

# Material Safety Data Sheet

## Ultra Clarity® Lens Cleaner

Date of Preparation: 28-Nov-2006

Revision: 004

### Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Ultra Clarity® Lens Cleaner

**Chemical Formula:** Proprietary

**General Use:** Optics cleaning

**Manufacturer:** Nanofilm, 10111 Sweet Valley Dr., Valley View, OH 44125, Phone (800) 883-6266, FAX (216) 447-1137 (8:30 AM – 5:30 PM),

**(Emergency phone number: CHEMTREC (800) 424-9300, International: (703) 527-3887)**

### Section 2 - Composition / Information on Ingredients

Hazardous Ingredients	CAS Number	% wt
2-Propanol	67-63-0	<10

#### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Propanol	(400) ppm; (500) ppm STEL	400 ppm TWA; 980 mg/m <sup>3</sup> TWA 2000 ppm IDLH (10 percent lower explosive limit)	400 ppm TWA; 980 mg/m <sup>3</sup> TWA

### Section 3 - Hazards Identification

#### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Light greenish-blue liquid. Flash Point: 44.4°C (112°F) (Will not support combustion).

#### HMIS

H: 1

F: 2

R: 0

PPE<sup>1</sup>

<sup>1</sup>Sec. 8

#### Potential Health Effects

**Route of Entry:** Oral, skin, eye

**Effects of Acute Exposure to Product:** May irritate eyes, skin and throat. Prolonged contact with product may aggravate pre-existing dermatitis, eye contact may cause irritation or redness in eye, ingestion may produce stomach cramps or diarrhea.

**Effects of Chronic Exposure to Product:** Not known

**Toxicity Information:** Not available

### Section 4 - First Aid Measures

**Inhalation:** Drink one glass of cold water, move to fresh air

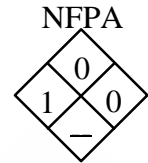
**Eye Contact:** Wash eyes with cold water

**Skin Contact:** Wash skin with cold water

**Ingestion:** Drink 1-2 glasses of cold water, if any discomfort prolongs consult physician

### Section 5 - Fire-Fighting Measures

**Flash Point:** 44.4 °C (112°F)  
**Autoignition Temperature:** NA  
**LEL:** NA  
**UEL:** NA



**Extinguishing Media:** Carbon dioxide, water, dry chemicals, foam  
**Special Fire Fighting Procedure:** Self-contained breathing apparatus and protective clothing  
**Hazardous Combustion Products:** Carbon monoxide  
**Unusual Fire and Explosion Hazards:** None

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.  
**Steps to be taken in case of spill or leaks:**  
 If the product is spilled or leaked, absorb it with absorbent material and flush residue with cold water. Small spill or leak can be wiped off by paper towel only. Provide adequate ventilation.  
**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation.  
**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. 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.  
**OSHA Vacated PELs:** 2-Propanol: 400 ppm TWA; 980 mg/m<sup>3</sup> TWA  
**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

<b>Physical State:</b> Liquid	<b>Water Solubility:</b> completely soluble
<b>Appearance and Odor:</b> Light Greenish Blue Liquid	<b>Boiling Point:</b> 100°C @ 760 mm Hg
<b>Vapor Pressure:</b> NA	<b>Freezing/Melting Point:</b> -5°C
<b>Vapor Density (Air=1):</b> NA	<b>Evaporation Rate:</b> NA
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b> 0.95	<b>Viscosity:</b> NA
<b>pH:</b> 7	

**Section 10 - Stability and Reactivity**

**Stability:** Stable  
**Conditions to Avoid:** Extreme heat and open flame  
**Incompatibility (Materials to Avoid):** None  
**Hazardous Decomposition Products:** Carbon monoxide  
**Hazardous Polymerization:** Will not occur

**Section 11- Toxicological Information**

**Pertaining to 2-Propanol only:**

**RTECS#:**

**CAS#** 67-63-0: NT8050000

**LD50/LC50:**

CAS# 67-63-0:

Oral, mouse: LD50 = 3600 mg/kg;

Oral, rabbit: LD50 = 6410 mg/kg;

Oral, rat: LD50 = 5045 mg/kg;

Skin, rabbit: LD50 = 12800 mg/kg; <BR.

**Carcinogenicity:**

CAS# 67-63-0:

**IARC:** Group 3 carcinogen

**Epidemiology:** Experimental teratogenic and reproductive effects have been reported for isopropanol. Early epidemiological studies have suggested an association between the strong acid manufacture of isopropyl alcohol and paranasal sinus cancer in workers.

**Teratogenicity:** Oral, rat: TDLo = 8 gm/kg (female 6-15 day(s) after conception) Effects on Embryo or Fetus - fetotoxicity; Oral, rat: TDLo = 32400 ug/kg (female 26 week(s) pre-mating) Effects on Embryo or Fetus - fetal death; Inhalation, rat: TCLo = 7000 ppm/7H (female 1-19 day(s) after conception) Specific Developmental Abnormalities - musculoskeletal system.

**Reproductive Effects:** Oral, rat: TDLo = 11340 mg/kg (female 45 day(s) pre-mating) Maternal Effects - menstrual cycle changes or disorders. Oral, rat: TDLo = 5040 mg/kg (female 1-20 day(s) after conception) Fertility - litter size (e.g. # fetuses per litter; measured before birth).

