

I. Identification of substance:

<i>Product Details</i>	
Product name	Sodium methoxide
Synonyms	Sodium methylate; Methanol, Sodium Derivative; methanol, sodium salt; sodium methylate, dry
CAS No.	124-41-4
Molecular Weight	54.03
Chemical Formula	CH ₃ NaO

Manufacturer/Supplier:

Green Catalysts, Inc.
 55 Chipper Drive
 Kendall Park, NJ 08824
 Tel: (201) 506-9109

Emergency Information:

During normal hours the Research and Development Department. After normal hours call Chemtrec at (091) 040-2374-1677

II. Composition/Data on components:
Chemical characterization:
Description: (CAS#)

Sodium methoxide (CAS# 124-41-4):

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

III. Hazards identification:
Hazard Description:

T = Toxic

F = Highly flammable

Information pertaining to particular dangers for man and environment

R 11	Highly flammable
R 14	Reacts violently with water
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R 34	Causes burns
R 39/23/24/25	Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 2

Flammability = 3

IV. First aid measures

General information	<ul style="list-style-type: none"> - Immediately remove any clothing soiled by the product. - Remove breathing apparatus only after contaminated clothing has been completely removed. - In case of irregular breathing or respirator arrest provide artificial respiration.
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.
After skin contact	Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.
After eye contact	Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing	Do not induce vomiting; immediately call for medical help. Seek immediate medical advice.

V. Fire fighting measures

Suitable extinguishing agents	CO2, sand, extinguishing powder. DO NOT use water.
For safety reasons unsuitable extinguishing agents	Water
Special hazards caused by the material, its products of combustion or resulting gases	<ul style="list-style-type: none"> - Reacts violently with water - In case of fire, the following can be released: <ul style="list-style-type: none"> * Carbon monoxide and carbon dioxide * Sodium oxide
Protective equipment	<ul style="list-style-type: none"> - Wear self-contained respirator - Wear fully protective impervious suit

VI. Accidental release measures

Person-related safety precautions	<ul style="list-style-type: none"> - Wear protective equipment. Keep unprotected persons away. - Ensure adequate ventilation - Keep away from ignition sources
Measures for environmental protection	Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting	<ul style="list-style-type: none"> - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust) - Use neutralizing agent - Dispose contaminated material as waste according to item 13 - Ensure adequate ventilation - DO NOT flush with water or aqueous cleansing

VII. Handling and storage

<i>Handling</i>	
Information for safe handling	<ul style="list-style-type: none"> - Handle under dry protective gas - Keep container tightly sealed - Store in cool, dry place in tightly closed containers - Ensure good ventilation at the workplace - Open and handle container with care
Information about protection against explosions and fires	<ul style="list-style-type: none"> - Keep ignition sources away - Protect against electrostatic charges - Fumes can combine with air to form an explosive mixture

<i>Storage</i>	
Requirements to be met by storerooms and receptacles	Store in a cool location.
Information about storage in one common storage facility	<ul style="list-style-type: none"> - Store away from water/moisture - Store away from oxidizing agents - DO NOT store together with liquids
Further information about storage conditions	<ul style="list-style-type: none"> - Store under dry inert gas - Protect from humidity and water - Keep container tightly sealed - Store in cool, dry conditions in well sealed containers - Store under lock and key and with access restricted to technical experts or their assistants only

VIII. Exposure controls and personal protection

Additional information about design of technical systems	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute
<i>Personal protective equipment</i>	
General protective and hygienic measures	<p>The usual precautionary measure for handling chemicals should be followed:</p> <ul style="list-style-type: none"> - Keep away from foodstuffs, beverages and feed - Remove all soiled and contaminated clothing immediately - Wash hands before breaks and at the end of work - Store protective clothing separately - Avoid contact with the eyes and skin
Breathing equipment	Use suitable respirator when high concentrations are present
Protection of hands	<ul style="list-style-type: none"> - Impervious gloves - Check protective gloves prior to each use for their proper condition
Material of gloves	The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Eye protection	<ul style="list-style-type: none"> - Safety glasses - Tightly sealed goggles - Full face protection
Body protection	Protective work clothing

