



**MSDS061**

**Anti-Fog Lens Cleaner**

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## MATERIAL SAFETY DATA SHEET

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### Chemical Product and Company Identification

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LABEL IDENTIFIER: Anti-Fog Lens Cleaner

PRODUCT IDENTIFIER: P/N 13016 Fogpruf™ Solution, 4 oz. Spray Bottle  
P/N 12650 Fogpruf™ Solution, 1 quart Bottle

COMPANY IDENTIFICATION: MINE SAFETY APPLIANCES COMPANY  
1100 Cranberry Woods Drive  
Cranberry Township, PA 16066  
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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**A Material Safety Data Sheet as furnished by Hilco for MSA Anti-Fog Lens Cleaner is attached (7 Pages).**

Hilco MSDS REVISION DATE: 16 Jan 2012, Rev. 4

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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.

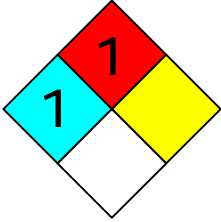

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PRODUCT: Leader Lens Cleaning Liquid

Issue Date: 2 February 2009

Revision Date: 16 Jan 2012

Revision Number: 4

<b>NFPA</b> 	<b>HMIS</b> <table border="1"><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr><tr><td></td><td>B</td></tr></table>	Health Hazard	1	Fire Hazard	1	Reactivity	0		B	<b>PPE</b> 	<b>Transport Symbol</b>
Health Hazard	1										
Fire Hazard	1										
Reactivity	0										
	B										

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Leader Lens Cleaning Liquid  
**Product Number(s):** 21, 24, 24P, 25, 25P, 26, 26P, 44, 61F, 81, 82, 84, 85  
**Recommended Use:** Lens cleaner  
**Supplier Information:**  
Hilco  
33 West Bacon Street, Plainville, Massachusetts, 02762 USA  
Phone: 1-508-699-4406  
Fax: 1-508-699-4579  
Contact:  
Contact Phone:  
**Emergency Phone: Call INFOTRAK - 1-800-535-5053**

## 2. HAZARDS IDENTIFICATION

### Potential Health Effects

#### Principal Routes of Exposure

Inhalation. Skin contact. Eye Contact.

#### Acute Toxicity

##### Eyes

Contact may cause irritation.

##### Skin

May cause irritation.

##### Inhalation

Avoid breathing vapors or mists. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

##### Ingestion

May be harmful if swallowed.

#### Chronic Effects

No known effects based on information supplied.

#### Aggravated Medical Conditions

Central nervous system. Preexisting eye disorders. Blood disorders. Kidney disorders. Liver disorders. Overexposure may cause female and male reproductive disorder(s). Skin disorders.

#### Interactions w/ Other Chemicals

Use of alcoholic beverages may enhance toxic effects.

#### Environmental Hazards

See section 12

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## 3. INGREDIENTS

Chemical Name	CAS No.	% by Weight
Water	773-18-5	85 - 95
2-butoxyethanol	111-76-2	5-15
Sodium Bicarbonate	144-55-8	<0.1
Anti-Fog	56-81-5	<1
Anti-Stat	68391-01-5	<1

## 4. FIRST AID MEASURES

wide open while rinsing. If symptoms persist, call a physician.

**Skin Contact** Wash with soap and water. If irritation persists, or allergic reaction occurs, call a physician.

**Inhalation** Move to fresh air.

**Ingestion** Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician immediately.

**Notes to Physicians** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Flammable Properties** Combustible material.

**Flash Point** 118A°C/244.4A°F

**Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Uniform Fire Code**  
- Combustible Liquid III-B  
- Other health hazard: Target Organ Toxin -- Liquid

**Hazardous Byproducts of Combustion** Carbon oxides

**Explosion Data**  
**Sensitivity to Mechanical Impact** Not sensitive  
**Sensitivity to Static Discharge** Yes

**Protective Equipment** Wear self contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent), and full protective gear.

### Special Precautions

**NFPA**      **Health Hazard:** 1      **Flammability:** 1      **Stability:** 0      **Physical & Chemical Hazards:**

## 6. ACCIDENTAL RELEASE & SPILL MEASURES

**Personal Precautions** Ensure adequate ventilation. Avoid contact with skin and eyes.

**Containment Methods** Prevent further leakage or spillage if safe to do so.

**Clean-up Methods** Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal bunder, sawdust). Pick up and transfer to properly labeled containers.

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## 7. HANDLING AND STORAGE

**Handling** Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin and clothing. Avoid contact with skin. Keep out of reach of children.

**Storage** Keep container tightly closed in a cool dry place. Keep in properly labeled containers.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-butoxyethanol	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m <sup>3</sup> Skin	IDLH: 700 ppm

**Engineering Measures** Showers. Eyewash Stations. Ventilation Systems

### Personal Protective Equipment

**Eye & Face Protection** Tight fitting safety goggles

**Skin & Body Protection** Lightweight protective clothing. Protective gloves.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** ..... Clear, pale pink or pale blue liquid.

