



**KLEARGO Inc**  
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## SAFETY DATA SHEET

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### 01 - IDENTIFICATION

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MATERIAL NAME

### PURE NEUTRALIZER

Use: Lens Cleaner Concentrate.

Vendor : KLEARGO INC.  
Address : 5555 Bois Franc  
City :St-Laurent Prov: Qc. Postal Code: H4S 1B1  
Tel: 514 335-6585 Fax:514 335-9120  
EMERGENCY PHONE NUMBER: CANUTEC at 1-888-CAN-UTEC (226-8832) or 613-996-6666

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### 02 - HAZARD IDENTIFICATION

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#### GHS (WHMIS 2015) CLASSIFICATION:

ACUTE TOXICITY (ORAL) - CATEGORY 5  
SPECIFIC TARGET ORGAN TOXICITY — REPEATED EXPOSURE — CATEGORY 2 (ORAL)  
SKIN IRRITATION - CATEGORY 3  
EYE IRRITATION - CATEGORY 2B

#### GHS PICTOGRAM:



**SIGNAL WORD:** WARNING

#### HAZARD STATEMENTS:

H320 Causes eye irritation.  
H316 Causes mild skin irritation.  
H373 May cause damage to organs (kidney) through prolonged or repeated exposure if swallowed.  
H303 May be harmful if swallowed.

#### PRECAUTIONARY STATEMENTS (PREVENTION):

P264 Wash exposed skin thoroughly after handling.  
P260 Do not breathe mist/vapors/spray.

#### PRECAUTIONARY STATEMENTS (RESPONSE):

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.  
P337+P313 IF eye irritation persists: Get medical advice/attention.  
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.  
P314 Get medical advice/attention if you feel unwell.  
P312 Call a POISON CENTER or doctor/ if you feel unwell.

#### PRECAUTIONARY STATEMENTS (STORAGE AND DISPOSAL):

P501 Dispose of contents/container in accordance with municipal/ provincial/federal regulations.

**03 - COMPOSITION / INFORMATION ON INGREDIENTS**

INGREDIENTS	CONC.	#CAS
DIETHYLENE GLYCOL	60-100	111-90-0
MONOETHYL ETHER		
ETHYLENE GLYCOL	15-40	107-21-1

The other ingredients present in the composition do not constitute a health hazard or a physical hazard as per GHS 2015 regulations.

**04 - FIRST AID MEASURES**

- EYES:** Flush eyes with large amounts of water for at least 15 minutes, holding eyelids apart to ensure a thorough washing of entire eye. **Seek medical attention urgently, preferably from an ophthalmologist.**
- SKIN:** In case of skin contact.. remove any contaminated clothing and wash affected area with plenty of soap and water. Wash clothing and decontaminate shoes before reuse. If irritation persists, get medical attention.
- INGESTION:** **Get medical attention without delay.** If ingested, have victim drink two glasses of water. Never give anything by mouth if the victim is unconscious. Induce vomiting if conscious .Keep head below hips to prevent aspiration of liquid into lungs.
- INHALATION:** In case of inhalation, remove to fresh air. Aid in breathing, if necessary. If symptoms persist, seek immediate medical attention.

**NOTE TO PHYSICIAN:**

Contains ethylene glycol.. it is estimated that the lethal oral dose to adults is of the order of 1.0-1.2 ml/kg. This glycol produces metabolites that cause an elevated anion-gap metabolic acidosis and renal tubular injury. Liver injury may occur, but not as severe as kidney injury. The signs and symptoms in glycol poisoning are those of metabolic acidosis, CNS depression, and kidney injury. Urinalysis may show albuminuria, hematuria, and oxaluria. The currently recommended medical management of glycol poisoning includes elimination of the glycol and its metabolites, correction of metabolic acidosis, and prevention of kidney injury. It is essential to have immediate and follow-up urinalysis and clinical chemistry. There should be particular emphasis on acid-base balance, and liver and kidney function tests. The principal toxic effects of ethylene glycol, when swallowed are kidney damage and metabolic acidosis. Ethanol is antidotal, and its early administration may block the formation of nephrotoxic metabolites of ethylene glycol in the liver. A desired therapeutic level of ethanol in blood is 100-150 mg/dl and should be achieved by a rapid loading dose and maintained by intravenous infusion. For severe and/or deteriorating cases, hemodialysis may be required. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood ethylene glycol concentration greater than 25 mg/dl, or compromise of renal functions. 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenase, has been effectively used to decrease the metabolic consequences of ethylene glycol poisoning before coma, seizure, and renal failure have occurred. Additional therapeutic measures may include the administration of cofactors involved in the metabolism of ethylene glycol. Thiamine (100mg) and Pyridoxine (50mg) should be given every six hours. Pulmonary oedema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. The mechanism of production has not been elucidated, but it appears to be non-cardiogenic in origin in several cases. Respiratory support with mechanical ventilation and positive end-expiratory pressure may be required. There may be cranial nerve involvement in the late stages of toxicity from swallowed ethylene glycol. In particular, effects have been reported involving the seventh, eighth and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing, and dysphagia.

