

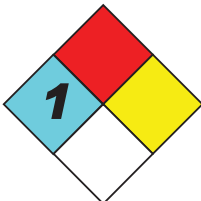
MATERIAL SAFETY DATA SHEET

PRODUCT: Leader Lens Cleaning Liquid

Issue Date: 2 February 2009

Revision Date: 3 April 2013

Revision Number: 5

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

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Leader Lens Cleaning Liquid
Product Number(s): LCS1

Recommended Use: Lens cleaner

Supplier Information:

MCR Safety
1255 Schilling Blvd. West, Collierville, TN 38017 USA
Phone: 1-901-795-5810
Toll Free: 1-800-955-6887
Contact:
Contact Phone:
Emergency Phone: Call INFOTRAK - 1-800-535-5053

2. HAZARDS IDENTIFICATION

Potential Health Effects

Acute Toxicity

Eyes
Skin

Mild eye irritant.

No adverse effects expected under typical use conditions. Prolonged exposure may cause skin dryness.

Inhalation
Ingestion

No adverse effects expected under typical use conditions.

May cause stomach or intestinal discomfort if swallowed.

Chronic Effects

No known effects based on information supplied.

Aggravated Medical Conditions

No medical conditions are known to be aggravated by exposure to this product.

Interactions w/ Other Chemicals

None known.

Environmental Hazards

See section 12

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	<0.2
Fragrance	Mixture	<0.2
Anti-Fog	56-81-5	<1
Anti-Stat	68391-01-5	<1

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4. FIRST AID MEASURES

Eye Contact	Reddening may develop. Rinse Immediately with plenty of clean water, also under eyelids, for at least 15 minutes. Keep eyes wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Minimal effects expected, and if any, are reversible. If any, immediately wash with soap and water. If irritation persists, or allergic reaction occurs, call a physician.
Inhalation	Move to fresh air.
Ingestion	Drink plenty of water to dilute. Do not induce vomiting. If stomach or intestinal upset occurs, consult a physician immediately.
Notes to Physicians	Treat symptomatically.

5. FIRE FIGHTING MEASURES

This product is stable, non-flammable in its liquid state, and will not burn.

Flammable Properties	Not flammable.
Flash Point	Not flammable
Extinguishing Media	Not flammable, non-explosive.
Uniform Fire Code	
Hazardous Byproducts of Combustion	None expected
Explosion Data	
Sensitivity to Mechanical Impact	Not sensitive
Sensitivity to Static Discharge	Not sensitive
Protective Equipment	None required
Special Precautions	
NFPA	Health Hazard: 1 Flammability: 0 Stability: 0 Physical & Chemical Hazards:

6. ACCIDENTAL RELEASE & SPILL MEASURES

Personal Precautions	Avoid contact with skin and eyes. Wash hands thoroughly after clean-up.
Containment Methods	Prevent further leakage or spillage. Dam up area.
Clean-up Methods	Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin eyes. Keep out of reach of children.
Storage	No special precautions required.

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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 ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ Skin	IDLH: 700 ppm

Engineering Measures None required under normal use.

Personal Protective Equipment

Eye & Face Protection Eye protection not required under normal use conditions.

Skin & Body Protection Repeated daily application to the skin without rinsing, or continuous contact on the skin may lead to temporary, but reversible, irritation. Rinse completely from skin after contact.

Respiratory Protection None required. Avoid breathing vapor or mist.

Hygiene Measures Generally good industrial hygiene practices. Avoid contact with eyes. Avoid breathing vapor or mist. Wash hands thoroughly after use and before eating, drinking or smoking.

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 no information available
Auto-ignition Temperature no information available
Decomposition Temperature no information available
Boiling Point 100A°C/210A°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 1.3
Specific Gravity (@20°C) 1.010
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

Conditions to Avoid None known.

Hazardous Byproducts of Decomposition None expected

Hazardous Polymerization Hazardous polymerization does not occur

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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.

Contaminated Materials

Dispose of in accordance with local regulations.

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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).

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.

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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 ³ Mexico: STEL=1225 mg/m ³ 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: none

This product contains the following substances:

Chemical Name	National Pollutant Release Inventory
2-butoxyethanol	X

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16. OTHER INFORMATION

Date of Issue 2 February 2009

Revision date 1 April 2013

Revision Note

Hazards and Emergency Overview

May be irritating to skin and eyes.
May cause irritation if swallowed.

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. Personnel handling this material must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of this material and the safety and health of employees and customers.

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