



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont  
Material Safety Data Sheet

Page 1

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6228CR Niapure(R) Sodium Methylate 8-35% Solution  
Revised 24-JUN-2003  
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CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

Niapure(R) is a registered trademark of DuPont.

# Tradenames and Synonyms

8% Sodium Methylate  
15% Sodium Methylate  
25% Sodium Methylate  
30% Sodium Methylate  
Sodium Methylate, 8% Solution in Methanol  
Sodium Methylate, 15% Solution in Methanol  
Sodium Methylate, 25% Solution in Methanol  
Sodium Methylate, 30% Solution in Methanol  
Sodium Methylate  
Sodium Methoxide

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Chemical Solutions Enterprise  
1007 Market Street  
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515  
Transport Emergency : CHEMTREC 1-800-424-9300  
Medical Emergency : 1-800-441-3637

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COMPOSITION/INFORMATION ON INGREDIENTS  
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# Components

Material	CAS Number	%
Sodium Methylate	124-41-4	8-35
*Methyl Alcohol	67-56-1	65-92

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

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HAZARDS IDENTIFICATION  
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## Potential Health Effects

Skin contact can produce severe burns and ulceration of the skin. Methanol can permeate the skin in amounts capable of producing the effects of systemic toxicity.

Eye contact will result in eye corrosion or corneal or conjunctival ulceration. Contact may result in permanent damage to the eyes and even blindness.

Inhalation of concentrated mists, spray, or vapor may cause severe damage to the upper respiratory tract.

Inhalation, ingestion or skin contact with methanol may cause temporary mild depression of the central nervous system with dizziness, confusion, incoordination or drowsiness followed by an asymptomatic period usually ranging from 12 to 24 hours. Metabolic acidosis develops followed by ocular toxicity (visual disturbances including blindness). Other effects include non-specific effects such as headache, nausea and weakness.

Ingestion can cause extreme burns to mucous membranes of the mouth, throat, esophagus, and stomach. The fatal dose of methanol by ingestion is from 60 to 250 ml.

Gross overexposure to methanol may cause pathological changes in the liver and kidneys; nerve damage with numbness, weakness or muscle rigidity; tremor; convulsions; and fatality.

## Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

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FIRST AID MEASURES  
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## First Aid

## INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

## SKIN CONTACT

In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.

## (FIRST AID MEASURES - Continued)

## EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water, or activated charcoal mixture. Never give anything by mouth to an unconscious person. Call a physician.

## Notes to Physicians

Provide standard methanol ingestion treatment. Esophagoscopy may be indicated. Intravenous administration of an ethanol solution is an antidote for significant methanol ingestion. The blood ethanol level should be in the range of 1-1.5 mg/mL. Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

## NOTES TO PHYSICIAN

After ingestion, the patient may improve after the initial crisis but perforation of the gastrointestinal tract may occur 2-4 days later with severe abdominal pain, rigidity and tenderness of the abdomen and shock. Weeks to months later stricture of the esophagus may occur.

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FIRE FIGHTING MEASURES  
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## # Flammable Properties

## Sodium Methylate:

Flash Point: 12 C (54 F)  
Method: TCC  
Flammable Limits in Air, % by Volume:  
LEL: 7.3  
UEL: 36  
Autoignition: 470 C (878 F)

## Methanol:

Flash Point: 52 F  
Method: Closed Cup  
Flammable Limits in Air, % by Volume:  
LEL: 6  
UEL: 36

## (FIRE FIGHTING MEASURES - Continued)

Flammable liquid. Vapor forms explosive mixture with air. Vapors or gases may travel considerable distances to ignition source and flash back.

Caution! This product is a corrosive liquid which can explode. At ordinary temperatures, this product in methanol vapor, when mixed with air is explosive within certain limits. At high temperatures, which occur in open flames, this product decomposes to produce hazardous products of combustion.

## Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Water may be ineffective in fighting fires of liquids with low flash points, but water should be used to keep fire-exposed containers cool.

## Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Cool tank/container with water spray.

If leak or spill has not ignited, use water spray to disperse vapors and protect persons attempting to stop leak.

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ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

## Initial Containment

Remove source of heat, sparks, flame, impact, friction or electricity.

## Spill Clean Up

Discarded material is a RCRA Hazardous Waste.

## (ACCIDENTAL RELEASE MEASURES - Continued)

## Accidental Release Measures

Leaks should be stopped. Spills should be contained and cleaned up immediately. Large spills should be blanketed with alcohol foam to minimize fire hazards. Spills should be soaked up with compatible absorbent materials which should then be placed in approved containers, labeled, and stored in a safe place out of doors to await proper disposal. The spill area should then be flushed with water. All rinsate should be removed and placed in approved containers to await proper treatment or disposal. Spills on areas other than pavement, e.g., dirt or sand, may be handled by removing the affected soils and placing in approved containers. Vacuum trucks should not be used due to electrical ignition hazard.

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HANDLING AND STORAGE  
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## Handling (Personnel)

Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Wash clothing after use. Discard shoes if contaminated.

## Handling (Physical Aspects)

Keep away from heat, sparks and flames.

## Storage

Store in a well ventilated place. Store in a cool place. Keep container tightly closed. Do not store with organic chemicals and oxidizing agents.

