



NEW HEAVEN CHEMICALS INC

Material Safety data Sheet

Sodium Methoxide 30% solution

1. Product information

Trade name: Sodium Methoxide solution 30% in Methanol (SMO30%)

Company: New Heaven Chemicals
1585 380th Street
Manly, IA 50456

Tel.: (641) 454-4030

Emergency number: CHEMTREC – CCN666302
1-800-424-9300 US & Canada
1 703-527-3887 Outside USA

Chemical family: alcohol, sodium salt
Synonyms: Methanol, Sodium Salt Solution

2. Composition/information on ingredients

Sodium Metholat	Ø 30,00%
CAS-Nr. 124-41-4	EG-Nr. 204-699-5
Symbol(s): F, C	R-phrases R11, R14, R34

Methanol	Ø 70,00%
CAS-Nr. 67-56-1	EG-Nr. 200-659-6
Symbol(s): F, T	R-phrases R11, R23/24/25, R39/23/24/25

3. Hazard Identification

Emergency overview

DANGER: FLAMMABLE, CORROSIVE LIQUID, TOXIC BY INHALATION CAUSES SEVERE BURNS.

Wear protective clothing.
Wear full face shield if splashing hazard exists,
Ensure adequate ventilation.
Wear a NIOSH certified (or equivalent) organic vapour respirator.
Avoid contact with the skin, eyes and clothing.

Potential health effects

Primary routes of exposure

Routes of entry for solids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases,

Acute toxicity:

Information on: Methanol

Toxic by inhalation, in contact with skin and if swallowed.

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Repeated dose toxicity:

Information on: Methanol

The substance may cause blindness after repeated ingestion.

4. 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, and seek medical attention.

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:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if victim is unconscious or having convulsions. Immediate medical attention required.

5. Fire fighting measures

Boiling point:	92 °C
Flash point:	32 °C
Auto ignition:	445 °C

Lower explosion limit:	5,5% (V)
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Information on: Methanol

Upper explosion limit;	44,0% (V)
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Information on Methanol

steam pressure: 45hPa (20 °C)
density approx. 0,97 g/cm³ (20 °C)
Method: DIN 51757

Suitable extinguishing media:

Dry extinguishing media, sand, alcohol resistant foam, CO2

Unsuitable extinguishing media for safety reasons:

Water carbon dioxide

Hazards during fire-fighting:

Risk of exothermic reaction

Protective equipment for fire-fighting

With fire: Respirators already-hold/carry. Suitable protective clothing

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:

Substance/product is RCRA hazardous due to its properties.

Cleanup:

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

Further information:

Release of substance/product can cause fire or explosion.

7. Handling and storage

Handling

General advice:

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

General advice:

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 incompatibility:

General: Segregate from acids and acid forming substances.

Temperature tolerance Protect from temperatures below: -15°C The product crystallises below the limit temperature.

8. Exposure controls and personal protection

Components with workplace control parameters Methanol aSHA PEL 200 ppm 260 mg/m³
ACGIH TWA value 200 ppm ; STEL value 250 ppm ; Skin Designation

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Do not exceed the maximum use concentration for the respirator face piece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full face piece pressure demand self-contained breathing apparatus (SC BA) or a full face piece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Suitable materials, butyl rubber

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.

9. Physical and chemical properties

Form:	liquid		
Odour:	perceptible, of methanol		
Colour:	colourless to yellowish		
pH value:	approx. 13	(20 g/l)	(20 °C)
Crystallisation temperature:	-20°C		
Boiling point:	92°C	(1,013 mbar)	
	Method:	DIN 51751	
Flash point:	32 °C		
	Method:	DIN 51755	

Ignition temperature	approx. 445 °C	
	Method :	DIN 51794
Lower explosion limit:	5,5% (V)	
	Information on:	Methanol
Upper explosion limit;	44.0% (V)	
	Information on:	Methanol
Vapour pressure:	approx. 45 hPa	(20°C)
Density:	0.97 g/cm ³	(20°C)
	Method:	DIN 51757
Water solubility	partly mixable	
	partial decomposition by hydrolysis	
Distribution coefficient (n-octanol/water)	log Pow: -0,77	
	(measured) on Methanol	
Viscosity, dynamic	68 mPa.s	(20 °C)
<i>Information on: Methanol</i>	-0.82	(25°C)
Partitioning coefficient n- Octanol/water (log Pow): -----		
Viscosity, dynamic:	17 mPa.s	(20 °C)
Solubility in water:		(20°C) hydrolyses

10. Stability and reactivity

Conditions to avoid:

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

Products to avoid:

Acids, Oxidizing agent, humidity and water.

