



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Fluorescent Gas Leak Detector (4184)  
**CAS #** Mixture  
**Product use** Gas Leak Detector  
**Manufacturer** Nu-Calgon  
2008 Altom Court  
St. Louis, MO 63146 US  
Phone: 314-469-7000 / 800-554-5499  
Emergency Phone: 1-800-424-9300 (CHEMTREC)

## 2. Hazards Identification

**Emergency overview** DANGER  
Toxic.  
Contains a potential teratogen.  
EYE AND SKIN IRRITANT.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Skin absorption, Inhalation, Ingestion.

**Eyes** Causes irritation.

**Skin** Causes irritation. May be absorbed through the skin.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** This product may be harmful or fatal if swallowed.  
May cause stomach distress, nausea or vomiting.  
Aspiration of material into lungs can cause chemical pneumonitis.

**Target organs** Eyes. Respiratory system. Skin. Kidney. Liver.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis. Prolonged or repeated overexposure can cause liver and kidney damage.

**Signs and symptoms** Although animal toxicity values do not meet criteria, ethylene glycol is toxic to humans. There are numerous human case reports of toxicity and death published in the literature.  
Symptoms may include redness, edema, drying, defatting and cracking of the skin.  
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**OSHA Regulatory Status** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Potential environmental effects** Components of this product have been identified as having potential environmental concerns.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Ethylene glycol	107-21-1	10 - 30
Lauryldimethylamine oxide	1643-20-5	1 - 5

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

**Skin contact** Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

**Ingestion** Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

**Notes to physician** Symptoms may be delayed.

**General advice**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by WHMIS/OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Carbon dioxide. Dry chemical powder. Foam. Water spray.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

## 7. Handling and Storage

<b>Handling</b>	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.
<b>Storage</b>	Keep out of reach of children. Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Ethylene glycol	<b>ACGIH-TLV</b> Ceiling: 100 mg/m <sup>3</sup> <b>OSHA-PEL</b> Not established
Lauryldimethylamine oxide	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
<b>Engineering controls</b>	Use only under good ventilation conditions or with respiratory protection.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear safety glasses with side shields.
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Avoid breathing mists or vapors.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Fluorescent
<b>Color</b>	Yellow
<b>Form</b>	Liquid
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Liquid
<b>pH</b>	8.1 - 8.5
<b>Melting point</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	Not available
<b>Pour point</b>	Not available
<b>Evaporation rate</b>	Not available
<b>Flash point</b>	> 220 °F (> 104.44 °C)
<b>Auto-ignition temperature</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Specific gravity</b>	Not available
<b>Relative density</b>	8.54 lbs/gallon
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H<sub>2</sub>O)</b>	Not available
<b>Viscosity</b>	375 CPs
<b>Percent volatile</b>	Not available

## 10. Stability and Reactivity

<b>Reactivity</b>	This product may react with strong acids.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Caustics. Acids. Oxidizers.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

## 11. Toxicological Information

**Acute effects** Although animal toxicity values do not meet criteria, ethylene glycol is toxic to humans. There are numerous human case reports of toxicity and death published in the literature.

### Component analysis - LC50

Ingredient(s)	LC50
Ethylene glycol	Not available
Lauryldimethylamine oxide	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Ethylene glycol	7500 mg/kg mouse; 6.6 g/kg guinea pig; 5 g/kg rabbit
Lauryldimethylamine oxide	2700 mg/kg mouse

### Effects of acute exposure

**Eye** Causes irritation.

<b>Skin</b>	Causes irritation. May be absorbed through the skin.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	This product may be harmful or fatal if swallowed. May cause stomach distress, nausea or vomiting. Aspiration of material into lungs can cause chemical pneumonitis.
<b>Sensitization</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Carcinogenicity</b>	See below.
<b>ACGIH - Threshold Limit Values - Carcinogens</b>	
Ethylene glycol	107-21-1 A4 - Not Classifiable as a Human Carcinogen
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	In rats and mice exposed to ethylene glycol, embryotoxic (late resorptions), fetotoxic (reduced fetal body weight) and teratogenic (external, soft tissue and skeletal defects) effects were observed at relatively high oral doses that caused no or minimal maternal toxicity.
<b>Name of Toxicologically Synergistic Products</b>	Not available

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## 12. Ecological Information

