MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name	Phone Number			CHEMTREC
Nu-Calgon Wholesaler, Inc.	(314) 469-7000 / (800) 554-5499			(800) 424-9300
Street Address	**City**	**State**	**Postal Code**	**Last Update**
2008 Altom Court	St. Louis	MO	63146-4151	1/25/07
Product Name	**Product Number**	**Product Use**		**EPA Registration #**
Cal-Blue Plus Gas Leak Detector	4182	Gas Leak Detector		N/A

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	% By Wt.	CAS Number	TLV	PEL
Ethylene Glycol	15-25%	107-21-1	50ppm (ACGIH Ceiling)	50ppm
Surfactant Mixture	1-5%	Proprietary	None Established	None Established
Water	60-80%	7732-18-5	None Established	None Established
Other ingredients are present at less than 1% or are trade secrets.				

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: Contains Ethylene Glycol - do not use in food, drug, cosmetic or potable water applications. Harmful or fatal if swallowed - aspiration hazard if swallowed - can enter lungs and cause damage. Can cause kidney and liver damage if swallowed. Do not get in eyes, on skin or clothing. Avoid breathing spray or mist. Use only with adequate personal protection equipment.

Potential Health Effects

Eyes: Prolonged or repeated contact with eyes may cause irritation, reddening and drying.

Skin: Prolonged or repeated contact with skin may cause irritation, reddening, drying and cracking of skin. Absorption through skin possible. See warnings for chronic or long term skin exposure.

Ingestion: Material is toxic. Harmful or fatal if swallowed - may cause nausea, central nervous system damage, headache, weakness, confusion, slurred speech, loss of coordination, cardiopulmonary effects, cardiac failure, coma and convulsions. Aspiration hazard if swallowed - can enter lungs and cause damage. Can cause kidney and liver damage if swallowed. Lethal dose is approximately 20 ounces based on toxicity of ethylene glycol.

Inhalation: Vapors or mists in excess of permissable concentrations, or in unusually high concentrations as from exposure in poorly ventilated areas or confined spaces may cause irritation of nose and throat, headache, nausea, and drowsiness. Prolonged or repeated overexposure may cause ingestion effects.

Chronic Exposure: Repeated ingestion or overexposure to ethylene glycol may cause birth defects based on animal data as well as kidney and liver damage, and nervous system damage. Repeated contact with skin may result in absorption of harmful amounts.

Carcinogenicity: None

Medical Conditions Aggravated be Exposure: Preexisting kidney disorders, lung disorders, and dermatitis.

SECTION 4 – FIRST AID MEASURES

Eyes: Immediately flush with water for at least 15 minutes and call a physician. Hold eyelids apart while flushing to rinse entire surface.

Skin: Remove contaminated clothing. Wash with large amounts of soap and water for several minutes. Consult a physician in the case of any prolonged irritation

Ingestion: If person is conscious and can swallow, immediately give 2 glasses of water and induce vomiting. After vomiting occurs, give fluids again. Contact a physiciam IMMEDIATELY!

Inhalation: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: >220°F
Autoignition Temp: N/A°C/N/A°F
Hazardous Products of Combustion: Burning can produce oxides of carbon and other substances.
Flammable Limits in Air: N/A
Extinguishing Media: This product is not combustible. Water spray, foam, CO2 or dry chemicals may be used in areas where this product is stored.
Fire and Explosion Hazards: Do not enter confined fire-spaces without protective clothing and self-contained air supply.
Special Firefighting Procedures: Do not enter confined fire-spaces without protective clothing and self-contained air supply.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: Safely stop spill at source. Contain spill by diking with soil or other inert material. Mop, pump or absorb with inert material and reclaim into sound container for proper disposal. Prevent entry into sewers and waterways.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Minimum feasible handling temperatures should be maintained. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Avoid breathing mists or vapors. Harmful or fatal if swallowed.
Storage Requirements: Keep container closed when not in use. For industrial use only.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Use with adequate ventilation. Specific use conditions (spraying/confined spaces) where regulatory limits for ethylene glycol are exceeded, may require local exhaust ventilation to prevent release of mist &/or vapors into work environment. If ventilation in not adequate, use NIOSH/MSHA approved respirator .
Eye Protection: Safety Glasses/Goggles
Protective Clothing: Chemical resistant gloves recommended. No special requirements - work clothing appropriate to minimize contact/reduce exposed skin area.
Exposure Guidelines: Ethylene Glycol TLV = 50ppm. Eye wash station and safety shower in handling area.
Specific Engineering Controls (such as ventilation, enclosed process): Insure adequate ventilation to control ethylene glycol airborne concentration below TLV of 50ppm. Eye wash station and safety shower in handling area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Viscous Liquid	**Freezing Point:** -9°C/15°F	**% Volatile by Weight:** ~78%
Color: Clear, Blue	**Vapor Density [air =1]:** Not Determined	**Evaporation Rate:** vs. H2O: about the same
Odor: Characteristic Mild Odor	**Vapor Pressure:** Not Determined	**Specific Gravity:** (H20=1): 1.0 (+/- 0.05)
Boiling Point: 100°C/212 (IBP)°F	**Solubility in Water:** Complete	**pH (concentrate):** 8.3 (+/- 0.5)

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable
Hazardous Polymerization: None
Incompatibilities: Strong acids/oxidizers. Do not mix with chlorinated detergents (bleach).
Reactive Conditions to avoid: N/A
Decomposition Products: Burning can produce oxides of carbon, as well as aldehydes, Ketones, and other substances.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
Ethylene Glycol	107-21-1	203-473-3	1000mg/kg (human)	130mg/m3 (mouse, 2hr)

SECTION 12 – ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data
Ethylene Glycol	LC50 (96hr) Rainbow Trout = 41,000 mg/l

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in an approved waste facility according to Federal, State and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: No Data.

Purview	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT (Land)	Not Regulated in containers 55 gal or less			
IMO (Water)	No Data.			
ICAO (Air)	No Data.			

SECTION 15 – REGULATIORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	Class D - Division 2A - Teratogen
SARA Title III: (Superfund Amendments & Reauthorization Act)	Contains Ethylene Glycol at 15-25% by weight.
OSHA: (Occupational Safety & Health Administration)	OSHA Hazardous - Acute & Chronic hazard
TSCA: (Toxic Substance Control Act)	All ingredients are TSCA registered.
VOC: (volatile Organic Compounds)	Less than 1%
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations
EINECS: (European Inventory of Existing Commercial Chemical Substances)	No Data.
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	Not all ingredients within this product are on the DSL and/or NDSL.
CERCLA: (Comprehensive Response Compensation & Liability Act)	>5,000 lbs
IDL: (Canadian Ingredient Disclosure List)	Ethylene glycol is listed. Other ingredients are below disclosure.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health = 2* Flammability = 0 Reactivity = 0

SECTION 16 – OTHER INFORMATION

The antidotes for ethylene glycol poisoning are ethanol or fomepizole; antidotal treatment forms the mainstay of management following ingestion. Ethanol (usually given IV as a 5 or 10% solution in 5% dextrose and water, but, also sometimes given in the form of a strong spirit such as whisky, vodka or gin) acts by competing with ethylene glycol for the enzyme alcohol dehydrogenase thus limiting the formation of toxic metabolites.