

MATERIAL SAFETY DATA SHEET**SECTION I - PRODUCT IDENTIFICATION****Product identifier:** ROSCO LENS CLEANER**Product use:** Lens cleaner**Number:** 299 7292 11, 299 7216 14**Chemical Class:** Organic solution**Supplier name and address:**Rosco Laboratories Ltd.
1241 Denison St., #44
Markham, ON, L3R 4B4 Canada**Manufacturer name and address:**Rosco Laboratories Ltd.
52 Harbour View Ave.,
Stamford, CT., 06902, USA**Emergency Telephone #:** (203) 708-8900**WHMIS Classification:** D2A; D2B**HMIS Rating:** H- 2*; F - 2; R - 0; Protective Equipment - B**SECTION II - HAZARDOUS INGREDIENTS**

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>LC₅₀, ppm (inhalation, rat)</u>	<u>LD₅₀, mg/kg (Oral, rat)</u>
Ethanol	64-17-5	60-100	21,000/4H (mouse)	3450 (mouse)

SECTION III- PHYSICAL DATA**Physical state, odour and appearance:** Clear liquid with a sweetish alcohol odour**Odour threshold:** For Ethanol: 100 ppm (recognition)**Specific gravity (at 20°C):** 0.87 (7.3 lbs/gal)**Coefficient of water/oil distribution:** Log P(oct) = -0.32 (measured) (ethanol)**Vapour pressure (mm Hg @ 20°C):** 5.9 kPa (44.3 mm Hg) at 20°C (ethanol)**Boiling point:** 86°C (186°F)**Freezing point:** N/Av**pH:** N/Av**Vapour density (Air=1.0):** 1.59 (ethanol)**Evaporation rate (Diethyl ether=1.0):** Slower than ether**Volatiles, %:** 99**Solubility in water (w/w):** Appreciable (10-99%)

SECTION IV- FIRE AND EXPLOSION HAZARDS

Conditions of flammability: Does not qualify as a combustible liquid. Caution: Closed containers may explode when exposed to extreme heat (due to build-up of steam pressure).

Means of extinction: Use any NFPA approved fire extinguisher (for example, water, foam or dry chemical).

Special fire-fighting procedures: Fire-fighters should wear self-contained breathing apparatus in pressure-demand mode (MSHA/NIOSH approved or equivalent), as well as full protective gear.

Sensitivity to mechanical impact/static discharge: Not sensitive to mechanical impact. Sensitive to static discharge.

Flash point (Method): None

Lower/upper flammable limits (% by volume): LFL: 3.3% (Ethanol). UFL: 19% (Ethanol).

Auto-ignition temperature: 363°C (685°F) for ethanol

Hazardous combustion products: Burning may release toxic or suffocating gases such as carbon dioxide and carbon monoxide. Containers may explode if exposed to extremely high temperatures.

SECTION V - REACTIVITY HAZARDS

Stability: Product is stable under normal conditions. Hazardous polymerization will not occur.

Incompatible materials: Keep away from strong oxidizers and acids.

Conditions of reactivity: When exposed to ignition sources or high temperatures, product may decompose.

Hazardous decomposition products: Burning may give off a toxic or suffocating smoke, containing carbon dioxide and carbon monoxide.

SECTION VI- TOXICOLOGICAL PROPERTIES

Routes of exposure and acute/chronic effects

Exposure limits: Ethanol: ACGIH-TLV 1000 ppm; OSHA PEL 1000 ppm.

Routes of entry: Eyes, skin, inhalation and oral

Inhalation: Excessive inhalation can cause nasal and respiratory irritation, headaches and dizziness.

Skin contact: May be mildly irritating. Absorption of ethanol through the skin is minimal.

Eye contact: Contact with liquid can cause moderate to severe irritation of eyes.

Ingestion: Low order of toxicity. Swallowing large amounts can cause gastrointestinal irritation, nausea, vomiting and central nervous system depression. Based on animal evidence and its physical properties, ethanol can be aspirated into the lungs during ingestion or vomiting. Aspiration can cause potentially fatal injury to the lungs.

Chronic effects: Prolonged skin contact can cause dermatitis. May aggravate pre-existing skin conditions.

