



Material Safety Data Sheet

EtOH, Denat. with up to 5% V/V Ether

MSDS# 95415

Section 1 - Chemical Product and Company Identification

MSDS Name: EtOH, Denat. with up to 5% V/V Ether

Catalog Numbers: AC270660000, AC270660010, AC270660025, AC270660050, AC270660250

Synonyms: None.

Company Identification:

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA)

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:

800-ACROS-01

For information in Europe, call:

+32 14 57 52 11

Emergency Number, Europe:

+32 14 57 52 99

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

CHEMTREC Phone Number, Europe:

703-527-3887

Section 2 - Composition, Information on Ingredients

Risk Phrases:

| | |
|-----------------|-------------|
| CAS#: | 60-29-7 |
| Chemical Name: | Ethyl Ether |
| %: | 5 |
| EINECS#: | 200-467-2 |
| Hazard Symbols: | F+ XN |

Risk Phrases: 11

| | |
|-----------------|---------------|
| CAS#: | 64-17-5 |
| Chemical Name: | Ethyl Alcohol |
| %: | 95 |
| EINECS#: | 200-578-6 |
| Hazard Symbols: | F |

Text for R-phrases: see Section 16

Hazard Symbols: F



Risk Phrases: 11

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Flammable liquid and vapor. May cause skin irritation. May cause central nervous system effects. Causes severe eye irritation. May cause liver and kidney damage. May cause reproductive and fetal effects. Target Organs: Kidneys, central nervous system, liver.

Potential Health Effects

- Eye: Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.
- Skin: May cause skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis.
- Ingestion: Symptoms may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma. May cause muscle tremor and impaired motor function. May cause liver and kidney damage.
- Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause central nervous system effects including vertigo, anxiety, depression, muscle incoordination, and emotional instability. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation.
- Chronic: Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause defatting and dermatitis. May cause liver and kidney damage. May cause fetal effects.

Section 4 - First Aid Measures

- Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.
- Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
- Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.
- Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- Notes to Physician:

Section 5 - Fire Fighting Measures

- General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Containers may explode in the heat of a fire. Flammable liquid and vapor.
- Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Autoignition Temperature: 370 deg C (698.00 deg F)

Flash Point: 0 deg C (32.00 deg F)

Explosion Limits: Lower: 4.00 vol %

Explosion Limits: Upper: 19.00 vol %

NFPA Rating: health: 1; flammability: 3; instability: 0;

Section 6 - Accidental Release Measures

- General Information: Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, mist, or vapor. Avoid contact with skin and eyes. Empty

Handling: containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Keep under a nitrogen blanket. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|---------------|--------------------------|---|---------------------------------|
| Ethyl Ether | 400 ppm; 500 ppm STEL | 1900 ppm IDLH (10% LEL) | 400 ppm TWA; 1200 mg/m3 TWA |
| Ethyl Alcohol | 1000 ppm | 1000 ppm TWA; 1900 mg/m3 TWA 3300 ppm IDLH (10% LEL) | 1000 ppm TWA; 1900 mg/m3 TWA |

OSHA Vacated PELs: Ethyl Ether: 400 ppm TWA; 1200 mg/m3 TWA Ethyl Alcohol: 1000 ppm TWA; 1900 mg/m3 TWA

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear a chemical apron. Wear appropriate clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: colorless

Odor: Not available

pH: Not available

Vapor Pressure: 59 mbar @20 deg C

Vapor Density: 1.59

Evaporation Rate: Not available

Viscosity: 1.2 MPA 20.00 deg C

Boiling Point: 78 deg C @ 760mm Hg (172.40°F)

Freezing/Melting Point: -114 deg C (-173.20°F)

Decomposition Temperature: Not available

Solubility in water: Not available

Specific Gravity/Density: .7850g/cm3

Molecular Formula: C2H6O

Molecular Weight: 46.06

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Oxidizing agents, reducing agents, acids, alkali metals, acid anhydrides, acid chlorides.

Hazardous Decomposition Products Carbon monoxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 60-29-7: KI5775000
CAS# 64-17-5: KQ6300000
RTECS:
CAS# 60-29-7: Draize test, rabbit, eye: 100 mg Moderate;
Inhalation, mouse: LC50 = 31000 ppm/30M;
Oral, mouse: LD50 = 1760 mg/kg;
Oral, rat: LD50 = 1215 mg/kg;
Skin, rabbit: LD50 = >20 mL/kg;
.
LD50/LC50: RTECS:
CAS# 64-17-5: Draize test, rabbit, eye: 500 mg Severe;
Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, mouse: LC50 = 39 gm/m3/4H;
Inhalation, rat: LC50 = 20000 ppm/10H;
Oral, mouse: LD50 = 3450 mg/kg;
Oral, rabbit: LD50 = 6300 mg/kg;
Oral, rat: LD50 = 7060 mg/kg;
Oral, rat: LD50 = 9000 mg/kg;
.
Carcinogenicity: Ethyl Ether - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Ethyl Alcohol - IARC: Group 1 carcinogen
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Rainbow trout: LC50 = 12900-15300 mg/L; 96 Hr; Flow-through @ 24-24.3°C
Fish: Rainbow trout: LC50 = 11200 mg/L; 24 Hr; Fingerling (Unspecified)
Bacteria: Phytobacterium phosphoreum: EC50 = 34900 mg/L; 5-30 min; Microtox test

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: ETHANOL

Hazard Class: 3

UN Number: UN1170

Packing Group: II

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 60-29-7: 100 lb final RQ; 45.4 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F

Risk Phrases:

R 11 Highly flammable.

Safety Phrases:

S 7 Keep container tightly closed.

S 16 Keep away from sources of ignition - No smoking.

WGK (Water Danger/Protection)

CAS# 60-29-7: 1

CAS# 64-17-5: 0

Canada

CAS# 60-29-7 is listed on Canada's DSL List

CAS# 64-17-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: B2, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 60-29-7 is listed on Canada's Ingredient Disclosure List

CAS# 64-17-5 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 60-29-7 is listed on the TSCA
Inventory.

CAS# 64-17-5 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 2/22/1999

Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
