SAFETY DATA SHEET

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol</td>
<td></td>
<td>57-55-6</td>
<td>25</td>
</tr>
</tbody>
</table>

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.

Environmental precautions
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol (CAS 57-55-6)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Aerosol</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Expected to be a low ingestion hazard.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Prolonged inhalation may be harmful.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No adverse effects due to skin contact are expected.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
</tbody>
</table>

**Information on toxicological effects**
### Acute toxicity

#### Components

<table>
<thead>
<tr>
<th>1,2-Propanediol (CAS 57-55-6)</th>
</tr>
</thead>
</table>

#### Acute

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>20800 mg/kg</td>
</tr>
</tbody>
</table>

#### Dermal

| LC50 | Not available |

#### Inhalation

| LC50 | Not available |

#### Oral

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog</td>
<td>19000 mg/kg</td>
</tr>
<tr>
<td>Guinea pig</td>
<td>184000 mg/kg</td>
</tr>
<tr>
<td>Mouse</td>
<td>23900 mg/kg</td>
</tr>
<tr>
<td>Rabbit</td>
<td>14800 mg/kg</td>
</tr>
<tr>
<td>Rat</td>
<td>20000 mg/kg</td>
</tr>
</tbody>
</table>

#### 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

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol</td>
<td>Daphnia</td>
<td>10000 mg/L, 48 Hours</td>
</tr>
</tbody>
</table>

#### Aquatic

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water flea (Daphnia magna)</td>
<td>&gt; 10000 mg/L, 48 hours</td>
</tr>
</tbody>
</table>

#### 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)

**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