Carcinogenicity: No ingredients listed as carcinogens by IARC or ACGIH.

Teratogenicity, mutagenicity, other reproductive effects: There are no reports of reproductive damage due to strictly industrial exposure to ethanol. However, exposure to ethanol by ingestion during pregnancy can result in "fetal alcohol syndrome".

Sensitization to material: Product is not known to cause allergies.

Synergistic materials: Ethanol has been associated with an increase in the toxicity of many chemicals including other alcohols, ketones, benzene, toluene, halogenated hydrocarbons, aromatic amines and nitrosamines. In particular, it enhances the activity of many chemicals that are harmful to the liver (hepatotoxic agents). There is also a synergistic effect between ethanol and certain metals (e.g. cobalt, manganese and mercury) or compounds containing these metals. Some chemicals (e.g. thiuram disulfides or "antabuse", dimethylformamide and cyanamide) can decrease or slow the metabolism of ethanol thereby increasing the toxic effects of ethanol.

SECTION VII - FIRST AID

Inhalation: Move person to fresh air. If breathing has stopped, start artificial respiration and call a physician or Poison Control Centre right away. Never give anything by mouth to an unconscious person.

Skin: Wash affected areas with lots of soap and water. Remove contaminated clothing, shoes and other leather goods promptly. Get medical attention if irritation or rash develops.

Eyes: Flush eyes with water, lifting the lids, for 15 minutes. Get medical attention right away.

Ingestion: If directed by a physician, induce vomiting. Otherwise, give the person one or two glasses of water to drink, and call a physician or Poison Control Centre right away.

SECTION VIII - PREVENTIVE MEASURES

Spill, leak or release: Shut off and eliminate all ignition sources. Where safe to do so, stop spill at source. Prevent material from entering sewers, streams or other waterways. Absorb with inert material, and reclaim into sound containers for proper disposal in an approved manner (see below). Flush contaminated area with water.

Waste disposal: Consult federal, provincial and local regulations for allowed means of disposal. Keep product out of sewers and waterways. Empty containers may still contain a residue; follow safety instructions at all times.

PROTECTIVE EQUIPMENT

Respiratory protection: Not normally required. Use a MSHA or NIOSH-approved respirator equipped with an organic vapour filter cartridge in areas where exposure limits are exceeded.

Engineering controls: Provide adequate airflow for ventilation.

Protective gloves: Wear gloves made of chemical-resistant material, such as neoprene.

Eye protection: Chemical splash goggles should be worn to protect against splashes.

Other protective equipment: An eyewash station should be located in the work area. Have a source of clean water available to flush eyes and skin.

STORAGE AND HANDLING

Handling procedures and equipment: Avoid contact with eyes, and prolonged contact with skin. Use with adequate ventilation. Keep away from sparks, heat and flames. Follow approved first aid procedures when accidents occur. Empty containers retain residue and can be dangerous. Do not take internally. **Keep out of reach of children.**

Storage requirements: Store in a cool, dry, well ventilated area, away from incompatibles.

Special shipping instructions: TDG classification: Not regulated.

SECTION IX - PREPARATION INFORMATION

Prepared by: Rosco Laboratories Ltd.

Telephone #: (905) 475-1400

Preparation date: January 5th 2007

DISCLAIMER

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Additional notes or references:

Abbreviations:

ACGIH:	American Conference of Governmental Industrial Hygienists
IARC:	International Agency for Research on Cancer
MSHA:	Mine Safety and Health Administration
N/Ap	Not applicable
N/Av:	Not available
NIOSH:	National Institute for Occupational Safety and Health
PEL:	Permissible Exposure Limit
TDG:	Transportation of Dangerous Goods Act
TLV:	Threshold Limit Values
TCC:	Tagliabue Closed Cup flash point test

References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 1998.
 2. International Agency for Research on Cancer Monographs, Supplement 7, 1988.
 3. Canadian Centre for Occupational Health and Safety. CHEMINFO database.
 4. Material Safety Data Sheets from manufacturer.
 5. N. Irving Sax. Dangerous Properties of Industrial Materials, Seventh Edition.
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