**05 - FIRE FIGHTING MEASURES**

Flammability: See flashpoint.

If yes, under which conditions:

Extinguishing media..... Apply alcohol-type or all purpose-type foam by manufacturers' recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

Special procedures..... Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity. Wear full protective equipment including a self-contained breathing apparatus.

Flash point (C), method..... 102 ..Pensky-Martens closed cup (as diethylene glycol monoethyl ether).

Auto ignition temperature..... N/AV.

Upper flammable limit (% by vol.)..... 23.5.

Lower flammable limit (% by vol.)..... 1.2.

Explosion data..... N/AV.

Explosive power..... N/AV.

Rate of burning..... N/AV.

Sensitivity to static discharge..... N/AV

Sensitivity to impact..... N/AV.

Hazardous combustion products.. Burning can produce: carbon monoxide, carbon dioxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

**06 - ACCIDENTAL RELEASE MEASURES**

See Sect. 2 & 8 for precautions. Maintain good personal hygiene.

LEAK/SPILL.....Avoid direct contact with material. Wear protective equipment. Avoid ignition sources. Stop leak if safe to do so. Contain spilled material. Absorb with an inert absorbent. (Sand or clay). Collect for disposal. Avoid discharge to natural waters and sewers.

Wash affected area with water to remove residues.

Floors may be slippery after washing. Notify environmental authorities for large spills.

**07 - HANDLING AND STORAGE**

**Handling procedures and equipment:** Avoid contact with eyes, skin, and clothing. Do not swallow. Avoid breathing mist or vapour. Wear protective equipment during handling. Use with adequate ventilation. Handle in accordance with good industrial hygiene and safety practices. Keep containers closed or sealed. Empty containers may contain hazardous product residues. Follow label warnings even after container is emptied. Ground all equipment. Wash thoroughly after handling.

**Storage needs:** Store in a cool, dry, well-ventilated place away from incompatibles. Keep the container tightly closed when not in use.

**08 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

Gloves (type):	Wear chemical impervious gloves. Rubber or neoprene.
Eye (type):	Chemical safety goggles. It is common procedure to not wear contact lenses when handling chemicals.
Protective clothing:	Wear protective clothing. Wear rubber apron and safety boots where splashing may occur.
Respiratory protection:	Where airborne concentrations are expected to exceed exposure limits, NIOSH or MSHA approved breathing air equipment or face mask with organic vapour cartridge and dust or mist pre-filter. For Emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus.
Engineering controls:	Good general ventilation should be sufficient for most conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, mechanical generation of dusts, heating, drying, etc..
Other:	Eye bath and potable water source for washing or safety shower (when handling large quantities).
Additional information:	Warning: sudden release of hot organic chemical vapours or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis or the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

**09 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical state and appearance:	clear colorless/ lightly amber liquid, slightly viscous
Odor :	Characteristic mild odor
pH :	N/AV
Melting point/ Freezing point °C:	approx. -13 (Ethylene glycol)
Initial Boiling point and boiling range °C	196-200
Flash point °C	~96
flammability in the case of solids and gases	N/AP
upper and lower flammability or explosive limits	N/AV
Vapor pressure:	N/AV
Vapor density:	N/AV
Relative density :	1.035
Evaporation rate :	N/AV
Solubility in water:	completely miscible
Partition coefficient - n-octanol/water:	N/AV
Auto-ignition temperature:	N/AV
Decomposition temperature:	N/AV
Viscosity :	N/AV

**10 - STABILITY AND REACTIVITY**

Chemical stability:	
Yes.....	Stable under recommended storage conditions.
No, which conditions?.....	Extremes of temperature and direct sunlight.
Incompatibility with other substances:	Yes
If so which ones?.....	Strong acids. Strong bases. Strong oxidizing agents. Acid chlorides, acid anhydrides.

Reactivity conditions?.....	Excessive heat.
Hazardous products of decomposition.....	Carbon oxides. See hazardous combustion products.
Hazardous polymerization.....	Will not occur.

