information

*Information on: Methanol*

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

## **Bioaccumulative potential**

### Assessment bioaccumulation potential

*Information on: Methanol*

*Significant accumulation in organisms is not to be expected.*

*Information on: Potassium hydroxide*

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*Accumulation in organisms is not to be expected.*  
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### Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

### Additional information

Other ecotoxicological advice:

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. Do not release untreated into natural waters.

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## 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.

### Container disposal:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

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## 14. Transport Information

### Land transport

TDG

Hazard class: 8  
Packing group: II  
ID number: UN 2920  
Hazard label: 8, 3  
Proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (contains POTASSIUM METHANOLATE, METHANOL) SOLUTION

### Sea transport

IMDG

Hazard class: 8  
Packing group: II  
ID number: UN 2920  
Hazard label: 8, 3  
Marine pollutant: NO  
Proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (contains POTASSIUM METHANOLATE, METHANOL) SOLUTION

### Air transport

IATA/ICAO

Hazard class: 8  
Packing group: II  
ID number: UN 2920  
Hazard label: 8, 3

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Proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (contains  
POTASSIUM METHANOLATE, METHANOL) SOLUTION

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### 15. Regulatory Information

#### Federal Regulations

##### **Registration status:**

Chemical DSL, CA released / listed

All substances are listed.

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### 16. Other Information

#### **SDS Prepared by:**

BASF NA Product Regulations

SDS Prepared on: 2022/10/24

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.

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