**Neurotoxicity:** No information available.

**Mutagenicity:** Cytogenetic analysis: Inhalation, rat = 1030 ug/m<sup>3</sup>/16W (Intermittent).

**Other Studies:** Standard Draize Test: Administration onto the skin (rabbit) = 500 mg (Mild). Standard Draize Test: Administration into the eye (rabbit) = 100 mg (Moderate). Standard Draize Test: Administration into the eye (rabbit) = 100 mg/24 H (Moderate).

**Section 12 - Ecological Information**

**Ecotoxicity:** Not available.

**Environmental Fate:** 2-Propanol is not expected to adsorb to sediment or bioconcentrate in fish. In the atmosphere, it will photodegrade primarily by the reaction with hydroxyl radicals with a half-life of one to several days. Due to its solubility in water rainout may be significant. 2-Propanol is expected to evaporate quickly from the soil surface and leach into the ground. It is predicted to volatilize in aquatic environments with a half-life of 5.4 days and may biodegrade.

**Physical/Chemical:** CAS# 67-63-0: ATMOSPHERIC FATE: When released into the atmosphere, isopropanol will photodegrade with an estimated half-life ranging from one to several days. Due to its solubility in water, rainout may be significant.

**Other:** Dangerous to aquatic life in high concentrations.

### Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

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

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

### Section 14 - Transport Information

#### DOT Transportation Data (49 CFR 172.101):

**Shipping Name:** NA  
**Shipping Symbols:** N/A  
**Hazard Class:** NA  
**ID No.:** NA  
**Packing Group:** NA  
**Label:** NA  
**Special Provisions:** NA

**Packaging Authorizations**  
 a) **Exceptions:**  
 b) **Non-bulk Packaging:**  
 c) **Bulk Packaging:**

**Quantity Limitations**  
 a) **Passenger, Aircraft, or Railcar:**  
 b) **Cargo Aircraft Only:**  
 c) **Limited quantities:**

**Vessel Stowage Requirements**  
 a) **Vessel Stowage:**  
 b) **Other:**

### Section 15 - Regulatory Information

#### US FEDERAL

##### TSCA

CAS# 67-63-0 is listed on the TSCA inventory.

##### Health & Safety Reporting List

CAS# 67-63-0: Effective Date: December 15, 1986; Sunset Date: December 15, 1996

##### Chemical Test Rules

CAS# 67-63-0: Testing required by: manufacturers; importers; processors (40

##### Section 12b

CAS# 67-63-0: 4/12b

##### 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 # 67-63-0: acute, chronic, flammable.

##### Section 313

This material contains 2-Propanol (CAS# 67-63-0), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

##### Clean Air Act:

This material does not contain any hazardous air pollutants. 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# 67-63-0 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:**

None

**Risk Phrases:**

None

**Safety Phrases:**

S 7 Keep container tightly closed. S 9 Keep container in a well-ventilated place.

**WGK (Water Danger/Protection)**

CAS# 67-63-0: 1

**Canada**

CAS# 67-63-0 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of B3, D2B.

CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

**Exposure Limits**

CAS# 67-63-0: OEL-AUSTRALIA: TWA 400 ppm (980 mg/m<sup>3</sup>); STEL 500 ppm (1225 mg/m<sup>3</sup>) OEL-BELGIUM:

TWA 400 ppm (985 mg/m<sup>3</sup>); STEL 500 ppm (1230 mg/m<sup>3</sup>) OEL-DENMARK: TWA 200 ppm (490 mg/m<sup>3</sup>); Skin

OEL-FRANCE: STEL 400 ppm (980 mg/m<sup>3</sup>) OEL-GERMANY: TWA 400 ppm (980 mg/m<sup>3</sup>) OEL-JAPAN: STEL

400 ppm (980 mg/m<sup>3</sup>) OEL-THE NETHERLANDS: TWA 400 ppm (980 mg/m<sup>3</sup>); Skin OEL-THE PHILIPPINES:

TWA 400 ppm (980 mg/m<sup>3</sup>) OEL-RUSSIA: STEL 400 ppm (10 mg/m<sup>3</sup>) OEL-SWEDEN: TWA 150 ppm (350

mg/m<sup>3</sup>); STEL 250 ppm (600 mg/m<sup>3</sup>) OEL-SWITZERLAND: TWA 400 ppm (980 mg/m<sup>3</sup>); STEL 800 ppm OEL-

TURKEY: TWA 200

ppm (500 mg/m<sup>3</sup>) OEL-UNITED KINGDOM: TWA 400 ppm (980 mg/m<sup>3</sup>); STEL 500 ppm; Skin OEL IN BULGARIA,

COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI

TLV

**Section 16 - Other Information**

**Prepared By:** Vice President, Technology

**Revision Notes:** 28-Nov-2006

Replace Issue 003 dated 18-Dec-2002

Replace Issue 002 dated 04-Oct-2001 to correct WHMIS classification.

Replace Issue 001 dated 24-July-1999 to update format.

**Additional Hazard Rating Systems:** N/A

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