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## 11 - TOXICOLOGICAL INFORMATION

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LD 50 OF MATERIAL (define animal species and route). ATE Mix >2,000 mg/Kg (rat/oral)

ATE Mix > 2,000 mg/kg (dermal/rabbit)

LC 50 OF MATERIAL (define animal species and route). ATE Mix > 20.0 mg/l (inhalation/4hr/vapor)

### Epidemiology:

No particular data available. Compounds can be harmful in case of ingestion.

Health Hazards Not Otherwise Classified: No data available. It is generally known that pregnant and lactating women should avoid prolonged or repeated exposure to most chemical solvents.

SKIN CORROSION / IRRITATION

MILD SKIN IRRITATION.

SERIOUS EYE DAMAGE / EYE IRRITATION

MILD EYE IRRITATION.

RESPIRATORY OR SKIN SENSITIZATION

NO DATA AVAILABLE.

GERM CELL MUTAGENICITY

NO EVIDENCE FOUND OF MUTAGENICITY.

CARCINOGENICITY ACGIH: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY ACGIH. IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY IARC.

REPRODUCTIVE TOXICITY

DOES NOT IMPAIR FERTILITY. NOT A DEVELOPMENTAL TOXICANT. OVER EXPOSURE MAY CAUSE REPRODUCTIVE DISORDERS BASED ON TESTS WITH LABORATORY ANIMALS.

STOT- SINGLE EXPOSURE

NO DATA AVAILABLE.

STOT - REPEAT EXPOSURE

MAY CAUSE DAMAGE TO ORGANS (KIDNEYS) THROUGH PROLONGED OR REPEATED EXPOSURE IF SWALLOWED.

ASPIRATION HAZARD

NO DATA AVAILABLE.

### POTENTIAL HEALTH EFFECTS

INHALATION - MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION.

INGESTION - MAY BE HARMFUL IF SWALLOWED.

EYES - MAY CAUSE EYE IRRITATION.

SKIN - MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. MAY CAUSE SKIN IRRITATION.

**SIGNS AND SYMPTOMS OF EXPOSURE:** WHEN INGESTED, EARLY SYMPTOMS MIMIC ALCOHOL INEBRIATION AND ARE FOLLOWED BY NAUSEA, VOMITING, ABDOMINAL PAIN, WEAKNESS, MUSCLE TENDERNESS, RESPIRATORY FAILURE, CONVULSIONS, CARDIOVASCULAR COLLAPSE, PULMONARY EDEMA, HYPOCALCEMIC TETANY AND SEVERE METABOLIC ACIDOSIS. WITHOUT TREATMENT, DEATH MAY OCCUR IN 8 TO 24 HOURS. VICTIMS WHO SURVIVE THE INITIAL TOXICITY PERIOD USUALLY DEVELOP RENAL FAILURE ALONG WITH BRAIN AND LIVER DAMAGE. EXPOSURE TO AND/OR CONSUMPTION OF ALCOHOL MAY INCREASE TOXIC EFFECTS.

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## 12 - ECOLOGICAL INFORMATION

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### Diethylene Glycol Monomethyl Ether :

Ecotoxicity:

Not expected to be harmful to aquatic organisms.

Environmental effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Aquatic toxicity:

The product should not be allowed to enter drains, water courses or the soil.

Persistence and degradability

Readily biodegradable.

Mobility in environmental media: High water solubility indicates a high mobility in soil.

### Ethylene Glycol:

Ecotoxicity:

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Persistence and Degradability

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

Bioaccumulative potential Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Mobility in soil:

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process., Potential for mobility in soil is very high

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**13 - DISPOSAL CONSIDERATIONS**

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Do not contaminate or pollute by careless disposal practices. Return empty containers to a disposal site or to a reconditioner for proper recycling. All other waste is to be disposed of according to municipal, provincial, or federal regulations.

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**SECTION 14 - TRANSPORT INFORMATION**

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Product not regulated for transport.

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**SECTION 15 - REGULATORY INFORMATION**

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SPECIFIC TARGET ORGAN TOXICITY — REPEATED EXPOSURE — CATEGORY 2 (ORAL)  
SKIN IRRITATION - CATEGORY 3  
EYE IRRITATION - CATEGORY 2B

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE HAZARDOUS PRODUCTS ACT AND THE SDS CONTAINS ALL THE INFORMATION REQUIRED BY THE HPR

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**SECTION 16 - ADDITIONAL INFORMATION**

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**ADDITIONAL NOTES AND REFERENCES:**

N/AV = not available                      N/AP= not applicable    N/D = not determined.

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