

SAFETY DATA SHEET (SDS)

Ethanol Anhydrous

01. Product and Company Identification

Product Identifier:

Trade Name: Ethanol, Anhydrous
Chemical Name: Reagent Alcohol
Catalog Number: 35064214, 34064251
Part of Kits: 35061126, 35062611, 35060944, 35061011, 35060952
Use of chemical: Laboratory chemical

Identification of Manufacturer:

Manufacturer/Supplier: Biochemical Diagnostics, Inc.
 180 Heartland Blvd., Edgewood, NY 11717
 Phone: (631) 595-9200 | Fax: (631) 595-9204
Emergency telephone number: (800) 255-3924

02. Hazard(s) Identification

Classification of substance or mixture:

Flammable liquids (Category 2)
Highly flammable liquid and vapor
 Skin irritation (Category 2) / Eye irritation (Category 2B)
Causes skin irritation. May cause respiratory irritation. Causes eye irritation.
 Specific target organ toxicity – single exposure (Category 3)

Label elements:

Hazard pictograms



Flammable Irritant

Signal word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation. H320 Causes eye irritation.
 H335 May cause respiratory irritation.

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P233 Keep container tightly closed.
 P271 Use in a well-ventilated area or outdoors.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P304+340 IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P302+352 IF ON SKIN Wash with soap and water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 2
 Fire = 3
 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 2
 Fire = 3
 Reactivity = 0

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03. Composition/information on ingredients

Chemical Characterization: Mixture

CAS No. Description: N/A to mixtures

Formula: Mixture of: Mixture Ethyl Alcohol 90-95%
Methyl Alcohol and Isopropyl Alcohol 1-5%
 $C_2H_5OH + C_3H_7OH + CH_3OH$

04. First aid measures

Description of first aid measures:

Inhalation: Remove to fresh air. If not breathing give artificial respiration.
If breathing is difficult give oxygen.

Ingestion: May be harmful if swallowed in large quantity. Rinse mouth with water.
Seek medical attention.

Skin Contact: Wash immediately with soap and water. Can cause irritation.

Eye Contact: Rinse with copious amounts of water, for at least 15 minutes.
Seek medical attention. May cause blindness.

05. Firefighting measures

Extinguishing media: Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide. Water may be ineffective.

Special Fire Fighting Procedures: Wear proper protective equipment w/Self contained breathing apparatus.

Unusual Fire and Explosion Hazards: Flammable Liquid and vapor.
Dangerous fire hazard when exposed to heat of flame.

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06. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep unprotected persons away. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions:

Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust) and remove.

Waste Disposal Method:

Dispose in accordance with state, local and federal regulations

07. Handling and storage

Handling:

Precautions for safe handling: No special precautions are necessary if used correctly.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

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Conditions for safe storage, including any incompatibilities:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Further information about storage conditions: Keep receptacle tightly sealed. Store in cool, dry conditions in well-sealed receptacles.

08. Exposure controls/ personal protection

Exposure Controls:

Control parameters:

Components with limit values that require monitoring at the workplace:

64-17-5 Ethanol

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1880 mg/m³, 1000 ppm

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Eye Protection:



Tightly sealed goggles

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

Protection of Hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Respiratory Protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Ventilation: Keep vapor levels as low as possible, use adequate general or local exhaust.

09. Physical and chemical properties

Appearance:

Form: Liquid

Color: Colorless

Odor: Mild pleasant, whiskey like odor

pH: no information found

Melting Point: -114°C/ -173°F (ethanol)

Boiling Point: 78°C/ 172°F (ethanol)

Flash Point: 13°C (55°F)

Ignition temperature: 425°C (797°F)

Explosion limits: Lower: 3.5 Vol %

Upper: 15 Vol %

Vapor Pressure @ 19°C: 40 mm Hg

Specific Gravity @ 20°C (68°F): 0.79 g/cm³

Vapor Density: 1.6 (ethanol), Air=1

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Percent Volatile: 100%
Evaporation Rate: N/A
Flammable Limits in air % by volume: Lel: 3.3 Uel: 19
Solubility in/ Miscibility with Water@20°C: 1 g/L

10. Stability and reactivity

Stability: Stable

Incompatibility: Strong oxidants, silver salts, acid chlorides, alkali metals, metal hydrides, hydrazine, and many other substances.

Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

Hazardous Polymerization: Will not occur

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

11. Toxicological information

Acute toxicity:

LD/LC₅₀ values that are relevant for classification:

Oral LD₅₀ 7060 mg/kg (rat)

Inhalation LC₅₀/4 h 20000 mg/l (rat)

Potential health effects:

On the skin: Irritant to skin and mucous membranes.

On the eye: Serious irritating effect.

Sensitization: No sensitizing effects known.

12. Ecological information

Toxicity: LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 96 h): 12,000 – 16,000 mg/l Mortality

LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 13,480 mg/l Mortality

LC 50 (Carp (*Leuciscus idus melanotus*), 48 h): 8,140 mg/l Mortality

EC 50 (Water flea (*Daphnia obtusa*), 48 h): 10,100 - 11,200 mg/l Intoxication

LC 50 (Brine shrimp (*Artemia franchiscana*), 48 h): 25.5 mg/l Mortality

LC 50 (Water flea (*Daphnia magna*), 48 h): 7,560 - 12,600 mg/l Mortality

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: The product is water soluble and may spread in water systems.

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

13. Disposal considerations

Waste treatment methods

Product:

Dispose of in accordance with local, state and federal regulations.

Contaminated packaging:

Disposal must be made according to official regulations.

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14. Transport Information
UN Number: 1987
UN proper shipping name: Alcohols, n.o.s. (Ethanol, Isopropanol)
Transport hazard class(es): 3
Packing group: II
Environmental hazards: None
Special precautions None

15. Regulatory Information
SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

16. Other Information
Revision B, June 2015

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