



MATERIAL SAFETY DATA SHEET

according to the Global Harmonized System

Date of issue: 08/24/2012

Version 1.0

SECTION 1. Identification

Product identifier

Product number 109626
Product name Benzyl alcohol for analysis EMSURE®

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

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United States of America | SDS Phone Support: +1-978-715-1335 |
General Inquiries: +1-978-751-4321 | Monday to Friday, 9:00 AM to
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+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Acute toxicity, Category 4, Inhalation, H332
Acute toxicity, Category 4, Oral, H302

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word
Warning

Hazard Statements

H332 Harmful if inhaled.
H302 Harmful if swallowed.

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Precautionary Statements

P271 Use only outdoors or in a well-ventilated area.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula	C ₆ H ₅ CH ₂ OH	C ₇ H ₈ O (Hill)
CAS-No.	100-51-6	
Molar mass	108.14 g/mol	
Remarks	WHMIS hazardous composition: No ingredients are hazardous according to the CPR criteria.	

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician. Keep respiratory tract clear.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Prevent vomiting if possible. Subsequently administer: activated charcoal (20 - 40 g in 10% slurry). Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

irritant effects, Cough, Shortness of breath, respiratory arrest, Drowsiness, Unconsciousness, inebriation, agitation, Diarrhea, Nausea, Vomiting, Headache, Convulsions, CNS disorders

Indication of any immediate medical attention and special treatment needed

Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO₂), Foam, Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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Special hazards arising from the substance or mixture

Combustible material, Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters

Special protective equipment for fire-fighters
In the event of fire, wear self-contained breathing apparatus.

Further information

Cool closed containers exposed to fire with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed.

Store at +15°C to +25°C (+59°F to +77°F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Contains no substances with occupational exposure limit values.

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

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Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended:

full contact:

Glove material:	butyl-rubber
Glove thickness:	0.7 mm
Break through time:	> 480 min

splash contact:

Glove material:	Viton (R)
Glove thickness:	0.70 mm
Break through time:	> 120 min

Respiratory protection

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	characteristic
Odor Threshold	No information available.
pH	No information available.
Melting point	4.5 °F (-15.3 °C)
Boiling point/boiling range	401 °F (205 °C) at 1,013 hPa
Flash point	214 °F (101 °C) DIN 51758
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.

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Lower explosion limit	1.3 %(V)
Upper explosion limit	13 %(V)
Vapor pressure	0.03 hPa at 68 °F (20 °C)
Relative vapor density	3.72
Relative density	1.05 g/cm ³ at 68 °F (20 °C)
Water solubility	40 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	log Pow: 1.10 (experimental) (Lit.) Bioaccumulation is not expected (log Pow <1).
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	6.57 mPa.s at 68 °F (20 °C)
Ignition temperature	815 °F (435 °C) DIN 51794

SECTION 10. Stability and reactivity

Reactivity

Forms explosive mixtures with air on intense heating.

Chemical stability

Sensitivity to light

Sensitive to air.

Possibility of hazardous reactions

Risk of explosion with:

nonmetallic halides

Exothermic reaction with:

Oxidizing agents, conc. sulfuric acid, polymerization initiators, hydrogen bromide, Iron

Conditions to avoid

Strong heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Incompatible materials

various plastics

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Hazardous decomposition products
no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact

Acute oral toxicity

LD50 rat: 1,230 mg/kg (IUCLID)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract., Vomiting, Diarrhea

absorption

Acute inhalation toxicity

LC50 rat: ca. 8.8 mg/l; 4 h (IUCLID)

Symptoms: mucosal irritations, Cough, Shortness of breath, absorption

Acute dermal toxicity

LD50 rabbit: 2,000 mg/kg
(RTECS)

absorption

Skin irritation

rabbit

Result: No irritation

OECD Test Guideline 404

Eye irritation

rabbit

Result: slight irritation

OECD Test Guideline 405

Genotoxicity in vitro

Ames test

Result: negative

(IUCLID)

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

After absorption:

Systemic effects:

Nausea, Headache, agitation, inebriation, CNS disorders, respiratory arrest, Convulsions, Drowsiness, Unconsciousness

Chronic intoxication:

Damage to:

Cardiac

Further data:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish

LC50 *Lepomis macrochirus* (Bluegill sunfish): 10 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 *Tetrahymen pyriformis*: 854 mg/l; 48 h (ECOTOX Database)

EC50 *Daphnia magna* (Water flea): 400 mg/l; 24 h (IUCLID)

Toxicity to algae

IC5 *Scenedesmus quadricauda* (Green algae): 640 mg/l; 96 h (IUCLID)

Toxicity to bacteria

EC50 *Photobacterium phosphoreum*: 71.4 mg/l; 30 min (IUCLID)

Persistence and degradability

Biodegradability

Readily biodegradable.

92 - 96 %; 28 d

OECD Test Guideline 301C

Biochemical Oxygen Demand (BOD)

1,550 mg/g (5 d)

(Lit.)

Theoretical oxygen demand (ThOD)

2,515 mg/g

(IUCLID)

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Ratio BOD/ThBOD

BOD5 62 %
(Lit.)

Ratio COD/ThBOD

96 %
(Lit.)

Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: 1.10
(experimental)
(Lit.) Bioaccumulation is not expected (log Pow <1).

Mobility in soil

No information available.

Other adverse effects

Additional ecological information

Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

Canada

WHMIS Classification

Not controlled under WHMIS (Canada).

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Notification status

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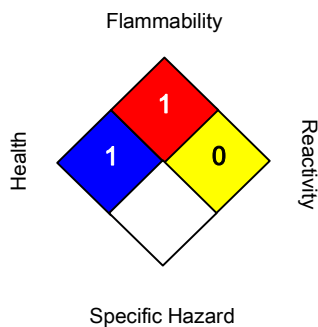
Version 1.0

TSCA: On TSCA Inventory

DSL: All components of this product are on the Canadian DSL list.

SECTION 16. Other information

National Fire Protection Association (U.S.A)



Training advice

Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
H332 Harmful if inhaled.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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