We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
Na-Methylate sol. 30 %

Use: industrial chemicals

Recommended use: process chemical, Intermediate, catalyst

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 liquids: Cat.3
Corrosive to metals: Cat.1
Acute toxicity: Cat.3 (Inhalation - vapour)
Acute toxicity: Cat.3 (oral)
Acute toxicity: Cat.3 (dermal)
Skin corrosion: Cat.1A
Serious eye damage: Cat.1
Specific target organ toxicity — single exposure: Cat.1

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H370	Causes damage to organs.
H314	Causes severe skin burns and eye damage.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.

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.
P260	Do not breathe dust/gas/mist/vapours.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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 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): 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 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P390	Absorb spillage to prevent material damage.
P370 + P378	In case of fire: Use … to extinguish.

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 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.

Other hazards which do not result in classification:
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

Preparation based on:
sodium methanolate, methanol

Hazardous ingredients

methanol

Content (W/W): >= 50 % - < 75 %	Flam. Liq.: Cat. 2
CAS Number: 67-56-1	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

sodium methanolate

Content (W/W): >= 25 % - < 50 %	Flam. Sol.: Cat. 1
CAS Number: 124-41-4	Self-heat.: Cat. 1
	Acute Tox.: Cat. 4 (oral)
	Skin Corr.: Cat. 1A
	Eye Dam.: Cat. 1

sodium hydroxide

Content (W/W): >= 0 % - < 1 %	Met. Corr.: Cat. 1
CAS Number: 1310-73-2	Skin Corr.: Cat. 1A
	Eye Dam.: 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: skin corrosion, irritates the eyes and respiratory tract, blindness, 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., (Further) symptoms and / or effects are not known so far
Hazards: No hazard is expected under intended use and appropriate handling.
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.Avoid inhalation.Avoid contact with skin and eyes.

For non-emergency personnel:Use personal protective clothing.Information regarding personal protective measures, see section 8.

For emergency responders:Take appropriate protective measures.

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.

Solidified/precipitated product can be redissolved with a non-igniting heat source provided that the formation of an atmosphere capable to explode is suppressed by inertization or sources of ignition are absent. A possible rise in pressure caused by evaporating solvent has to be taken into account.

When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Change clothes immediately after contamination.

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: Stove-lacquer KNS L-35, Carbon steel (Iron), Stainless steel 1.4401, Stainless steel 1.4301 (V2), High density polyethylene (HDPE), glass, Low density polyethylene (LDPE), Stainless steel 1.4541, Stainless steel 1.4571
Unsuitable materials for containers: Aluminium, Galvanized carbon steel (Zinc), 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: 7 °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 (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:
Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

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.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless to yellowish	
Odour:	perceptible, of methanol	
Odour threshold:	Not determined since harmful by inhalation.	
pH value:	approx. 11	(ISO 1148)
crystallization temperature:	6.8 °C	

Boiling point:	92 °C (1,013 bar)	
Flash point:	33 °C	(DIN 51755)
Evaporation rate:	No applicable information available., Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	(29.6 °C) The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the lower explosion limit.	(DIN EN 15794)
Information on: methanol		
Lower explosion limit:	5.5 %(V)	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Information on: methanol		
Upper explosion limit:	36.5 %(V)	
Ignition temperature:	No data available.	
Information on: methanol		
Ignition temperature:	455 °C	
Thermal decomposition:	It is not a self-decompositionable substance. Stable up to boiling point.	
Self ignition:	not self-igniting	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Radioactivity:		not radioactive for transport purposes
Vapour pressure:	approx. 34 hPa (20 °C) approx. 150 hPa (50 °C)	
Density:	0.969 g/cm3 (20 °C)	(ISO 2811-3)
	0.943 g/cm3 (50 °C)	(ISO 2811-3)

	0.938 g/cm3 (55 °C)		(ISO 2811-3)
Relative density:			
	No data available.		
Solubility in water:	hydrolyzes (20 °C)		
Miscibility with water:			
	Reacts with water.		
Hygroscopy:	hygroscopic		
Information on: methanol			
Partitioning coefficient n-octanol/water (log Pow):		-0.77	(measured)
	(20 °C) Literature data.		

