We create chemistry

Safety Data Sheet
K-Methylate sol. 32 %

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 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

Chemical family:	alcohol, potassium salt
Synonyms:	POTASSIUM METHYLATE SOLUTION IN 32% METHANOL POTASSIUM METHOXIDE SOLUTION

2. Hazards Identification

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

Classification of the product

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 non-sparking tools.

Precautionary Statements (Response):

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): 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.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

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): >= 50.0 - < 75.0%
Synonym: Methanol; Methyl alcohol

potassium methanolate
CAS Number: 865-33-8
Content (W/W): >= 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

4. First-Aid Measures

Description of first aid measures

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:
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: 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).

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:
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.

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
Substance/product is RCRA hazardous due to its properties.

Methods and material for containment and cleaning up
Spills should be contained and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling
Ensure thorough ventilation of stores and work areas. Protect against moisture. Protect against heat.

Protection against fire and explosion:
See SDS section 5 - Fire fighting measures.

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.

Storage stability:
Protect against moisture.

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 ;

Advice on system design:
Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:
Wear the following respiratory protection if exposure limit for methanol may be exceeded: At concentrations > 200 ppm, use an air-supplied or self-contained breathing apparatus (i.e. positive-pressure).

Hand protection:
Wear chemical resistant protective gloves., Consult with glove manufacturer for testing data.

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.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	alcohol-like	
Odour threshold:	Not determined since toxic by inhalation.	
Colour:	colourless to yellowish	
pH value:	approx. 11 The products resulting from hydrolysis react strongly alkaline.	(ISO 1148)
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.	
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.	

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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Density:	0.98 g/cm3 (20 °C)	(ISO 2811-3)
	0.975 g/cm3 (50 °C)	(ISO 2811-3)
	0.9687 g/cm3 (55 °C)	
Relative density:	No data available.	
Information on: Methanol		
Partitioning coefficient n-octanol/water (log Pow):	-0.77 (20 °C) Literature data.	(measured)
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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-decompositionable substance.	
Viscosity, dynamic:	18 mPa.s (20 °C)	
Viscosity, kinematic:	No data available.	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
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

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
water, acids

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: Potassium hydroxide, Methanol

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

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.

Dermal

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

Irritation / corrosion
Assessment of irritating effects: Corrosive to skin and/or eyes.
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
Species: rabbit
Result: Corrosive.
Method: similar to OECD guideline 404
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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.

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

Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: similar to OECD guideline 406
The product has not been tested.

Closed-patch Test
Species: human
Result: Non-sensitizing.
Method: Human patch test
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration Hazard
Toxic if swallowed.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: There is a possibility of liver damage. The substance may cause damage to the central nervous system after repeated skin contact with high doses.

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: 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.

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

Information on: Methanol
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.

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.

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.

Toxicity to fish

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

Aquatic invertebrates

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)

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 (H2O)
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 (H2O)

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; 92/69/EWG, 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

Accumulation in organisms is not to be expected.

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.

13. Disposal considerations

Waste disposal of substance:
Incinerate or dispose of in a RCRA-licensed facility. Do not discharge into waterways or sewer systems without proper authorization. Dispose of in a RCRA-licensed facility.

Container disposal:
Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. If containers are not empty, they must be disposed of in a RCRA-licensed facility.

RCRA: D001

14. Transport Information

Land transport
USDOT

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

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

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

EPCRA 313:

CAS Number	Chemical name
67-56-1	Methanol

CERCLA RQ	CAS Number	Chemical name
5000 LBS	67-56-1	Methanol
1000 LBS	1310-58-3	Potassium hydroxide
1 LBS	7439-97-6	mercury

Reportable Quantity for release: 7,336.8 lb

State regulations

State RTK	CAS Number	Chemical name
NJ	67-56-1	Methanol
PA	67-56-1	Methanol

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: 1 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2024/02/09

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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