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## MATERIAL SAFETY DATA SHEET

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### Chemical Product and Company Identification

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LABEL IDENTIFIER: Fogpruf™ P

PRODUCT IDENTIFIER: P/N 39474 Fogpruf P, 4 oz. Spray bottle, complete

COMPANY IDENTIFICATION: MINE SAFETY APPLIANCES COMPANY  
P.O. Box 439  
Pittsburgh, PA 15230  
CUSTOMER SERVICE: 1-800-MSA-2222 (8:30 a.m. – 5:00 p.m., USA local time)  
EMERGENCY: 1-800-255-3924 (CHEM-TEL, INC.)

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### Vendor Information

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**Material Safety Data Sheets as furnished by Fisher Scientific for Ethylene Glycol is attached ( 6 Pages Total ).**

Fisher Scientific, MSDS Revision Date: 3/12/98

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### Composition/Information on Ingredients

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Ethylene Glycol (CAS 107-21-1)	%
	50

OSHA REGULATORY STATUS: Hazardous by definition of Hazard Communication Standard, 29 CFR 1910.1200.

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### Regulatory Information

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This product contains a toxic chemical, Ethylene Glycol, subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 C.F.R. Part 372.

OSHA REGULATORY STATUS: Hazardous by definition of Hazard Communication Standard, 29 CFR 1910.1200.

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### Other Information

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WARNING: This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.

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# Material Safety Data Sheet

## Ethylene Glycol P.A.

ACC# 95630

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Ethylene Glycol P.A.**Catalog Numbers:** AC295530000, AC295530010, AC295530025**Synonyms:** 1,2-Dihydroxyethane, 1,2-Ethandiol, Ethylene alcohol, Ethylene dihydrate.**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fairlawn, NJ 07410

**For information in North America, call:** 800-ACROS-01**For information in Europe, call:** 0032(0) 14575211**For emergencies in the US, call CHEMTREC:** 800-424-9300**For emergencies outside the US, call:** 0032(0) 14575299

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
107-21-1	Ethylene glycol	99	203-473-3

**Hazard Symbols:** XN**Risk Phrases:** 22

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear. **Caution!** Hygroscopic. This substance has caused adverse reproductive and fetal effects in animals. May cause kidney damage. May cause central nervous system effects. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause cardiac disturbances.

**Target Organs:** Kidneys, heart, central nervous system, liver.**Potential Health Effects****Eye:** May cause moderate eye irritation.**Skin:** May cause skin irritation. Low hazard for usual industrial handling.**Ingestion:** May cause nausea and vomiting. Toxicity follows 3-stage progression. (1) involves central nervous system effects including paralysis of eye muscles, convulsions, and coma. Metabolic acidosis and cerebral swelling may also occur. (2) involves cardiopulmonary system with symptoms of hypertension, rapid heart beat, and possible cardiac failure. (3) involves severe kidney

abnormalities including possible renal failure.

**Inhalation:** May cause respiratory tract irritation. Heated or misted substance may cause headache, irregular eye movements, and possible coma.

**Chronic:** May cause kidney injury.

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.

**Skin:** Flush skin with plenty of soap and 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:** 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 to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Ethanol may inhibit methanol metabolism.

## Section 5 - Firefighting 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.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Water or foam may cause frothing. Use agent most appropriate to extinguish fire.

**Autoignition Temperature:** 410 deg C (770.00 deg F)

**Flash Point:** 111 deg C (231.80 deg F)

**NFPA Rating:** health-1; flammability-1; reactivity-0 Explosion Limits, Lower: 3.20 vol % Upper: 15.30 vol %

## 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., dry sand or earth), then place into a chemical waste container. 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. Ground and bond containers when transferring material. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

**Storage:** Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethylene glycol	aerosol: 100 mg/m <sup>3</sup>	no established RELs - see Appendix D	none listed

**OSHA Vacated PELs:** Ethylene glycol: No OSHA Vacated PELs are listed for this chemical.

### 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 appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** .05 mm Hg @ 20C

**Vapor Density:** 2.1 (air=1)

**Evaporation Rate:**

**Viscosity:** mPas 20 deg C

**Boiling Point:** 195760.00 deg C

**Freezing/Melting Point:**-13 deg C

**Decomposition Temperature:**Not available.

**Solubility:** soluble in water

**Specific Gravity/Density:**1.1200g/cm<sup>3</sup>

**Molecular Formula:**C<sub>2</sub>H<sub>6</sub>O<sub>2</sub>

**Molecular Weight:**

## Section 10 - Stability and Reactivity

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

**Conditions to Avoid:** Incompatible materials, ignition sources, moisture, excess heat.

**Incompatibilities with Other Materials:** Chlorosulfonic acid, dimethyl terephthalate, oleum, phosphorus pentasulfide, silvered-copper wire, sodium hydroxide, sulfuric acid, titanium butoxide.

