

ALFAAL05673

## Sodium methoxide

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>产品说明:</b> <b>Product Description:</b>	<b>甲醇钠</b> <b>Sodium methoxide</b>
<b>Cat No. :</b>	<b>L05673</b>
<b>Synonyms</b>	Sodium methylate
<b>CAS No</b>	124-41-4
<b>Molecular Formula</b>	C H3 Na O
<b>Supplier</b>	Avocado Research Chemicals Ltd. (Part of Thermo Fisher Scientific) Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608
<b>Emergency Telephone Number</b>	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US</b> :001-201-796-7100 / <b>Europe</b> : +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US</b> :001-800-424-9300 / <b>Europe</b> :001-703-527-3887
<b>E-mail address</b>	begel.sdsdesk@thermofisher.com
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	No Information available

### SECTION 2. HAZARD IDENTIFICATION

Physical State	Appearance	Odor
Powder Solid	Light yellow	Odorless
<b>Emergency Overview</b>		
Self-heating; may catch fire. Causes severe skin burns and eye damage. Flammable solid. May be corrosive to metals. Harmful if swallowed. Reacts violently with water. Moisture sensitive. Air sensitive. May form combustible dust concentrations in air.		

#### Classification of the substance or mixture

Flammable solids.	Category 1
Self-heating substances/mixtures	Category 1
Substances/mixtures corrosive to metal	Category 1
Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1

#### **Label Elements**

## Sodium methoxide



## Signal Word

## Danger

**Hazard Statements**

H225 - Highly flammable liquid and vapor  
 H228 - Flammable solid  
 H251 - Self-heating: may catch fire  
 H290 - May be corrosive to metals  
 H314 - Causes severe skin burns and eye damage  
 H302 - Harmful if swallowed

**Precautionary Statements****Prevention**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
 P234 - Keep only in original packaging  
 P235 + P410 - Keep cool. Protect from sunlight  
 P240 - Ground and bond container and receiving equipment  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Response**

P390 - Absorb spillage to prevent material damage  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor  
 P330 - Rinse mouth  
 P331 - Do NOT induce vomiting  
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish  
 P362 + P364 - Take off contaminated clothing and wash it before reuse

**Storage**

P402 - Store in a dry place  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P406 - Store in corrosion resistant polypropylene container with a resistant inliner  
 P420 - Store away from other materials

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Physical and Chemical Hazards**

Vapors may cause flash fire or explosion. Highly flammable. Self-heating; may catch fire. Combustible material. May be corrosive to metals. Reacts violently with water. Water reactive. Dust can form an explosive mixture with air.

**Health Hazards**

Corrosive. Causes skin and eye burns. Causes serious eye damage. Harmful if swallowed.

**Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Reacts violently with water. Is not likely mobile in the environment. Reacts with water. Reacts violently with water.

This product does not contain any known or suspected endocrine disruptors.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Sodium methoxide	124-41-4	>=96

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Sodium hydroxide	1310-73-2	< 2
Sodium carbonate	497-19-8	< 2

**SECTION 4. FIRST AID MEASURES****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation**

Remove to fresh air. 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. Immediate medical attention is required. If not breathing, give artificial respiration.

**Ingestion**

Do NOT induce vomiting. Call a physician or poison control center immediately.

**Most important symptoms and effects**

Causes burns by all exposure routes. 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

**Self-Protection of the First Aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Notes to Physician**

Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Dry chemical, soda ash, lime or sand.

**Extinguishing media which must not be used for safety reasons**

Water.

**Specific Hazards Arising from the Chemical**

Flammable. Corrosive material. Reacts violently with water. Risk of ignition. Dust can form an explosive mixture with air. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**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.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Remove all sources of ignition. Avoid dust formation. Take precautionary measures against static discharges. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

**Environmental Precautions**

Avoid release to the environment. See Section 12 for additional Ecological Information.

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**Methods for Containment and Clean Up**

Remove all sources of ignition. Do not expose spill to water. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Use spark-proof tools and explosion-proof equipment.

Refer to protective measures listed in Sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****Handling**

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

**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Keep away from water or moist air. Keep under nitrogen. Flammables area. Corrosives area.

**Specific Use(s)**

Use in laboratories

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters**

Component	China	Taiwan	Thailand	Hong Kong
Sodium hydroxide	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>

  

Component	ACGIH TLV	OSHA PEL	NIOSH	The United Kingdom	European Union
Sodium hydroxide	Ceiling: 2 mg/m <sup>3</sup>	(Vacated) Ceiling: 2 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup> STEL	

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

**Exposure Controls****Engineering Measures**

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

**Personal protective equipment**

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Neoprene	See manufacturers	-		(minimum requirement)

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recommendations

EN 374

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

<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>Large scale/emergency use</b>	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Particulates filter conforming to EN 143
<b>Small scale/Laboratory use</b>	Maintain adequate ventilation Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. <b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Light yellow	
<b>Physical State</b>	Powder Solid	
<b>Odor</b>	Odorless	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	13 (@ 20 )	5g/l aq.sol. (20°C)
<b>Melting Point/Range</b>	126 °C / 258.8 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point</b>	No information available	<b>Method -</b> No information available
<b>Evaporation Rate</b>	Not applicable	Solid
<b>Flammability (solid,gas)</b>	No information available	
<b>Explosion Limits</b>	<b>Lower</b> 7.3 <b>Upper</b> 36	
<b>Vapor Pressure</b>	50 mmHg @ 20 °C	
<b>Vapor Density</b>	Not applicable	Solid
<b>Specific Gravity / Density</b>	No data available	
<b>Bulk Density</b>	No data available	
<b>Water Solubility</b>	Reacts violently with water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Sodium methoxide	-0.75	
<b>Autoignition Temperature</b>	70 °C / 158 °F	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	Not applicable	Solid
<b>Explosive Properties</b>	No information available	

## Sodium methoxide

**Oxidizing Properties** No information available

**Molecular Formula** C H3 Na O  
**Molecular Weight** 54.02

## SECTION 10. STABILITY AND REACTIVITY

**Stability** Water reactive. Moisture sensitive. Air sensitive.

**Hazardous Reactions** Reacts violently with water.  
**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid** Temperatures above 65°C. Keep away from open flames, hot surfaces and sources of ignition. Exposure to air. Incompatible products. Exposure to moist air or water.

