
1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Ethanol
Synonyms	Ethyl alcohol
Grade	ACS, HPLC
Company	Anaqua Chemicals Supply Inc. 1510 Eldridge Parkway, Suite 110-268 Houston, TX 77077, USA
Telephone	(281) 668-0032
Fax	(281) 668-0033

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula	C ₂ H ₆ OH
CAS-No.	64-17-5
Index-No.	603-002-00-5
Ec-No.	200-578-6
Concentration	> 95 %

3. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquid Category 2

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable.

4. FIRST AID MEASURES

Inhalation	If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Rinse mouth with water. Consult a physician immediately.
Skin Contact	Immediately wash off with plenty of water for at least 15 minutes. Consult a physician.
Eye Contact	Rinse through with plenty of water for at least 15 minutes. Consult a physician.

Most important symptoms and effects, both acute and delayed

Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment neededno data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during fire fighting	No information available
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fighting if necessary. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective clothing and ventilation equipments. Avoid breath in vapors, mist or gas. Ensure adequate ventilation.
Environmental precautions	Do not release into drains.
Methods for cleaning up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Handling	Avoid breath in vapors, mist or gas. Avoid contact with skin and eye. Keep away from hot surface, open fire and any sources of ignition. Take measures against electrostatic charge.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from source of ignition. Keep upright to prevent leakage. Hydroscopic.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational exposure controls

Engineering Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
----------------------	--

Personal protective Equipment

Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Skin protection	Wear appropriate protective gloves.
Eye/face protection	Tightly fitting safety glasses.
Body protection	Protective clothes should be selected specifically for the work place according to concentration and quantity of the chemical handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Colorless
pH	No data available
Oxidizing properties	No data available
Melting point	-114 °C (-173.2 °F)
Boiling point	78 °C (172.4 °F)
Flash point	14.0 °C (39.2 °F)-closed cup
Autoignition temperature	363 °C (685.4 °F)
Lower explosion limit	3.3 % (V)
Upper explosion limit	19 % (V)
Vapor pressure	59.5 hPa at 20.0 °C (68.0 °F)
Relative density	0.789 g/ml at 25 °C
Water solubility	Completely soluble
Partition coefficient: n-octanol/ water	No data available
Molecular weight	46.07

10. STABILITY AND REACTIVITY

Storage stability	No information available
Conditions to avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to avoid	Alkali metals, Ammonia, Oxidizing agents, Peroxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity	LD50 Oral 7,060 mg/kg (Rat) Remarks: Lungs, Thorax, or Respiration: Other changes. LC50 Inhalation 20,000 ppm (Rat) 10 h
Skin corrosion/irritation	Skin irritation (Rabbit) 24 h
Eye irritation	Mild eye irritation (Rabbit) 24 h – Draize Test
Carcinogenicity	Carcinogenicity – mouse- Oral (Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease.) IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	Reproductive toxicity – human – female - Oral Effects on Newborn: Apgar score (human only). Other neonatal measures or effects. Drug dependence. Headache, Dizziness, Drowsiness, Blindness if swallowed.
Specific target organ toxicity – single exposure	Inhalation – May cause respiratory irritation
Potential health effects	Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Ingestion: Harmful if swallowed. Skin: Harmful if absorbed through skin. Causes skin irritation. Eyes: Causes eye irritation. Central nervous system depression, narcosis, Damage to heart., To the best of our knowledge, the
Symptoms of Exposure	chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity to fish	LC50 – 13,000.00 mg/l (Oncorhynchus mykiss (rainbow trout)) 96 h LC50 – 10,400.00 mg/l (Oncorhynchus mykiss (rainbow trout)) 96 h LC50 – 15,300.00 mg/l (Pimephales promelas (fathead minnow)) 96 h LC50 –10,000.00 mg/l (other fish) 24 h
Persistence and degradability	No available information
Bioaccumulative potential	No available information
Results of PBT and vPvB assessment	No available information
Mobility in soil	No available information

13. DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with afterburner and scrubber but exert extra care in igniting as this is highly flammable. Offer surplus and non-recyclable solutions to licensed disposal company.
Packaging	Empty containers should be disposed of in accordance with local environmental regulations and taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

IATA

UN-Number: 1170 Class: 3 Packing group: II
Proper shipping name: Ethanol

IMDG

UN-Number: 1170 Class: 3 Packing group: II
Proper shipping name: Ethanol
EMS-No. F-E, S-D

DOT (US)

UN-Number: 1170 Class: 3 Packing group: II
Proper shipping name: Ethanol
Marine pollution: No
Poison Inhalation Hazard: No

15. REGULATORY INFORMATION

Hazard statements

H225: Highly flammable liquid and vapor

Precautionary statements

P210: Keep away from heat/spark/open flames/hot surface.

GHS-Labeling

Pictogram



Signal word *Danger*

Labeling according to EC Directive

Symbol(s): F- Highly flammable

R-phrase(s): 11

Highly flammable.

S-phrase(s): 7-16

Keep container tightly closed. Keep away from source of ignition.

16. OTHER INFORMATION

Copyright 2011 Anaqua Chemicals Supply. License granted to make unlimited paper copies for internal use only. The information, data, and recommendations in this material safety data sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process. The information, data, and recommendations set forth herein are believed by us to be accurate. We make no warranties, either expressed or implied, with respect thereto and assume no liability in connection with any use of such information, data, and recommendations.