

**Product Identification**

Chemical Name and Synonyms	Ethanol
Chemical Family	Alcohol
Chemical Formula	C <sub>2</sub> H <sub>6</sub> O
Product Use	Cleaning agent
Manufacturer's Information Microbex, Division of Alliance H. Inc. 22A – 4630 Dufferin St. Toronto, ON M3H 5S4 416-391-1700	

**Physical Data**

Physical State	Liquid
Odour / appearance	Colourless with characteristic alcohol odour
Odour Threshold (ppm)	Not available
Vapour Pressure (mmHg)	Not available
Vapour Density (Air = 1)	Not available
Evaporation Rate (g/m <sup>2</sup> )	Not available
Boiling Point (°C)	78.5
Freezing Point (°C)	Not available
pH	6 - 8
Specific Gravity (Water=1)	0.788
Coefficient of water/oil distribution	Not available

**Shipping Description**

Shipping Name	Ethyl Alcohol
T.D.G. Class	3
P.I.N.	UN 1170
Pkg. Group	II

**Hazard Rating (NFPA-704-M)**

Fire	3
Reactivity	0
Toxicity	1
Special	Not applicable
WHMIS Class	D, 2B
Emergency	CANUTEC 613-996-6666

**List of Hazardous Ingredients**

Ingredients	%	LD 50 (oral, rat) mg/kg	CAS No.
Ethanol	90 -100	1000 ppm	64-17-5

**Reactivity Data**

Chemical Stability	Stable
Incompatibility with other substances	Oxidizing materials
Conditions for Reactivity	Sources of ignition
Hazardous Decomposition Products	Not available

**Fire and Explosion Data**

Flammability	Flammable
Extinguishing Media	Alcohol-type or all-purpose foam
Flash Point (method used)	Not available
Autoignition Temperature	4.22°C
Upper Flammable Limit (% by volume)	19.0
Lower Flammable Limit (% by volume)	3.3
Hazardous Combustion Products	CO and/or CO <sub>2</sub>
Sensitivity to Impact	Not available
Sensitivity to Static Discharge	Sensitive
<b>Special Fire Hazards</b> Vapours may travel with air currents and be ignited in locations distant from handling point.	

**Toxicological Properties and Health Data**

<i>Toxicological Data</i>	
LD <sub>50</sub>	7060 mg/kg. Rat, oral
LC <sub>50</sub>	31623 ppm/ 4 hours, rat, inhalation
<i>Effects of Acute Exposure to Product</i>	
<b>Ingestion</b> Drowsiness, nausea, cramps, diarrhea. Unconscious and death with large doses.	
<b>Eye Contact</b> Severe eye irritant. Causes conjunctivitis	
<b>Skin Contact</b> Mild irritant	
<b>Inhalation</b> Mild irritation or respiratory tract above 400 ppm; drowsiness and narcosis at higher concentrations	
<b>Special Notes</b>	Not applicable
<i>Effects of Chronic Exposure to Product</i>	
<b>Skin</b>	May lead to drying and cracking
<b>Carcinogenicity</b>	Not available
<b>Teratogenicity</b>	Not available
<b>Reproductive Effects</b>	Not available
<b>Mutagenicity</b>	Not available
<b>Synergistic Product</b>	Not available
<b>Irritancy to Product</b>	Not available
<b>Sensitization to Product</b>	Not available
<b>Special Notes</b>	Not available

**First Aid**

<b>Ingestion</b> DO NOT INDUCE VOMITING. If conscious, give victim a glass of water. If vomiting, lean victim forward. Seek medical help	
<b>Eye Contact</b> Flush with plenty of water	
<b>Skin Contact</b> Flush with plenty of water. If irritation develops, contact physician	
<b>Inhalation</b> Remove to fresh air. Start cardiopulmonary resuscitation if necessary. Seek medical help	
<b>Notes to Physician</b>	Not applicable

**Preventive Measures**

<b>Engineering Controls</b> Mechanical ventilation should be non-sparking, grounded and separate from other exhaust systems.	
<b>Respiratory Protection</b> Not normally required if good ventilation is maintained.	
<b>Eye Protection</b> Protective eye wear	
<b>Skin Protection</b> Household type rubber gloves	
<b>Other Personal Protective Equipment</b> Eye wash	
<b>Leak / Spill Procedure</b> Provide adequate ventilation. Remove sources of ignition. Collect in suitable container or absorb onto absorbent for subsequent disposal.	
<b>Waste Disposal</b> In accordance to local regulations	
<b>Handling Procedures and Equipment</b> Local exhaust recommended when handling. Keep container closed when not in use. Prevent static electricity when transferring. Avoid eye contact.	
<b>Storage Requirements</b> Keep away from heat, sparks and flames	
<b>Special Notes</b>	Not available

**Preparation Information**

<b>Date Reviewed</b>	2009 June 30
<b>Prepared by</b>	Microbex Technical Staff

*Microbex believes that the information contained herein is reliable and accurate. Microbex makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such information is solely for your consideration, investigation and verification.*