**Materials to avoid** Acids. Strong oxidizing agents. Metals.

**Hazardous Decomposition Products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Sodium oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

## Product Information

## (a) acute toxicity;

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium methoxide	1687 mg/kg ( Rat )	>2000 mg/kg ( Rat )	
Sodium hydroxide	LD50 = 325 mg/kg ( Rat )	LD50 = 1350 mg/kg ( Rabbit )	
Sodium carbonate	2800 mg/kg ( Rat )	> 2000 mg/kg (rabbit)	2.3 mg/l 2h (Rat)

(b) skin corrosion/irritation; Category 1 A

(c) serious eye damage/irritation; Category 1

## (d) respiratory or skin sensitization;

**Respiratory**  
**Skin**

Based on available data, the classification criteria are not met  
Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met  
There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

**Target Organs**

None known.

**Sodium methoxide**

**(j) aspiration hazard;** Not applicable  
Solid

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

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects** This product contains the following substance(s) which are hazardous for the environment. Reacts with water so no ecotoxicity data for the substance is available.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Sodium hydroxide	LC50: = 45.4 mg/L, 96h static (Oncorhynchus mykiss)	-	-	-
Sodium carbonate	Lepomis macrochirus: LC50: 300 mg/L/96h Gambusia affinis: LC50: 740 mg/L/96h	EC50: = 265 mg/L, 48h (Daphnia magna)		-

**Persistence and Degradability****Persistence****Degradability****Degradation in sewage treatment plant**

Reacts violently with water, Persistence is unlikely, based on information available. Decomposes in contact with water, Reacts with water. Water reactive. Neutralization is normally necessary before waste water is discharged into water treatment plants. No information available. Reacts violently with water.

**Bioaccumulative Potential**

Product does not bioaccumulate due to reaction with water; Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Sodium methoxide	-0.75	No data available

**Mobility in soil**

Reacts with water Reacts violently with water Is not likely mobile in the environment Is predicted to have low mobility in the environment

**Endocrine Disruptor Information****Persistent Organic Pollutant****Ozone Depletion Potential**

This product does not contain any known or suspected endocrine disruptors  
This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

**SECTION 13. DISPOSAL CONSIDERATIONS****Waste from Residues/Unused Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**Other Information**

Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with high pH-value must be neutralized before discharge.

**SECTION 14. TRANSPORT INFORMATION****Road and Rail Transport**

## Sodium methoxide

<b>UN-No</b>	UN1431
<b>Proper Shipping Name</b>	SODIUM METHYLATE MIXTURE
<b>Hazard Class</b>	4.2
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

IMDG/IMO

<b>UN-No</b>	UN1431
<b>Proper Shipping Name</b>	SODIUM METHYLATE MIXTURE
<b>Hazard Class</b>	4.2
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

IATA

<b>UN-No</b>	UN1431
<b>Proper Shipping Name</b>	SODIUM METHYLATE MIXTURE
<b>Hazard Class</b>	4.2
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

**Special Precautions for User** No special precautions required

## SECTION 15. REGULATORY INFORMATION

**International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
Sodium methoxide	X	X	X	X	204-699-5	X	X	X	X	X	X	KE-23196
Sodium hydroxide	X	X	X	X	215-185-5	X	X	X	X	X	X	KE-31487
Sodium carbonate	-	-	X	X	207-838-8	X	X	X	X	X	X	KE-31380

**National Regulations**

## SECTION 16. OTHER INFORMATION

<b>Prepared By</b>	Health, Safety and Environmental Department
<b>Creation Date</b>	29-May-2013
<b>Revision Date</b>	06-Sep-2025
<b>Revision Summary</b>	Not applicable.

**Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Chemical incident response training.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

## Sodium methoxide

Legend**CAS** - Chemical Abstracts Service**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**NZIoC** - New Zealand Inventory of Chemicals**WEL** - Workplace Exposure Limit**ACGIH** - American Conference of Governmental Industrial Hygienists**DNEL** - Derived No Effect Level**RPE** - Respiratory Protective Equipment**LC50** - Lethal Concentration 50%**NOEC** - No Observed Effect Concentration**PBT** - Persistent, Bioaccumulative, Toxic**TWA** - Time Weighted Average**IARC** - International Agency for Research on Cancer**PNEC** - Predicted No Effect Concentration**LD50** - Lethal Dose 50%**EC50** - Effective Concentration 50%**POW** - Partition coefficient Octanol:Water**vPvB** - very Persistent, very Bioaccumulative**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road**OECD** - Organisation for Economic Co-operation and Development**BCF** - Bioconcentration factor**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code**MARPOL** - International Convention for the Prevention of Pollution from Ships**ATE** - Acute Toxicity Estimate**VOC** - (Volatile Organic Compound)**Key literature references and sources for data**<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**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 Safety Data Sheet**