

# Material Safety Data Sheet

## 2-Ethyl-1,3-hexanediol, mixture of isomers, 99%

ACC# 71746

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 2-Ethyl-1,3-hexanediol, mixture of isomers, 99%

**Catalog Numbers:** AC118510010, AC118510250, AC118512500

**Synonyms:** Ethohexadiol; Ethyl hexanediol; 2-Ethyl-3-propyl-1,3-propanediol; Octylene glycol; Ethylhexylene glycol; EHD.

**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
94-96-2	2-Ethyl-1,3-hexanediol	99	202-377-9

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: oily, colorless liquid.

**Warning!** Causes eye irritation. May be harmful if swallowed or absorbed through the skin. This substance has caused adverse reproductive and fetal effects in animals. Hygroscopic (absorbs moisture from the air).

**Target Organs:** Eyes.

#### Potential Health Effects

**Eye:** Causes severe eye irritation.

**Skin:** May cause mild skin irritation. May be harmful if absorbed through the skin. Substance is readily absorbed through the skin. Not expected to cause an allergic skin reaction.

**Ingestion:** May be harmful if swallowed. Ingestion of large amounts may cause CNS depression.

**Inhalation:** Causes irritation of mucous membrane.

**Chronic:** May cause fetal effects based on animal studies. Eastman Kodak study on the developmental toxicity of 2-ethyl-1,3-hexanediol in rats by gavage at doses of 0, 500, 1000, 2000, and 4000 mg/kg produced maternal toxicity and lethality at oral doses of 2000 and 4000 mg/kg. Significant fetal toxicity and teratogenicity were evident at a maternally toxic dose (2000 mg/kg), while only one fetus in the 500 mg/kg and two fetuses in the 1000 mg/kg group had tail malformations.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

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

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**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. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** Water spray may cause frothing. In case of fire, use carbon dioxide, dry chemical powder or appropriate foam.

**Flash Point:** 120 deg C ( 248.00 deg F)

**Autoignition Temperature:** 335 deg C ( 635.00 deg F)

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Avoid breathing vapor or mist.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** 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-Ethyl-1,3-hexanediol	none listed	none listed	none listed

**OSHA Vacated PELs:** 2-Ethyl-1,3-hexanediol: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles.

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

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

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** oily, colorless

**Odor:** Odorless

**pH:** Not available.

**Vapor Pressure:** < 0.01 mm Hg @ 20 deg C

**Vapor Density:** 5.03 (air=1)

**Evaporation Rate:** Not available.

**Viscosity:** 323 cps @ 20 deg C

**Boiling Point:** 244 deg C @ 760 mm Hg

**Freezing/Melting Point:** -40 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Slightly soluble.

**Specific Gravity/Density:** 0.9422 g/ml

**Molecular Formula:** C<sub>8</sub>H<sub>18</sub>O<sub>2</sub>

**Molecular Weight:** 146.23

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Moisture, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong reducing agents, strong acids, acid chlorides, acid anhydrides.

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

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

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 94-96-2: MO2625000

### LD50/LC50:

**CAS#** 94-96-2:

Dermal, guinea pig: LD50 = >10 mL/kg;  
Draize test, rabbit, eye: 20 mg Severe;  
Draize test, rabbit, skin: 500 mg Mild;  
Oral, mouse: LD50 = 1900 mg/kg;  
Oral, rabbit: LD50 = 2600 mg/kg;  
Oral, rat: LD50 = 1400 mg/kg;  
Skin, rabbit: LD50 = 2 gm/kg;

### Carcinogenicity:

**CAS#** 94-96-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** Noncosmetic products containing ethohexadiol were voluntarily removed from the US & Canadian markets in 1991. This removal was in response to an unpublished study by a manufacturer showing poor lung expansion in the offspring of exposed animals.

**Reproductive Effects:** No data available.

**Mutagenicity:** No information available.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12 - Ecological Information

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	Not Regulated
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 94-96-2 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 # 94-96-2: immediate, delayed.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### 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# 94-96-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

### 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:

XI

#### Risk Phrases:

R 41 Risk of serious damage to eyes.

#### Safety Phrases:

S 25 Avoid contact with eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 39 Wear eye/face protection.

S 46 If swallowed, seek medical advice immediately and show this container or label.

**WGK (Water Danger/Protection)**

CAS# 94-96-2: 1

**Canada - DSL/NDSL**

CAS# 94-96-2 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of 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# 94-96-2 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 11/11/1998

**Revision #5 Date:** 8/15/2005

*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 Fisher 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 Fisher has been advised of the possibility of such damages.*