We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

K-Methylate sol. 32 %

Use: Chemical

Recommended use: process chemical, Intermediate, catalyst

Manufacturer/supplier:
BASF (Thai) Limited
23rd Floor, Emporium Tower, 622, Sukhumvit 24 Rd.,
Klongton, Klongtoey, Bangkok 10110, THAILAND
Telephone: +66 2624-1999
Telefax number: +66 2664-9254
E-mail address: Thailand-SDS-info@basf.com

Emergency information:
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification according to UN GHS 2009

Classification of the substance and mixture:
Flammable liquids: Cat. 3
Acute toxicity: Cat. 3 (Inhalation - vapour)
Acute toxicity: Cat. 3 (oral)
Acute toxicity: Cat. 3 (dermal)
Skin corrosion/irritation: Cat. 1B
Serious eye damage/eye irritation: Cat. 1
Specific target organ toxicity — single exposure (Central nervous system, Optic nerve): Cat. 1

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

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

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.
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.
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.
P242	Use only non-sparking tools.
P240	Ground and bond container and receiving equipment.

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): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.

Precautionary Statements (Storage):

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

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

3. Composition/information on ingredients

Chemical nature

Preparation based on: potassium methanolate, methanol

Hazardous ingredients

potassium methanolate

Content (W/W): 32 % CAS Number: 865-33-8	Flam. Sol.: Cat. 1 Self-heat.: Cat. 1 Met. Corr.: Cat. 1 Acute Tox.: Cat. 4 (oral) Eye Dam./Irrit.: Cat. 1 Skin Corr./Irrit.: Cat. 1A

methanol

Content (W/W): 68 % CAS Number: 67-56-1	Flam. Liq.: Cat. 2 Acute Tox.: Cat. 3 (Inhalation - vapour) Acute Tox.: Cat. 3 (oral) Acute Tox.: Cat. 3 (dermal) STOT SE (Central nervous system, Optic nerve): Cat. 1

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).

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

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: 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
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

Specific hazards:
Risk of exothermic reaction.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Sealed containers should be protected against heat as this results in pressure build-up.

6. Accidental Release Measures

Personal precautions:
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 for cleaning up or taking up:
For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

Additional information: Release of substance/product can cause fire or explosion.

7. Handling and Storage

Handling

Ensure thorough ventilation of stores and work areas. Protect against moisture. Protect against heat.

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.

Storage

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.

Protect from temperatures below: -20 °C
The product crystallizes below the limit temperature.

8. Exposure controls and personal protection

Components with occupational exposure limits

methanol, 67-56-1;

TWA value 200 ppm (ACGIHTLV)
STEL value 250 ppm (ACGIHTLV)
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption

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:
Safety glasses with side-shields (frame goggles) (f.e. 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 vapour/spray. Handle in accordance with good industrial hygiene and safety practice. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless to yellowish	
Odour:	perceptible, of methanol	
Odour threshold:	Not determined since toxic by inhalation.	
pH value:	approx. 11 The products resulting from hydrolysis react strongly alkaline.	(ISO 1148)
solidification temperature:	-24.1 °C	
Boiling point:	approx. 92 °C (1,013 mbar)	
Flash point:	31 °C	(DIN 51755)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
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.

Ignition temperature:	455 °C	(DIN 51794)

Information on: methanol

Ignition temperature:	455 °C	

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

Self heating ability: It is not a substance capable of spontaneous heating.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Vapour pressure:	approx. 36 mbar (20 °C) approx. 180 mbar (50 °C) approx. 205 mbar (55 °C)	
Density:	0.98 g/cm3 (20 °C) 0.975 g/cm3 (50 °C)	(ISO 2811-3) (ISO 2811-3)
Solubility in water:	hydrolyzes (20 °C)	
Hygroscopy:	hygroscopic	

Information on: methanol

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

Viscosity, dynamic:	18 mPa.s (20 °C)	

10. Stability and Reactivity

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

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

Substances to avoid:
carbon dioxide, water, acids, substances with an acid reaction, light metals

Corrosion to metals: Corrosive effect on:
Aluminium

Hazardous reactions:
Exothermic reaction. Reacts with water and acids.

Hazardous decomposition products:
potassium hydroxide, methanol

11. Toxicological Information

Acute toxicity

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

Experimental/calculated data:
(oral):The product has not been tested. The statement has been derived from the properties of the individual components.

ATE (oral): 145 mg/kg

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.

Information on: methanol
Experimental/calculated data:
LC50 rat (by inhalation): 128 mg/l 4 h (BASF-Test)
The vapour was tested.

Information on: methanol
Experimental/calculated data:
LD50 rabbit (dermal): 17100 mg/kg (other)

Irritation

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.

Experimental/calculated data:
Skin corrosion/irritation: Corrosive. (OECD Guideline 435)

Respiratory/Skin sensitization

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

Germ cell mutagenicity

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

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

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

Developmental toxicity

Information on: methanol
Assessment of teratogenicity:
The results of animal studies gave indication of a developmental toxic/teratogenic effects with high doses.

Repeated dose toxicity and Specific target organ toxicity (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

Toxic if swallowed.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

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

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)

Mobility

Assessment transport between environmental compartments:
Adsorption to solid soil phase is not expected.

Persistence and degradability

Information on: potassium hydroxide
Assessment biodegradation and elimination (H2O):
Not applicable for inorganic substances.

Information on: methanol

Information on: methanol
Elimination information:
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).

Bioaccumulation potential

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

Information on: potassium hydroxide
Assessment bioaccumulation potential:
Accumulation in organisms is not to be 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

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:

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

Sea transport
IMDG

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

Air transport
IATA/ICAO

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

15. Regulatory Information

Hazard determining component(s) for labelling: POTASSIUM METHANOLATE, METHANOL

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.

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.