

## SAFETY DATA SHEET

Creation Date 25-Jun-2009

Revision Date 24-Dec-2021

Revision Number 6

### 1. Identification

**Product Name** Sodium methoxide, 5.4M (30 wt.%) solution in methanol

**Cat No. :** AC168600000; AC168600010; AC168600025; AC168600100;  
AC168600250; AC168600251

**Synonyms** Sodium methylate

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Corrosive to metals	Category 1
Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 3
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 1
Target Organs - Central nervous system (CNS), Optic nerve.	

#### Label Elements

**Signal Word**  
Danger

**Hazard Statements**

Flammable liquid and vapor  
May be corrosive to metals  
Causes severe skin burns and eye damage  
May cause respiratory irritation  
May cause drowsiness or dizziness  
Causes damage to organs  
Causes damage to organs through prolonged or repeated exposure  
Toxic if swallowed, in contact with skin or if inhaled



**Precautionary Statements**

**Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
Use only outdoors or in a well-ventilated area  
Do not breathe dust/fume/gas/mist/vapors/spray  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Keep only in original container  
Keep cool

**Response**

Immediately call a POISON CENTER or doctor/physician

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**Skin**

Wash contaminated clothing before reuse  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Ingestion**

Rinse mouth  
Do NOT induce vomiting

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Spills**

Absorb spillage to prevent material damage

**Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed  
Store in corrosive resistant polypropylene container with a resistant inliner  
Store in a dry place

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Reacts violently with water

**Other hazards**

Poison, may be fatal or cause blindness if swallowed. Vapor harmful. CANNOT BE MADE NON-POISONOUS.

WARNING. Reproductive Harm - <https://www.p65warnings.ca.gov/>.

### 3. Composition/Information on Ingredients

Component	CAS No	Weight %
Methyl alcohol	67-56-1	70
Sodium methoxide	124-41-4	30

### 4. First-aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>Inhalation</b>	If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Most important symptoms and effects</b>	Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting; Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool closed containers.
<b>Unsuitable Extinguishing Media</b>	DO NOT USE WATER
<b>Flash Point</b>	33 °C / 91.4 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	240 °C / 464 °F
<b>Explosion Limits</b>	
Upper	44 vol %
Lower	5.50 vol %
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Reacts violently with water. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

#### **Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Thermal decomposition can lead to release of irritating gases and vapors. Sodium oxides.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

#### **NFPA**

**Health**  
3

**Flammability**  
3

**Instability**  
1

**Physical hazards**  
W

### **6. Accidental release measures**

#### **Personal Precautions**

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

#### **Environmental Precautions**

Should not be released into the environment.

#### **Methods for Containment and Clean Up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Do not expose spill to water. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### **7. Handling and storage**

#### **Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Do not allow contact with water. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

#### **Storage.**

Keep away from water or moist air. Keep away from heat, sparks and flame. Store indoors. Flammables area. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Acids.

### **8. Exposure controls / personal protection**

#### **Exposure Guidelines**

<b>Component</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH IDLH</b>	<b>Mexico OEL (TWA)</b>
Methyl alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m <sup>3</sup> (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m <sup>3</sup> Skin TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 250 ppm

#### **Legend**

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

#### **Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

<b>Eye/face Protection</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles. Face protection shield.
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

<b>Physical State</b>	Liquid
<b>Appearance</b>	Light yellow
<b>Odor</b>	Alcohol-like
<b>Odor Threshold</b>	No information available
<b>pH</b>	Not applicable
<b>Melting Point/Range</b>	1 - 5 °C / 33.8 - 41 °F
<b>Boiling Point/Range</b>	93 °C / 199.4 °F @ 760 mmHg
<b>Flash Point</b>	33 °C / 91.4 °F
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid,gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
Upper	44 vol %
Lower	5.50 vol %
<b>Vapor Pressure</b>	150 hPa @ 50 °C
<b>Vapor Density</b>	No information available
<b>Specific Gravity</b>	0.97
<b>Solubility</b>	Water reactive
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	240 °C / 464 °F
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	No information available

**10. Stability and reactivity**

<b>Reactive Hazard</b>	Yes
<b>Stability</b>	Moisture sensitive.
<b>Conditions to Avoid</b>	Exposure to moist air or water. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moisture.
<b>Incompatible Materials</b>	Strong oxidizing agents, Acids
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Thermal decomposition can lead to release of irritating gases and vapors, Sodium oxides
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	Reacts violently with water.

**11. Toxicological information****Acute Toxicity**

**Product Information****Oral LD50**

Category 3. ATE = 50 - 300 mg/kg.

**Dermal LD50**

Category 3. ATE = 200 - 1000 mg/kg.