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<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns.	
<b>Ecotoxicity - Freshwater Algae - Acute Toxicity Data</b>		
Ethylene glycol	107-21-1	96 Hr EC50 Pseudokirchneriella subcapitata: 6500 - 13000 mg/L
<b>Ecotoxicity - Freshwater Fish - Acute Toxicity Data</b>		
Ethylene glycol	107-21-1	96 Hr LC50 Oncorhynchus mykiss: 41000 mg/L; 96 Hr LC50 Oncorhynchus mykiss: 14 - 18 mL/L [static]; 96 Hr LC50 Lepomis macrochirus: 27540 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 40761 mg/L [static]; 96 Hr LC50 Pimephales promelas: 40000 - 60000 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 16000 mg/L [static]
<b>Ecotoxicity - Water Flea - Acute Toxicity Data</b>		
Ethylene glycol	107-21-1	48 Hr EC50 Daphnia magna: 46300 mg/L
<b>Persistence / degradability</b>	Not available	
<b>Bioaccumulation / accumulation</b>	Not available	
<b>Mobility in environmental media</b>	Not available	
<b>Environmental effects</b>	Not available	
<b>Aquatic toxicity</b>	Not available	
<b>Partition coefficient</b>	Not available	
<b>Chemical fate information</b>	Not available	
<b>Other adverse effects</b>	Not available	

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## 13. Disposal Considerations

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<b>Disposal instructions</b>	Review federal, provincial, and local government requirements prior to disposal.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

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## 14. Transport Information

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<b>U.S. Department of Transportation (DOT)</b>	Not regulated as dangerous goods.
<b>Transportation of Dangerous Goods (TDG - Canada)</b>	Not regulated as dangerous goods.

## 15. Regulatory Information

### Canadian federal regulations

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

#### Canada - WHMIS - Ingredient Disclosure List

Ethylene glycol	107-21-1	1 %
Lauryldimethylamine oxide	1643-20-5	1 %

### WHMIS status

Controlled

### WHMIS classification

Class D - Division 1B, 2A, 2B

### WHMIS labeling



### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** Yes

### US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Ethylene glycol	107-21-1	5000 Lb final RQ; 2270 kg final RQ
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#### U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Ethylene glycol	107-21-1	1.0 % de minimis concentration
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### CERCLA (Superfund) reportable quantity

1,2-Ethanediol: 5000.0000

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

### State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

#### U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Ethylene glycol	107-21-1	Present (exempt when vapors or particulates are formed due to work practices or procedures)
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#### U.S. - Illinois - Toxic Air Contaminants

Ethylene glycol	107-21-1	Present
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#### U.S. - Louisiana - Reportable Quantity List for Pollutants

Ethylene glycol	107-21-1	5000 Lb RQ (applies to unauthorized emissions based on total mass emitted into or onto all media within any consecutive 24-hour period); 5000 lb RQ (applies to unauthorized emissions based on total mass emitted into the atmosphere)
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#### U.S. - Massachusetts - Right To Know List

Ethylene glycol	107-21-1	Present
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#### U.S. - Minnesota - Hazardous Substance List

Ethylene glycol	107-21-1	Present (particulate and vapor)
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#### U.S. - New Jersey - Right to Know Hazardous Substance List

Ethylene glycol	107-21-1	sn 0878
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#### U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Ethylene glycol	107-21-1	1 Lb RQ (air); 1 lb RQ (land/water)
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#### U.S. - Pennsylvania - RTK (Right to Know) List

Ethylene glycol	107-21-1	Environmental hazard
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#### U.S. - Rhode Island - Hazardous Substance List

Ethylene glycol	107-21-1	Toxic; Flammable
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**Inventory name****Country(s) or region**

Canada

Canada

United States &amp; Puerto Rico

**Inventory name**

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

Toxic Substances Control Act (TSCA) Inventory

**On inventory (yes/no)\***

Yes

No

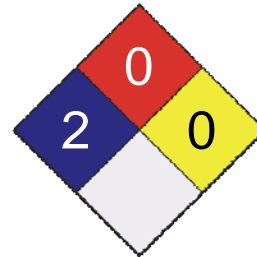
Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 2
Flammability	0
Physical Hazard	0
Personal Protection	B

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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15-Feb-2014

**Prepared by**

Nu-Calgon Technical Service (314) 469-7000

**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.