



# SODIUM METHOXIDE

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## 1. Product Identification

**Synonyms:** Sodium methylate; Methanol, Sodium Derivative; methanol, sodium salt; sodium methylate, dry

**CAS No.:** 124-41-4

**Molecular Weight:** 54.03

**Chemical Formula:** CH<sub>3</sub>NaO

**Product Codes:** 1930

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## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Methylate	124-41-4	90 - 100%	Yes

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## 3. Hazards Identification

### Emergency Overview

**DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. MATERIAL IS EXTREMELY DESTRUCTIVE TO THE UPPER RESPIRATORY TRACT, EYES AND SKIN. HARMFUL IF SWALLOWED OR INHALED. FLAMMABLE SOLID. POWERFUL REDUCING AGENT.**

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Health Rating: 3 - Severe

Flammability Rating: 4 - Extreme (Flammable)

Reactivity Rating: 3 - Severe (Water Reactive)

Contact Rating: 4 - Extreme (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD;  
PROPER GLOVES; CLASS D EXTINGUISHER

Storage Color Code: Red Stripe (Store Separately)

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### **Potential Health Effects**

#### **Inhalation:**

Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Symptoms may include irritation of the nose and throat, and labored breathing. May cause lung edema, a medical emergency.

#### **Ingestion:**

Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach. Can cause sore throat, vomiting, diarrhea. Abdominal spasms may occur.

#### **Skin Contact:**

Corrosive. Symptoms of redness, pain, and severe burn can occur.

#### **Eye Contact:**

Corrosive. Contact can cause blurred vision, redness, pain and severe tissue burns.

#### **Chronic Exposure:**

No information found.

#### **Aggravation of Pre-existing Conditions:**

No information found.

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## **4. First Aid Measures**

#### **Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

#### **Ingestion:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

#### **Skin Contact:**

Wipe off excess material from skin then immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

#### **Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

**Fire:**

Flammable Solid. Autoignition is possible in moist air. Reacts with light metals to form flammable hydrogen gas. Formation of methanol from water poses fire hazard.

**Explosion:**

Risk of explosion as a result of forming explosive vapors.

**Fire Extinguishing Media:**

Dry chemical, foam or carbon dioxide. NO HYDROUS EXTINGUISHING AGENTS.

Water causes ignition.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. DO NOT USE WATER. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

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## 7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. PROTECT FROM MOISTURE. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

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## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

**Appearance:** White powder.

**Odor:** Pungent odor.

**Solubility:** Decomposed by water.

**Specific Gravity:** No information found.

**pH:** No information found.

**% Volatiles by volume @ 21C (70F):** No information found.

**Boiling Point:** Not applicable.

**Melting Point:** > 149C (> 300F) Decomposes in air above 127C

**Vapor Density (Air=1):** No information found.

**Vapor Pressure (mm Hg):** No information found.

**Evaporation Rate (BuAc=1):** No information found.

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## 10. Stability and Reactivity

**Stability:**

Hydrolyzes into methanol and sodium hydroxide. A strong reducing agent.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Water, heat, chlorinated solvents, acids, strong oxidizing agents, and moist air.

**Conditions to Avoid:**

Moisture, heat, flame, ignition sources, air and incompatibles.

## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----			
--NTP Carcinogen--			
Ingredient	Known	Anticipated	IARC Category
Sodium Methylate (124-41-4)	No	No	None

## 12. Ecological Information

**Environmental Fate:** No information found.

**Environmental Toxicity:** No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

**Domestic (Land, D.O.T.)**

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**Proper Shipping Name:** SODIUM METHYLATE

**Hazard Class:** 4.2, 8

**UN/NA:** UN1431 Packing Group: II

**Information reported for product/size:** 100G

**International (Water, I.M.O.)**

Proper Shipping Name: SODIUM METHYLATE  
Hazard Class: 4.2, 8  
UN/NA: UN1431 Packing Group: II  
Information reported for product/size: 100G

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## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----  
Ingredient TSCA EC Japan Australia

Sodium Methylate (124-41-4) Yes Yes Yes Yes

-----\Chemical Inventory Status - Part 2\-----

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Ingredient Korea DSL NDSL Phil.

Sodium Methylate (124-41-4) Yes Yes No Yes

-----\Federal, State & International Regulations - Part 1\-----

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Ingredient RQ TPQ List Chemical Catg.

Sodium Methylate (124-41-4) No No No No

-----\Federal, State & International Regulations - Part 2\-----

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Ingredient CERCLA 261.33 8(d)

Sodium Methylate (124-41-4) 1000 No No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No

Reactivity: Yes (Pure / Solid)

**Australian Hazchem Code:** 2P

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: 3 Flammability: 3 Reactivity: 2 Other: **Water reactive**

**Label Hazard Warning:**

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT.  
MATERIAL IS EXTREMELY DESTRUCTIVE TO THE UPPER RESPIRATORY TRACT, EYES AND SKIN. HARMFUL IF SWALLOWED OR INHALED.  
FLAMMABLE SOLID. POWERFUL REDUCING AGENT.

**Label Precautions:**

Keep away from heat, sparks and flame. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Keep container closed and away from acids. Use only with adequate ventilation. Wash thoroughly after handling. Do not get wet. Unstable, explosive.

**Label First Aid:**

In case of contact, wipe off excess material from skin then immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. In all cases get medical attention immediately.

**Product Use:** Laboratory Reagent.

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