

**MSDS****Material Safety Data Sheet**

24 HOUR EMERGENCY  
TELEPHONE NUMBER  
**CALL CHEMTREC**  
**1-800-424-9300**

189 Twin County Road • Morgantown, PA 19543 • (610) 524-5810

**REAGENT ALCOHOL, 50% v/v**  
**MATERIAL SAFETY DATA SHEET**

Date Issue: January 10, 2007

The following information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

**Product Identification**

**Product Name:** Reagent Alcohol  
**Ever Scientific Product Codes:** ES746, ES747, ES748, ES859  
**Product Description:** A solution water in reagent alcohol.

<b>Health</b>	4
<b>Flammability</b>	2
<b>Reactivity</b>	1
<b>Physical Hazard</b>	None

**Section 1 - Shipping Data**

**DOT Shipping Name:\*** Ethanol solution  
**DOT Hazard Class:** 3  
**DOT Identification:** UN1170

**Tel. # for information:** (610) 524-5810  
**Emergency Tel. #:** (800) 424-9300  
**Prepared by:** P.B.

**Section 2 - Hazardous Ingredients / Identity Information**

CHEMICAL COMPONENTS	CAS#	%	OSHA PEL	ACGIH TLV
Ethanol	64-17-5	45% v/v	1000 ppm	1000 ppm
Isopropanol	67-63-0	2.5% v/v	400 ppm	400 ppm
Methyl alcohol	67-56-1	2.5 % v/v	200 ppm (skin)	200 ppm (skin)

**Section 3 - Physical / Chemical Characteristics**

<b>Boiling Point:</b>	189°	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	0.93
<b>Vapor Pressure (mm Hg and Temperature):</b>	40@ 19°C	<b>Evaporation Rate ( ethanol= 1):</b>	1
<b>Vapor Density (AIR=1):</b>	1.5	<b>Solubility in Water:</b>	complete

**Appearance and Odor:** Clear colorless solution with the characteristic odor of alcohol.

#### Section 4 - Fire and Explosion Hazard Data

**Flash Point (Method Used):** 79° F (TOC)                      **Flammability Limits:** (for ethanol) LEL 3% UEL 19%

**Extinguishing Media:** Alcohol foam, carbon dioxide or dry chemical

**Special Fire Fighting Procedures:** Water is ineffective against alcohol fires but may be used to cool adjacent containers.

**Unusual Fire and Explosive Hazards:** Pyrolysis will release toxic gases such as carbon monoxide and methanol.

#### Section 5 - Reactivity Data

**Stability:** Stable    **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Store away from oxidizers.

**Precautions to be taken in Handling and Storage:** Store at room temperature.

#### Section 6 - Health Hazard Data

<b>Routes of Entry</b>	<b>Inhalation?</b> yes	<b>Skin Absorption?</b> yes	<b>Ingestion?</b> yes
<b>Carcinogenicity?</b> no	<b>NTP?</b> no	<b>IARC Monographs?</b> no	<b>OSHA Regulated?</b> yes

**Health Hazards (Acute and Chronic):** Methanol is a cumulative poison and death has been reported for ingestion of less than 30 milliliters. Causes CNS depression, headache, intoxication, dilation of the pupils, convulsions, nausea, and dizziness. Unconsciousness and death may result. Methanol intoxication may produce visual disturbances and blindness.

**Signs and Symptoms of Exposure:** Symptoms of overexposure include; CNS disturbance, dizziness, photophobia, headache, stupor, coma and death.

**Medical Conditions Generally Aggravated by Exposure:** Impaired kidney and liver function may be aggravated by exposure to alcohols. Pre-existing eye, skin, and respiratory conditions may also be aggravated. Methanol has shown genetic toxicity in some animals.

**Emergency and First Aid Procedures:**

**Eye Contact:** Flush with water at least 15 minutes and get medical attention.

**Skin contact:** Remove contaminated clothing and flush with water. Get medical attention if irritation persists.

**Ingestion:** **Do not induce vomiting if patient is unconscious or extremely drowsy. Otherwise administer 2 glasses of water and induce vomiting. Get immediate medical attention even if symptoms improve.**

#### Section 7 - Precautions For Safe Handling and Use

**Steps to be Taken In Case of Spill Or Release:** Remove all sources of ignition, absorb with a suitable absorbent (such as paper towels) and dispose.

**Waste Disposal Methods:** The preferred disposal method is incineration. Many localities restrict the amount of alcohol that can be flushed down the drain. Insure compliance with all government regulations.

#### Section 8- Control Measures

**Respiratory Protection (Specify Type):** Generally not needed.

**Ventilation:** Chemical hoods are recommended for handling methanolic solutions.

**Protective Gloves:** Plastic or rubber gloves impervious to methanol are recommended.

**Eye Protection:** Laboratory safety goggles or similar products are recommended.

**Other Protective Clothing And Equipment:** Usually not required.

**Hygienic Work Practices:** Wash well after handling, especially before eating and smoking.

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