



MATERIAL SAFETY DATA SHEET

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MSDS No.
Effective Date:

9513100
9513101 9513104
9513106 9513107
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SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Universal pH Indicator	CHEMTREC 1-800-424-9300 NFPA HAZARD RATING Minimal Slight Moderate Serious Severe 0 1 2 3 4 WHMIS
Chemical Synonyms	N/A	
Formula	Mixture.	
CAS No.	Mixture.	

SECTION II DANGEROUS INGREDIENTS

Name	%	TLV Units
Ethyl alcohol, denatured*: (CAS No. 64-17-5)	69.5%	TWA: 1000 ppm
Water: (CAS No. 7732-18-5)	30.5%	None established.
DANGER! FLAMMABLE!		

SECTION III PHYSICAL DATA

Melting Point (°C)	-114°C (-173°F)**	Specific Gravity (H ₂ O = 1)	0.7919 - 0.7955 @ 60/60°F**
Boiling Point (°C)	74-80°C (165.2-176°F)**	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	Ca 50 @ 20°C**	Evaporation Rate (n-Butyl Acetate =1)	Ca. 2**
Vapor Density (Air=1)	Ca 1.5**		
Solubility in Water	Complete.		
Appearance & Odor	Green liquid; mild characteristic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash point	(21°C) 70°F**	Flammable Limits in Air % by Volume Pure Ethyl Alc.	Lower 4.0% (V)**	Upper 20.0% (V)**
Firefighting Procedures	Flammable liquid, soluble or dispersed in water. Use dry chemicals, CO ₂ , alcohol foam or water spray.			

* Denaturants:

Methyl alcohol: (CAS No. 67-56-1)...TWA: 200 ppm; STEL: 250 ppm, Methyl isobutyl ketone: (CAS No. 108-10-1)...TWA: 50 ppm; 75 ppm, Isopropyl alcohol: (CAS No. 67-63-0)...TWA: (400 ppm); STEL: (500 ppm)

**For Ethyl Alcohol, 200 Proof

Flammability and Explosion Hazards

Vapors formed from this product are heavier than air and may travel along the ground to a distant source of ignition and flash back instantly. Fire or excessive heat may produce hazardous decomposition products to be produced as dust or fume.

Autoignition Temperature: 400°C

TDG Class 3 Flammable liquid. UN1170

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. For laboratory use only. Not for drug, food or household use. Keep out of reach of children. Printed on recycled paper.

SECTION V REACTIVITY DATA

UU0010

Chemical Stability	Yes	X	If no, under what conditions?
	No		
Incompatible with Other products	Yes	X	Strong oxidizing agents, inorganic acids and halogens.
	No		
Hazardous Decomposition Products	These products are carbon oxides.		
Reactive under what conditions	Slightly reactive to reactive with oxidizing agents, acids.		

SECTION VI TOXICOLOGICAL PROPERTIES

Route of Entry	Ingestion. Inhalation.
TLV	TWA: 1000 (ppm) from ACGIH. **
Toxicity for animals	Acute oral toxicity (LD50): 7060 mg/kg (rat). ** Acute toxicity of the vapor (LC50): 8000 ppm (rat). **
Chronic effects on humans	The substance is toxic to the nervous system, the reproductive system. Repeated or prolonged exposure to the substance can produce target organ damage. Target organs: Eyes, central nervous system, liver, kidneys.
Acute effects on humans	Very dangerous in case of skin contact (irritant). Slightly dangerous to dangerous in case of eye contact (irritant). Very slightly to slightly dangerous in case of skin contact (permeator), of ingestion, of inhalation.

SECTION VII PREVENTIVE MEASURES

Waste Disposal	Discharge, treatment, or disposal may be subject to local laws. Consult your local or regional authorities.
Storage	Flammable materials should be stored in a separate safety storage cabinet or room. Keep container tightly closed. Keep in a cool, well ventilated place. Ground all equipment containing material.
Precautions	Keep away from heat. Keep away from sources of ignition. Do not breathe gas, fumes, vapor or spray. If ingested, seek medical advice immediately. Keep away from incompatibles as oxidizing agents.
Spill or leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Protective Clothing	Splash goggles. Lab coat. Vapor respirator.

SECTION VIII FIRST AID MEASURES

Specific first aid measures	Ingestion: Call physician or Poison Control Center immediately. Induce vomiting only if advised by the appropriate medical personnel. Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention. Skin contact: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Inhalation: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Allow victim to rest in a well ventilated area. Seek immediate medical attention.
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SECTION IX PREPARATION OF THE MSDS

Rev. No. 5 Date January 25, 2007 Approved James A. Bertsch