Dangerous decomposition products:

Decomposition to products with the hydrolysis in water. Sodium hydroxide solution, methanol

Thermal decomposition

Reacted with hydrolysis weakly exothermically

Dangerous reactions:

Exothermic reaction with:

Water, acids, oxidising agent, Hydrogen development with: several metals as aluminium, magnesium, zinc

Decomposition products:

Hazardous decomposition products: Sodium Hydroxide, Methanol

11. Toxicological information

Information on: Sodium Hydroxide

Acute and prolonged toxicity to fish:

other static

Rainbow trout/LC50 (96 h): 45.4 mg/l

The product will cause changes in the pH value of the test system. The result refers to an un-neutralised sample.

Information on: Methanol

Acute and prolonged toxicity to fish: other Flow through.

sunfish, bluegill/LC50 (96 h): 15,400 mg/l

Information on: Sodium Hydroxide

Acute toxicity to aquatic invertebrates:

other static

Ceriodaphnia sp.IEC50 (48 h): 40.4 mg/l

The product will cause changes in the pH value of the test system. The result refers to an un-neutralised sample.

Information on: Methanol

Acute toxicity to aquatic invertebrates: DIN 38412 Part 11 static

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

Information on: Methanol

Toxicity to aquatic plants:

other static

green algae/Toxic limit concentration (192 h): 8,000 mg/l

Information on: Methanol

Toxicity to micro-organisms:

other aquatic

Bacteria/Toxic limit concentration (16 h): 6,600 mg/l

Other eco toxicological advice:

Due to the pH-value of the product, neutralisation 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.

12. Ecological information

Environmental fate and transport

Biodegradation: Evaluation:

The product is unstable in water. The elimination data also refer to products of hydrolysis.

*Information on: Methanol Test method:
Method of analysis: Degree of elimination: Evaluation:*

*OECD 301D; EEC 92/69, CA-E (aerobic),
BOD of the ThOD 95 % (20 d)
Readily biodegradable (according to OECD criteria).
Inorganic product which cannot be eliminated from water by biological purification processes.
Readily biodegradable (according to OECD criteria).*

Information on: Sodium Hydroxide

Accumulation in organisms is not to be expected.

Information on: Methanol

*No significant accumulation in organisms is expected as a result of the distribution coefficient of
noctanol/water (log Pow).*

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 authorisation.

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 unauthorised use of used
containers. If containers are not empty, they must be disposed of in a RCRA-licensed facility.

RCRA: D001

14. Transport information

by truck:

Class	3
Dangerous goods	3(8)
UN-Nr.	1289
Packing group	II
Warning notice	38 / 1289
Description (Technical name) In Germany	NATRIUM METHYLAT, LÖSUNG

By sea

Class	3
Subclass	8
UN-Nr.	1289
Packing group	II
EmS	3-04
Description (Technical name)	SODIUM METHOXIDE, SOLUITON

By air

Class 3
Subclass 8
Number 33
Letter c
EMS 3-04
Description (Technical name) 1289 SODIUM METHOXIDE, SOLUTION

Shipping advise / Remarks

IATA_C ERG-Code 3C
IATA_P ERG-Code 3C

15. R- and S- Phrases

Symbols	T	Toxic
R-phrases	R10 R23/24/25 R39/23/24/25	Flammable Toxic by inhalation, contact with skin, Swallowed Danger of very serious irreversible effects. by inhalation, contact with skin, swallowed
	R34	causes burns
S-phrases	S 7 S26 S36/37/39 S45	Keep container tightly closed In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, eye/face protection In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

16. Regulatory information**Federal Regulations**

Registration status: TSCA, US
Released / Listed

Chronic target organ effects reported, ACGIH TLV established, Flammable

CERCLA RQ 5,000 LBS 1,000 LBS

<u>CAS Number</u>	<u>Chemical name</u>
67-56-1	Methanol
124-41-4; 1310-73-2	Sodium methanolate;

Sodium Hydroxide

SARA hazard categories (EPCRA 311/312): Fire, Chronic, Acute

SARA 313:

Chemical name Methanol

State reaulatlons

State RTK

CAS Number 124-41-4
67-56-1

Chemical name
sodium methanolate Methanol

State RTK
MA, NJ, PA
MA, NJ, PA