**Odor** ..... Mild citrus

**Odor Threshold** ..... no information available

**Physical State** ..... Liquid

**pH** ..... 7

**Flash Point** ..... 118A°C/244.4A°F

**Auto-ignition Temperature** ..... no information available

**Decomposition Temperature** ..... no information available

**Boiling Point** ..... 98A°C/208A°F

**Melting Point** ..... no information available

**Flammability Limits in Air** ..... no information available

**Explosion Limits** ..... no information available

**Water Solubility** ..... soluble in water

**Solubility** ..... no information available

**Evaporation Rate** ..... no information available

**Vapor Pressure** ..... no information available

**Vapor Density** ..... no information available

**Specific Gravity (@20°C)** ..... no information available

**VOC Content** ..... 5.09

**Partition coefficient (n-octanol/water)**

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended storage conditions

**Incompatible Products** None known based on information supplied

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Conditions to Avoid Heating in air.

Hazardous Byproducts of Decomposition Carbon Oxides

Hazardous Polymerization Hazardous polymerization does not occur

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplies information.

Chemical Name	LD50 Oral	LD50 Dermal	LD50 Inhalation
Water	90 mL/kg (Rat)		
2-butoxyethanol	470 mg/kg (Rat)	220 mg/kg (Rat) 2270 mg/kg (Rabbit)	2.21 mg/L (Rat) 4h 450 ppm (rat) 4h
Sodium Bicarbonate	4220 mg/kg (Rat)		

### Chronic Toxicity

#### Carcinogenicity

Chemical Name	ACGIH	IARC	NTP	OSHA
2-butoxyethanol	A3			

ACGIH: American Conference of Governmental Industrial Hygienists)

A3: Animal Carcinogen

Target Organ Effects Blood, Central Nervous System (CNS), Eyes, Hematopoietic System, Kidney, Liver, Respiratory System, Skin.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
2-butoxyethanol		LC50=1490 mg/L Lepomis macrochirus 96h		LC50 1698-1940 mg/L 24h EC50 = 1720 mg/L 24h
Sodium Bicarbonate	EC50 > 650mg/L 120h	LC50=8250-9000 mg/L Lepomis macrochirus 96h		EC50 = 2350 mg/L 48h

Chemical Name	Log Pow
2-butoxyethanol	=0.81 25A°C

## 13. WASTE DISPOSAL

### Waste Disposal Methods

This material as supplied is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

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## Contaminated Materials

Dispose of in accordance with local regulations.

## 14. TRANSPORTATION

DOT ..... not regulated  
TDG ..... not regulated  
MEX ..... not regulated  
ICAO ..... not regulated  
IATA ..... not regulated  
IMDG/IMO ..... not regulated  
RID ..... not regulated  
ADR ..... not regulated  
ADN ..... not regulated

## 15. REGULATORY INFORMATION

### International Inventories

TSC ..... Complies  
DSL ..... Does not comply  
EINECS/ELINCS ..... Does not comply  
ENCS ..... Does not comply  
IECSC ..... Does not comply  
KECL ..... Does not comply  
PICCS ..... Does not comply  
AICS ..... Does not comply

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, part 372.

Chemical Name	CAS No.	% by Weight	SARA 313 - Threshold Values %
2-butoxyethanol	Proprietary	5-15	1.0

#### SARA 313 / 312 Hazard Categories

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

#### Clean Water Act

This Product does not contain any substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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## Clean Air Act, Sec. 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPs) under Sec. 112 of the Clean Air Act.

Chemical Name	CAS No.	% by Weight	HAPs Data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
2-butoxyethanol	111-76-2	5 - 15		Group I		

## CERCLA

This material as supplied does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this material.

## U.S. State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

Chemical Name	MA	NJ	PA	IL	RI	
2-butoxyethanol	X	X	X	X	X	

## International Regulations

### Mexico – Grade

No information available

Chemical Name	Carcinogen Status	Exposure Limits
2-butoxyethanol		Mexico: TWA=400ppm Mexico: TWA=980 mg/m <sup>3</sup> Mexico: STEL=1225 mg/m <sup>3</sup> Mexico: STEL=500ppm

## Canada

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

## WHMIS Hazard Class

Non-controlled

D2B Toxic materials



Chemical Name	National Pollutant Release Inventory
2-butoxyethanol	X

## 16. OTHER INFORMATION

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**Date of Issue** 2 February 2009

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**Revision Note**

## Hazards and Emergency Overview

May be harmful if swallowed.  
Irritating to eyes.

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### Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, release and disposal, and is not to be considered as a warranty or quality specification. The information related only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text of this MSDS.

\* \* \* END OF MATERIAL SAFETY DATA SHEET \* \* \*