IX. Physical and chemical properties

Storage	
Form	Solid
Appearance & odor	White, crystalline powder with caustic odor.
<i>Change in condition</i>	
<i>Value/Range Unit Method</i>	
Melting point/Melting range	Not determined
Boiling point/Boiling range	Not determined
pH of 0.5% Aq. soln	14
Flash point	Not determined
Ignition Temp	50 °C
Danger of explosion	Product is not explosive. However, formation of explosive air/vapor mixtures is possible.
Decomposition Temp	> 126 °C, aprox
Bulk Density	0.5 - 0.6
Solubility in / Miscibility with Water	Reacts

X. Stability and reactivity

Thermal decomposition / conditions to be avoided	Decomposition will not occur if used and stored according to specifications.
Materials to be avoided	<ul style="list-style-type: none"> - Water/moisture - Oxidizing agents - Acids
Dangerous reactions	Reacts violently with water
Dangerous products of decomposition	<ul style="list-style-type: none"> - Carbon monoxide and carbon dioxide - Sodium oxide

XI. Toxicological information

On the skin	<ul style="list-style-type: none"> - Corrosive effect on skin and mucous membranes - Irritant to skin and mucous membranes
On the eye	<ul style="list-style-type: none"> - Strong corrosive effect - Irritating effect
Sensitization	No sensitizing effects known
Subacute to chronic toxicity	Symptoms of methanol overexposure may include intoxication, headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma and death. It is a defatting agent and can cause skin and eye irritation. Absorption through the skin is possible. Chronic exposure may cause liver and eye injury.
Subacute to chronic toxicity	Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss. Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus. May cause skin burns or irritation depending on the severity of the exposure.
Additional toxicological information	<p>To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.</p> <ul style="list-style-type: none"> - Danger through skin absorption - Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach - No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA, or ACGIH

XII. Ecological information

General Notes:

Do not allow material to be released to the environment without proper governmental permits.

XIII. Disposal considerations

<i>Product</i>	
Recommendation	Consult state, local or national regulations to ensure proper disposal

<i>Uncleaned packagings</i>	
Recommendation	Disposal must be made according to official regulations.
Recommended cleansing agent	Water, if necessary with cleansing agents.

XIV. Transport information

<i>DOT Regulations</i>	
Hazard class	4.2
Identification number	UN1431
Packing group	II
Hazardous substance	1000 lbs, 454 kg
Proper shipping name (technical name)	ALKOHOLATES SOLUTION, N.O.S (SODIUM METHOXIDE)

<i>Land transport ADR/RID (cross-border)</i>	
Hazard class	4.2
Danger code (Kemler)	48
UN-Number	1431
Packing group	II
Description of goods	1431
Proper shipping name (technical name)	ALKOHOLATES SOLUTION, N.O.S (SODIUM METHOXIDE)

Maritime transport IMDG

IMDG class	4.2
UN-Number	1431
Label	4.2
Packing group	II
Proper shipping name (technical name)	ALKOHOLATES SOLUTION, N.O.S (SODIUM METHOXIDE)

Air transport ICAO-TI and IATA-DGR

ICAO/IATA class	4.2
UN/ID Number	1431
Label	4.2
Packing group	II
Proper shipping name (technical name)	ALKOHOLATES SOLUTION, N.O.S (SODIUM METHOXIDE)

XV. Regulations

Product related hazard informations	
Hazard symbols	T = Toxic ; F = Highly flammable
Risk phrases	<p>11 - Highly flammable</p> <p>14 - Reacts violently with water</p> <p>23/24/25 - Toxic by inhalation, in contact with skin and if swallowed</p> <p>34 - Causes burns</p> <p>39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.</p>
Safety phrases	<p>7/8 - Keep container tightly closed and dry</p> <p>16 - Keep away from sources of ignition - NO SMOKING</p> <p>26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice</p> <p>36/37 - Wear suitable protective clothing and gloves</p> <p>43 - In case of fire, use powdered extinguishing agent. NEVER USE WATER</p> <p>45 - In case of accident or if you feel unwell, seek medical advice immediately</p>
National regulations	<ul style="list-style-type: none"> - All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. - All Components of this product are listed on the Canadian Domestic Substances List (DSL)
Information about limitation of use	<ul style="list-style-type: none"> - For use only by technically qualified individuals - This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372

XVI. Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS

Research and Development Department

Contact

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