SAFETY DATA SHEET

Sid Harvery item #'s 4182-08,4182-24 & 4182-53 SDS # Z0402

1. Product and Company Identification

Product identifier **Cal-Blue Plus Gas Leak Detector (4182-01, 4182-08, 4182-24, 4182-53)**

Other means of identification Not available

Recommended use Gas Leak Detector

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Nu-Calgon

Address 2008 Altom Court
St. Louis, MO 63146
United States

Telephone 314-469-7000 / 800-554-5499

E-mail info@nucalgon.com

Emergency phone number 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
1,2-Propanediol		57-55-6	25

4. First Aid Measures

Inhalation Not a normal route of exposure. If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Skin contact Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

Eye contact Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

Ingestion Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Suitable extinguishing media	Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	Ensure adequate ventilation. Avoid prolonged exposure. Use care in handling/storage. Avoid contact with eyes, skin and clothing.
Conditions for safe storage, including any incompatibilities	Keep away from heat, open flames or other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	See above
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Safety goggles or glasses.
Skin protection	
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Other	As required by employer code. Wear suitable protective clothing.
Respiratory protection	Not normally required if good ventilation is maintained. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Thermal hazards	Not applicable.

General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid.
Color	Blue
Odor	Neutral
Odor threshold	Not available.
pH	8.1 - 8.5 (Concentrate)
Melting point/freezing point	15 °F (-9.44 °C)
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available
Flash point	Not available.
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available
Vapor density	Not available
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available
Decomposition temperature	Not available.
Viscosity	325 - 425 cPs

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

11. Toxicological Information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
1,2-Propanediol (CAS 57-55-6)		
Acute		
Dermal		
LD50	Rabbit	20800 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Dog	19000 mg/kg
	Guinea pig	184000 mg/kg
	Mouse	23900 mg/kg
	Rabbit	14800 mg/kg
	Rat	20000 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Exposure minutes Not available.

Erythema value Not available.

Oedema value Not available.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

Further information This product has no known adverse effect on human health.

12. Ecological Information

Ecotoxicity See below

Components		Species	Test Results
1,2-Propanediol (CAS 57-55-6)			
Crustacea	EC50	Daphnia	10000 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

1,2-Propanediol	-0.92

Mobility in soil No data available.

Mobility in general Not available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

IATA/ICAO (Air)

Not regulated as dangerous goods.

IMDG (Marine Transport)

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

1,4-Dioxane (CAS 123-91-1)	Listed.
Formaldehyde (CAS 50-00-0)	Listed.

US - Minnesota Haz Subs: Listed substance

1,2-Propanediol (CAS 57-55-6)	Listed.

US - New Jersey RTK - Substances: Listed substance

1,2-Propanediol (CAS 57-55-6)	Listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

1,2-Propanediol (CAS 57-55-6)	Listed.

US. Rhode Island RTK

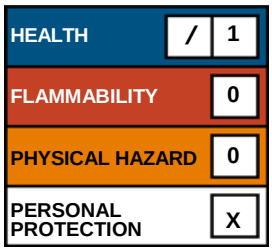
Not regulated.

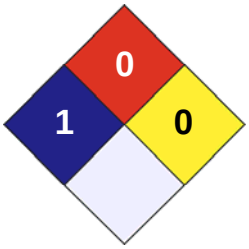
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 22-September-2014

Further information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Other information This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Prepared by Nu-Calgon Technical Service Phone: (314) 469-7000

Nu-Calgon
Wholesaler, Inc.

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 physician 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 ehemieals may bc 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 eonfined firc-spaees 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 eontainer 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 eontact 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. Speeific use conditions (spraying/confined spaces) where regulatory limits for ethylene glycol are exeeeded, may require loeal 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 earbon, 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 Aet)	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 (usnally 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.

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or thc results to be obtained from the use thereof. Nu-Calgon Wholesalcr Inc. assumes no liability for injury from the use of the product described herin.