**Vapor LC50**

Based on ATE data, the classification criteria are not met. ATE &gt; 20 mg/l. Category 3. ATE = 2 - 10 mg/l.

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl alcohol	LD50 = 1187 – 2769 mg/kg (Rat)	LD50 = 17100 mg/kg ( Rabbit )	LC50 = 128.2 mg/L ( Rat ) 4 h
Sodium methoxide	1687 mg/kg ( Rat )	>2000 mg/kg ( Rat )	Not listed

**Toxicologically Synergistic**

No information available

**Products****Delayed and immediate effects as well as chronic effects from short and long-term exposure****Irritation**

Causes burns by all exposure routes

**Sensitization**

No information available

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Methyl alcohol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium methoxide	124-41-4	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects**

No information available

**Reproductive Effects**

California Proposition 65. Reproductive toxicity.

**Developmental Effects**

No information available.

**Teratogenicity**

No information available.

**STOT - single exposure**

Central nervous system (CNS) Optic nerve

**STOT - repeated exposure**

None known

**Aspiration hazard**

No information available

**Symptoms / effects, both acute and delayed**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting:  
 Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.  
 Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Endocrine Disruptor Information**

No information available

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Reacts with water so no ecotoxicity data for the substance is available.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Methyl alcohol	Not listed	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h

**Persistence and Degradability**

Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation**

No information available.

**Mobility**

. Is not likely mobile in the environment.

Component	log Pow
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Methyl alcohol	-0.74
Sodium methoxide	-0.75

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Methyl alcohol - 67-56-1	U154	-

### 14. Transport information

#### DOT

UN-No UN1289  
 Proper Shipping Name SODIUM METHYLATE SOLUTIONS  
 Hazard Class 3  
 Subsidiary Hazard Class 8  
 Packing Group III

#### TDG

UN-No UN1289  
 Proper Shipping Name SODIUM METHYLATE SOLUTION  
 Hazard Class 3  
 Subsidiary Hazard Class 8  
 Packing Group III

#### IATA

UN-No UN1289  
 Proper Shipping Name SODIUM METHYLATE SOLUTION  
 Hazard Class 3  
 Subsidiary Hazard Class 8  
 Packing Group III

#### IMDG/IMO

UN-No UN1289  
 Proper Shipping Name SODIUM METHYLATE SOLUTION  
 Hazard Class 3  
 Subsidiary Hazard Class 8  
 Packing Group III

### 15. Regulatory information

#### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Methyl alcohol	67-56-1	X	ACTIVE	-
Sodium methoxide	124-41-4	X	ACTIVE	-

#### Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
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**Sodium methoxide, 5.4M (30 wt.%) solution in methanol**

Revision Date 24-Dec-2021

Methyl alcohol	67-56-1	X	-	200-659-6	X	X	X	X	X	KE-23193
Sodium methoxide	124-41-4	X	-	204-699-5	X	X	X	X	X	KE-23196

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**U.S. Federal Regulations****SARA 313**

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Methyl alcohol	67-56-1	70	1.0

**SARA 311/312 Hazard Categories** See section 2 for more information**CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Sodium methoxide	X	1000 lb	-	-

**Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Methyl alcohol	X		-

**OSHA** - Occupational Safety and Health Administration

Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Methyl alcohol	5000 lb	-
Sodium methoxide	1000 lb	-

**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Methyl alcohol	67-56-1	Developmental	-	Developmental

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methyl alcohol	X	X	X	X	X
Sodium methoxide	X	X	X	-	-

**U.S. Department of Transportation**Reportable Quantity (RQ): Y  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations****Mexico - Grade** Serious risk, Grade 3**Authorisation/Restrictions according to EU REACH**

Component	REACH (1907/2006) - Annex XIV -	REACH (1907/2006) - Annex XVII -	REACH Regulation (EC
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	Substances Subject to Authorization	Restrictions on Certain Dangerous Substances	1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Methyl alcohol	-	Use restricted. See item 69. (see link for restriction details)	-
Sodium methoxide	-	Use restricted. See item 75. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Methyl alcohol	67-56-1	Listed	Not applicable	Not applicable	Not applicable
Sodium methoxide	124-41-4	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Methyl alcohol	67-56-1	500 tonne	5000 tonne	Not applicable	Not applicable
Sodium methoxide	124-41-4	Not applicable	Not applicable	Not applicable	Not applicable

## 16. Other information

#### Prepared By

Regulatory Affairs  
Thermo Fisher Scientific  
Email: EMSDS.RA@thermofisher.com

#### Creation Date

25-Jun-2009

#### Revision Date

24-Dec-2021

#### Print Date

24-Dec-2021

#### Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**