Iron and steel are suitable metals for storage tanks. Atmosphere tanks should be located at least 100 feet from ignition sources, and pressure tanks at least 150 feet from ignition sources. All tanks should be grounded. Each tank should be equipped with a vent terminating outdoors and protected by a flame arrester. Vents should be sized according to the suggested Flammable Liquids Standard of the NFPA or any local governing ordinances. Ventilation should be provided.

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EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Engineering Controls

Keep container tightly closed. Use only with adequate ventilation.

Avoid contact with organic chemicals and oxidizing agents to avoid possible violent reaction.

## (EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

## Personal Protective Equipment

## EYE/FACE PROTECTION

Wear coverall chemical splash goggles. Additionally, wear a face shield where the possibility exists for face contact due to splashing or spraying of material.

## RESPIRATORS

Wear NIOSH approved respiratory protection, as appropriate.

## PROTECTIVE CLOTHING

Where there is potential for skin contact have available, and wear as appropriate, impervious gloves, apron, pants, jacket or full chemical suit.

## Exposure Guidelines

## Applicable Exposure Limits

## Methyl Alcohol

PEL (OSHA)	: 200 ppm, 260 mg/m <sup>3</sup> , 8 Hr. TWA
TLV (ACGIH)	: 200 ppm, 8 Hr. TWA, Skin STEL 250 ppm
AEL * (DuPont)	: 200 ppm, 8 & 12 Hr. TWA, Skin

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## # Physical Data

Boiling Point	: 86.7 C (188.1 F) @ 760 mm Hg
Vapor Pressure	: 96 mm Hg @ 20 C (68 F)
Vapor Density	: 1.1 (Air = 1)
Freezing Point	: -1.1 C (30 F)
Evaporation Rate	: 5.9 (Butyl Acetate = 1)
Solubility in Water	: Soluble
pH	: ~12 for 2% solution
Odor	: Alcohol odor
Form	: Liquid
Color	: Clear, water white
Specific Gravity	: 0.95

## (PHYSICAL AND CHEMICAL PROPERTIES - Continued)

The above information pertains to a 25% solution.

For 8% Solution:

Boiling Point : 65.5 C  
Vapor Pressure : 121.72 mm Hg @ 25 C  
pH : ~10  
Specific Gravity : 0.85

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable at normal temperatures and storage conditions.

## Incompatibility with Other Materials

Avoid contacting this product with moisture, heat, sources of ignition, organic chemicals and oxidizing agents. Considerable heat is generated when water is added to this product. This product reacts violently or explosively with many organic chemicals and oxidizing agents.

## Decomposition

This product will react with moisture in air to produce sodium hydroxide, sodium carbonate and sodium formate. At high temperatures this product in methanol will decompose producing hazardous products of combustion including carbon monoxide and formaldehyde.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

## METHANOL

Inhalation 1 hour LC50: >145,000 ppm in rats  
Dermal LD50 : 15,840 mg/kg in rabbits  
Oral LD50 : 9100 mg/kg in rats

Animal testing indicates Methyl alcohol is an eye and skin irritant.

Eye contact with Methyl alcohol caused clouding of the eye (corneal opacity).

Repeated skin contact with higher concentrations of Methyl

## (TOXICOLOGICAL INFORMATION - Continued)

alcohol caused some mortality.

Single exposure by ingestion caused narcosis, liver effects and hypothermia. Repeated exposure caused pathological changes of the eyes and acidosis.

Exposure of pregnant rats resulted in reduced birth weight, bone abnormalities and behavioral abnormalities. Exposure of pregnant mice resulted in reduced birth weight, resorption and bone abnormalities. Tests have shown that Methyl alcohol does not cause genetic damage in bacterial or mammalian cell cultures or in animals.

No adequate animal data are available to define reproductive toxicity.

## SODIUM METHYLATE

Oral LD50: 2037 mg/kg in rats

Because of the compound's known corrosivity in humans, it is untested for skin and eye irritancy, and for animal sensitization. Repeated oral dosing produced nonspecific effects such as weight loss, and irritation.

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ECOLOGICAL INFORMATION  
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## Ecotoxicological Information

## Aquatic Toxicity

96 hour LC50, fathead minnow: 28,100 mg/L for methanol

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DISPOSAL CONSIDERATIONS  
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## Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

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TRANSPORTATION INFORMATION  
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## Shipping Information

DOT/IMO/IATA  
Proper Shipping Name : Sodium Methylate Solution  
Hazard Class : 3  
UN No. : 1289  
Packing Group : II  
Subsidiary Hazard Class : 8

## (TRANSPORTATION INFORMATION - Continued)

Reportable quantity : 1000 lbs. (Sodium Methylate); 5000 lbs.  
(Methyl Alcohol)  
Label(s) : Flammable Liquid, Corrosive

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REGULATORY INFORMATION  
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## U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : Yes  
Fire : Yes  
Reactivity : Yes  
Pressure : No

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OTHER INFORMATION  
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## NFPA, NPCA-HMIS

NPCA-HMIS Rating  
Health : 3  
Flammability : 4  
Reactivity : 2

Personal Protection rating to be supplied by user depending on use conditions.

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The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsible for MSDS : MSDS Coordinator  
> : DuPont Chemical Solutions Enterprise  
Address : Wilmington, DE 19898  
Telephone : (800) 441-7515

# Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS