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# LF5050 Lubricating Fluid

## MSDS

### Product Safety

Nomenclature: Lubricating Fluid - Non Explosive, Non Flammable  
 Part Number: LF5050  
 NSN: 9150-21-920-6522  
 Unit of Issue: Ea. - 8 oz. Bottle (Plastic) (250 ml)  
 Composition: 50% Ethylene Glycol (certified); 50% Distilled Water  
 Shelf Life: 3 Years



General Precautions:

- AVOID PROLONGED OR REPEATED BREATHING OF VAPOUR.
- DO NOT TAKE INTERNALLY



**Chemical component: Ethylene Glycol**

MSDS Source URL: <https://www.fishersci.ca/msdsSearchResults.do>

Enter: CAS #

or

CAT #

# Acros Organics

## Material Safety Data Sheet

Creation Date 02-Feb-2010

Revision Date 01 Mar-2013

Revision No. 3

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	<b>Ethylene glycol</b>	
<b>Cat No.</b>	<b>AC410010000; AC410010010; AC410010025</b>	
<b>Synonyms</b>	Monoethylene glycol; 1, 2-Ethanediol	
<b>Recommended Use</b>	Laboratory chemicals	
<b>Company</b>	<b>Entity / Business Name</b>	<b>Emergency Telephone Numbers</b>
Fisher Scientific	Acros Organics	For information in the US, call: 001-800-ACROS-01
One Reagent Lane	One Reagent Lane	For information in Europe, call: +32 14 57 52 11
Fair Lawn, NJ 07410	Fair Lawn, NJ 07410	
Tel: (201) 796-7100		Emergency Number, US: 001-201-796-7100
		Emergency Number, Europe: +32 14 57 52 99
		<b>CHEMTREC</b> phone number, US: 001-800-424-9300
		<b>CHEMTREC</b> phone number, Europe: 001-703-527-3887

### 2. HAZARDS IDENTIFICATION

**Warning !**

#### Emergency Overview

Harmful if swallowed. May cause central nervous system effects. May cause skin, eye, and respiratory tract irritation.  
Hygroscopic.

**Appearance** - No Information Available

**Physical State** - viscous liquid

**Odor** - odorless

**Target Organs** Central nervous system (CNS), Liver, Kidney

**Potential Health Effects**
**Acute Effects - Principle Routes of Exposure**

<b>Eyes</b>	May cause irritation.
<b>Skin</b>	May be harmful in contact with skin. May cause irritation.
<b>Inhalation</b>	May be harmful if inhaled. May cause irritation of respiratory tract.
<b>Ingestion</b>	Harmful if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Chronic Effects</b>	Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Central nervous system disorders. Preexisting eye disorders. Skin disorders. Kidney disorders. Liver disorders.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Haz / Non-haz**

Component	CAS-No	Weight %
Ethylene glycol	107-21-1	>95

#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Notes to Physician</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	116°C / 240.8°F
<b>Method -</b>	No information available.
<b>Autoignition Temperature</b>	413°C / 775.4°F
<b>Explosion Limits</b>	
<b>Upper</b>	15.30 vol %
<b>Lower</b>	3.20 vol %
<b>Suitable Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable Extinguishing Media</b>	No information available.
<b>Hazardous Combustion Products</b>	No information available.
<b>Sensitivity to mechanical impact</b>	No information available.
<b>Sensitivity to static discharge</b>	No information available.
<b>Specific Hazards Arising from the Chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Ensure adequate ventilation. Use personal protective equipment.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean-Up</b>	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal..