Viscosity, dynamic:	64 mPa.s (20 °C)		(DIN 51562)
Viscosity, kinematic:	66 mm2/s (20 °C)		(calculated (from dynamic viscosity))

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. Stable up to boiling point.

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

Corrosion to metals: Corrosive effect on metals.
Aluminium
Corrosion rate > 6.25 mm/a using 7075-T6 or AZ5GU-T6

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

Hazardous decomposition products:
sodium hydroxide, methanol

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
ATE (oral): 138 mg/kg

Acute inhalation toxicity

ATE (by inhalation): 3 mg/l
Determined for vapor

ATE (by inhalation): > 5 mg/l
Determined for mist

Acute dermal toxicity

ATE (dermal): 422 mg/kg

Assessment of acute toxicity

The toxicity of the product is based on its corrosivity.

Information on: sodium methanolate

Acute oral toxicity

Experimental/calculated data:
LD50 rat (oral): 1,687 mg/kg (OECD Guideline 401)
An aqueous solution was tested.

Information on: methanol

Acute oral toxicity

Experimental/calculated data:
LD50 rat (oral): > 1187 - 2769 mg/kg (BASF-Test)

Information on: sodium methanolate

Acute inhalation toxicity

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

Information on: methanol

Acute inhalation toxicity

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

Information on: sodium methanolate

Acute dermal toxicity

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

Information on: methanol

Acute dermal toxicity

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

Information on: sodium methanolate

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 irritates the eyes and respiratory tract blindness 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. (Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:
Corrosive! Damages skin and eyes.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Corrosive. (OECD Guideline 404)

Serious eye damage/irritation:As the product corrodes the skin, it can be expected to have a similar effect on the eyes also.

Information on: sodium methanolate
Experimental/calculated data:
Skin corrosion/irritation rabbit: Corrosive. (similar to OECD guideline 404)

Information on: methanol
Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (BASF-Test)

Information on: sodium methanolate
Experimental/calculated data:
Serious eye damage/irritation rabbit: irreversible damage (BASF-Test)

Information on: methanol
Experimental/calculated data:
Serious eye damage/irritation rabbit: non-irritant (BASF-Test)

Respiratory/Skin sensitization

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

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: Non-sensitizing. (similar to OECD guideline 429)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Patch test human: Non-sensitizing. (Human patch test)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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

Information on: methanol
Assessment of sensitization:
Skin sensitizing effects were not observed in animal studies.

Germ cell mutagenicity

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

Information on: sodium 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 fully tested. The statements have been derived in parts from 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: sodium methanolate
Assessment of carcinogenicity:
Study does not need to be conducted. The chemical structure does not suggest a specific alert for such an effect.

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

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

Developmental toxicity

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

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

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

Specific target organ toxicity (single exposure)

Remarks: No data available.

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

Assessment of repeated dose toxicity:
The substance may cause blindness after repeated ingestion. The substance may cause blindness after repeated inhalation.

Information on: sodium methanolate
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

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: 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)

Mobility

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

Persistence and degradability

Information on: sodium hydroxide

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).

Bioaccumulation potential

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

Information on: sodium 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:

UN number or ID number:	UN 1289
UN proper shipping name:	SODIUM METHYLATE SOLUTION
Transport hazard class(es):	3, 8
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:2W
IERG Number:19

Sea transport
IMDG

UN number or ID number:	UN 1289
UN proper shipping name:	SODIUM METHYLATE SOLUTION
Transport hazard class(es):	3, 8
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-C

Air transport
IATA/ICAO

UN number or ID number:	UN 1289
UN proper shipping name:	SODIUM METHYLATE SOLUTION
Transport hazard class(es):	3, 8
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

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 6

Registration status:

AICIS, AU

Listed in AIIC.

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.