Causes ignition at room temperature with chromium trioxide, potassium permanganate, and sodium peroxide. Causes ignition at 100C with ammonium dichromate, silver chlorate, sodium chloride, and uranyl nitrate.

**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#** 107-21-1: KW2975000

**LD50/LC50:**

CAS# 107-21-1:

Inhalation, rat: LC50 = 10876 mg/kg;

Oral, mouse: LD50 = 5500 mg/kg;

Oral, rat: LD50 = 4700 mg/kg;

Skin, rabbit: LD50 = 9530 mg/kg; <BR.

**Carcinogenicity:**

CAS# 107-21-1:

**ACGIH:** A4 - not classifiable as a human carcinogen

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** There has been adverse reproductive effects in animals.

**Neurotoxicity:** No data available.

**Mutagenicity:** No data available.

**Other Studies:** Please refer to RTECS KW2975000 for additional information.

## Section 12 - Ecological Information

**Ecotoxicity:** Goldfish LD50= >5000mg/L/24Hr Guppies LC50= 493,000ppm/7D Shrimp (salt water) LC50= >100ppm/48Hr

**Environmental Fate:** On soil, substance may leach to groundwater and biodegrade rapidly. In water, substance readily biodegrades. In air, substance reacts with hydroxyl radicals (T1/2= 1 day). Substance is not expected to bioconcentrate in marine life.

**Physical/Chemical:** No information available.

**Other:** Please refer to the Handbook of Environmental Fate and Exposure Data for additional information.

## Section 13 - Disposal Considerations

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

**RCRA D-Series Maximum Concentration of Contaminants:** None listed.

**RCRA D-Series Chronic Toxicity Reference Levels:** None listed.

**RCRA F-Series:** None listed.

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

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

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	No information available.	Not regulated as a hazardous material.	Not regulated as a hazardous material.	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# 107-21-1 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.

#### SARA

#### Section 302 (RQ)

None of the chemicals in this material have an RQ.

#### Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 107-21-1: acute, chronic.

#### Section 313

This material contains Ethylene glycol (CAS# 107-21-1, 99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

CAS# 107-21-1 is listed as a hazardous air pollutant (HAP). 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# 107-21-1 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

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:**

XN

**Risk Phrases:**

R 22 Harmful if swallowed.

**Safety Phrases:**

S 2 Keep out of reach of children.

**WGK (Water Danger/Protection)**

CAS# 107-21-1: 0

**Canada**

CAS# 107-21-1 is listed on Canada's DSL/NDSL List.

WHMIS: Not available.

CAS# 107-21-1 is not listed on Canada's Ingredient Disclosure List.

**Exposure Limits**

CAS# 107-21-1: OEL-AUSTRALIA:TWA 60 mg/m<sup>3</sup>;STEL 120 mg/m<sup>3</sup> OEL-BELGIUM:STEL 50 ppm (127 mg/m<sup>3</sup>) OEL-DENMARK:STEL 50 ppm (130 mg/m<sup>3</sup>) OEL-DE NMARK:TWA 10 mg/m<sup>3</sup> OEL-FINLAND:TWA 10 mg/m<sup>3</sup>;STEL 20 mg/m<sup>3</sup> OEL-FINLAND:TWA 50 ppm (125 mg/m<sup>3</sup>);STEL 75 ppm (190 mg/m<sup>3</sup>) OEL-FRANCE:STEL 50 ppm (125 mg/m<sup>3</sup>) OEL-HUNGARY:STEL 50 mg/m<sup>3</sup>;Skin OEL-THE NETHERLANDS:TWA 10 mg/m<sup>3</sup> OEL-THE NETHERLANDS:TWA 50 ppm (125 mg/m<sup>3</sup>) OEL-RUSSIA:STEL 5 mg/m<sup>3</sup> OEL-SWEDEN:TWA 50 ppm (130 mg/m<sup>3</sup>);STEL 75 ppm (19 mg/m<sup>3</sup>) OEL-SWITZERLAND:TWA 1 mg/m<sup>3</sup> OEL-SWITZERLAND:TWA 50 ppm (125 mg/m<sup>3</sup>) OEL-UNITED KINGDOM:TWA 10 mg/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 60 mg/m<sup>3</sup>;STEL 125 mg/m<sup>3</sup> OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

## Section 16 - Additional Information

**MSDS Creation Date:** 12/08/1995

**Revision #3 Date:** 3/12/1998

*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 way 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.*