#### 7. HANDLING AND STORAGE

<b>Handling</b>	Wear personal protective equipment. Ensure adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
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##### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol	Ceiling: 100 mg/m <sup>3</sup>	(Vacated) Ceiling: 50 ppm (Vacated) Ceiling: 50 ppm	

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ethylene glycol	Ethylene glycol Ceiling: 50 ppm Ceiling: 127 mg/m <sup>3</sup>	Peak: 100 mg/m <sup>3</sup> CEV: 100 mg/m <sup>3</sup>	Peak: 100 mg/m <sup>3</sup> CEV: 100 mg/m <sup>3</sup>

**NIOSH IDLH:** Immediately Dangerous to Life or Health

##### Personal Protective Equipment

###### Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

###### Respiratory Protection

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	viscous liquid
<b>Appearance</b>	No information available.
<b>Odor</b>	odorless
<b>Odor Threshold</b>	No information available.
<b>pH</b>	5.5-7.5 50% aq. sol.
<b>Vapor Pressure</b>	0.12 mmHg @ 20 °C
<b>Vapor Density</b>	2.14 (Air = 1.0)
<b>Viscosity</b>	21 cP (20°C)
<b>Boiling Point/Range</b>	196 - 198°C / 384.8 - 388.4°F@ 760 mmHg
<b>Melting Point/Range</b>	-13°C / 8.6°F
<b>Decomposition temperature</b>	> 500°C
<b>Flash Point</b>	116°C / 240.8°F
<b>Evaporation Rate</b>	No information available.
<b>Specific Gravity</b>	1.113
<b>Solubility</b>	Soluble in water
<b>log Pow</b>	No data available
<b>Molecular Weight</b>	62.06
<b>Molecular Formula</b>	C2 H6 O2

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Hygroscopic.
<b>Conditions to Avoid</b>	Incompatible products. Excess heat. Exposure to moist air or water.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong acids, Strong bases, Aldehydes
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing..

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol	4000 mg/kg ( Rat )	9530 µL/kg ( Rabbit )	Not listed

<b>Irritation</b>	No information available.
<b>Toxicologically Synergistic Products</b>	No information available.
<b><u>Chronic Toxicity</u></b>	
<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product
<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	Mutagenic effects have occurred in humans.
<b>Reproductive Effects</b>	Experiments have shown reproductive toxicity effects on laboratory animals.
<b>Developmental Effects</b>	Developmental effects have occurred in experimental animals.
<b>Teratogenicity</b>	No information available.
<b>Other Adverse Effects</b>	See actual entry in RTECS for complete information.
<b>Endocrine Disruptor Information</b>	No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethylene glycol	6500 - 13000 mg/L EC50 96 h	27540 mg/L LC50 96 h 16000 mg/L LC50 96 h 41000 mg/L LC50 96 h 14 - 18 mL/L LC50 96 h 40000 - 60000 mg/L LC50 96 h 40761 mg/L LC50 96 h	EC50 = 10000 mg/L 16 h EC50 = 620 mg/L 30 min EC50 = 620.0 mg/L 30 min	46300 mg/L EC50 = 48 h

<b>Persistence and Degradability</b>	Readily biodegradable.
<b>Bioaccumulation/ Accumulation</b>	No information available
<b>Mobility</b>	

Component	log Pow
Ethylene glycol	-1.93

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**14. TRANSPORT INFORMATION**

**DOT** Not regulated  
**TDG** Not regulated  
**IATA** Not regulated  
**IMDG/IMO** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Ethylene glycol	T	X	-	203-473-3	-		X	X	X	X	X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313**

Component	CAS-No	Weight %	SARA 313 – Threshold Values %
Ethylene glycol	107-21-1	>95	1.0

**SARA 311/312 Hazardous Categorization:**

**Acute Health Hazard** Yes  
**Chronic Health Hazard** No  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

**Clean Water Act**

Not applicable

**Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ethylene glycol	x -		

**OSHA**

Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Ethylene glycol	5000 lb	-

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethylene glycol	X	X	X	X	X

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** Slight risk, Grade 1

**Canada - This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.**

**WHMIS Hazard Class**

D1B Toxic materials



D2A Very toxic materials

**16. OTHER INFORMATION**

**Prepared By** Regulatory Affairs  
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**Creation Date** 02-Feb-2010

**Print Date** 01-Mar-2013

**Revision Summary** (M)SDS sections updated 3

**Disclaimer**

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**End of MSDS**