

# Material Safety Data Sheet

## 2-Ethoxyethyl ether, 98+%

ACC# 49938

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 2-Ethoxyethyl ether, 98+%

**Catalog Numbers:** AC117900010, AC117900025, AC117900030, AC117900200, AC117900250, AC117905000 AC117905000

**Synonyms:** Bis(2-ethoxyethyl) ether; Diethyl Carbitol; Diethylene glycol diethyl ether.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
112-36-7	2-Ethoxyethyl ether	>98	203-963-7

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear, colorless clear liquid. Flash Point: 82 deg C.

**Warning!** Uninhibited material, or material from which the inhibitor has been removed or reacted, may form explosive peroxides. Causes eye irritation. **Combustible liquid and vapor.** May cause skin and respiratory tract irritation. May form explosive peroxides.

**Target Organs:** Eyes.

**Potential Health Effects**

**Eye:** Causes eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** No information found.

### 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.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or 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:** Treat symptomatically and supportively.

### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated. Combustible liquid and vapor.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** 82 deg C ( 179.60 deg F)

**Autoignition Temperature:** 215 deg C ( 419.00 deg F)

**Explosion Limits, Lower:**N/A

**Upper:** N/A

**NFPA Rating:** (estimated) Health: 1; Flammability: 2; Instability: 1

### 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. If peroxide formation is suspected, do not open or move container. Avoid contact with air and sunlight. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Unused chemicals should not be returned to the container. Do not distill since this removes peroxide-inhibitors. Keep away from heat and flame.

**Storage:** Keep away from sources of ignition. Do not store in direct sunlight. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Regularly check inhibitor levels to maintain peroxide levels below 1%. Do not break the seal on the container until it is needed. Label the container with the date it was first opened. Long-term storage is not recommended.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Ethoxyethyl ether	none listed	none listed	none listed

**OSHA Vacated PELs:** 2-Ethoxyethyl ether: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a 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:** Clear liquid

**Appearance:** clear, colorless

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** 0.48 mm Hg @ 20 deg C

**Vapor Density:** 5.6

**Evaporation Rate:** Not available.

**Viscosity:** 1.4 cP 20 deg C

**Boiling Point:** 180 - 190 deg C @ 760 mm Hg

**Freezing/Melting Point:** -44.3 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Soluble.

**Specific Gravity/Density:** .9090g/cm<sup>3</sup>

**Molecular Formula:** C<sub>8</sub>H<sub>18</sub>O<sub>3</sub>

**Molecular Weight:** 162.23

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. On long term storage, substances with similar functional groups form explosive peroxides. Explosive peroxides may form on concentration. Peroxides can be detonated by friction, impact, or heating. Tends to form explosive peroxides; especially when anhydrous. Peroxide formation may occur in containers that have been opened and remain in storage.

**Conditions to Avoid:** Ignition sources, exposure to air, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

CAS# 112-36-7: KN3160000

### LD50/LC50:

CAS# 112-36-7:

Draize test, rabbit, eye: 50 mg Moderate;

Oral, rat: LD50 = 4970 mg/kg;

Skin, rabbit: LD50 = 6700 uL/kg;

### Carcinogenicity:

CAS# 112-36-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Mutagenicity:** No information available.  
**Neurotoxicity:** No information available.  
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.  
**Environmental:** Terrestrial: High mobility in soil, low volatilization. Aquatic: Not expected to adsorb into suspended solids or sediments. Atmospheric: Exists mainly in vapor phase with a half-life of 14 hours. Low bioconcentration and biodegradation potential.  
**Physical:** No information available.  
**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.  
**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

**TSCA**  
CAS# 112-36-7 is listed on the TSCA inventory.

**Health & Safety Reporting List**  
None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**  
None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**  
None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**  
None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**  
None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**  
None of the chemicals in this product have a TPQ.

**SARA Codes**  
CAS # 112-36-7: fire, reactive.

**Section 313**  
This material contains 2-Ethoxyethyl ether (listed as Glycol ethers), >98%, (CAS# 112-36-7) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**  
CAS# 112-36-7 (listed as Glycol ethers (except for EGBE)) is listed as a hazardous air pollutant (HAP).  
This material does not contain any Class 1 Ozone depletors.  
This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**  
None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**  
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**  
CAS# 112-36-7 can be found on the following state right to know lists: New Jersey, (listed as Glycol ethers), Pennsylvania, (listed as Glycol ethers).

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations European Labeling in Accordance with EC Directives

**Hazard Symbols:**  
Not available.

**Risk Phrases:**  
R 19 May form explosive peroxides.

**Safety Phrases:**

S 37 Wear suitable gloves.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S 28A After contact with skin, wash immediately with plenty of water

**WGK (Water Danger/Protection)**

CAS# 112-36-7: No information available.

**Canada - DSL/NDSL**

CAS# 112-36-7 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B3, 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.

**Canadian Ingredient Disclosure List**

CAS# 112-36-7 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 7/22/1998

**Revision #4 Date:** 5/22/2006

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