1. Identification

Product identifier: Renulite Headlight Sealant Aerosol

Other means of identification

- Product Code: 137306
- Recommended use: Not available.
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

- Company name: Presta Products
- Address: 361 Fairview Ave
- Barberton, OH 44203
- United States
- Telephone: Phone 800-253-2526; Fax 330-777-8317
- Website: www.prestaproducots.com
- E-mail: mdssinfo@malcopro.com
- Contact person: Technical Department
- Emergency phone number: Phone 1-800-424-9300

Australian Distributor

- Company name: Pacer Auto Products Pty Ltd
- Address: 1 Highgate Street
- Auburn NSW 2144
- Australia
- Telephone: (02) 9647 2056; (02) 9647 2043
- Website: www.pacer.com.au
- E-mail: sales@pacer.com.au

2. Hazard(s) identification

Physical hazards

- Flammable gases: Category 1
- Flammable aerosols: Category 1
- Gases under pressure: Compressed gas

Health hazards

- Serious eye damage/eye irritation: Category 2
- Specific target organ toxicity, single exposure: Category 3 respiratory tract irritation
- Specific target organ toxicity, single exposure: Category 3 narcotic effects

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements

Signal word: Danger

Hazard statement: Extremely flammable gas. Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye/face protection.

Response

- If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. Leaking gas: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage

- Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

- Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
None.

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>2-butanol</td>
<td></td>
<td>78-92-2</td>
<td>40 - &lt; 50</td>
</tr>
<tr>
<td>Dimethyl Ether</td>
<td></td>
<td>115-10-6</td>
<td>20 - &lt; 30</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>30 - &lt; 40</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed
Irritation of nose and throat. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Water. None known.

Specific hazards arising from the chemical
Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Special protective equipment and precautions for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions
DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Do not direct water at source of leak or safety devices as icing may occur. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards
Extremely flammable aerosol. Extremely flammable gas.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up
Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors or divert vapor cloud drift. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, watercourses or onto the ground.

7. Handling and storage

Precautions for safe handling
Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Level 2 Aerosol.
Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Refrigeration recommended. 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>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanol (CAS 78-92-2)</td>
<td>PEL</td>
<td>450 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanol (CAS 78-92-2)</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanol (CAS 78-92-2)</td>
<td>STEL</td>
<td>455 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 ppm</td>
</tr>
<tr>
<td>2-butanol (CAS 78-92-2)</td>
<td>TWA</td>
<td>305 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Ether (CAS 115-10-6)</td>
<td>TWA</td>
<td>1880 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves.

Other
Wear suitable protective clothing.

Respiratory protection
If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. 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
- Physical state: Gas Aerosol.
- Form: Aerosol. Compressed gas.
- Color: Clear.
- Odor: Urethane.
- Odor threshold: Not available.
- pH: Not available.
- Melting point/freezing point: -191.53 °F (-124.19 °C) estimated
- Initial boiling point and boiling range: 128.22 °F (53.46 °C) estimated
- Flash point: < 0 °F (< -17.8 °C) estimated
- Evaporation rate: Not available.
- Flammability (solid, gas): Flammable gas.

Upper/lower flammability or explosive limits
- Flammability limit - lower (%): 2.3 % estimated
- Flammability limit - upper (%): 16.2 % estimated
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure: 12 mm Hg
Vapor pressure temp.: 68 °F (20 °C)
Vapor density: Not available.
Relative density: Not available.
Solubility(ies): Not available.
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature: 709.22 °F (376.23 °C) estimated
Decomposition temperature: Not available.
Viscosity: Not available.

Other information
- Density: 7.70 lbs/gal
- Flammability class: Flammable IB estimated
- Heat of combustion (NFPA 30B): 23.58 kJ/g estimated

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability: Material is stable under normal conditions.
Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products: No hazardous decomposition products are known.
11. Toxicological information

Information on likely routes of exposure

Inhalation
- Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.

Skin contact
- No adverse effects due to skin contact are expected.

Eye contact
- Causes serious eye irritation.

Ingestion
- Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity
- Narcotic effects. May cause respiratory irritation.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanol (CAS 78-92-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rabbit</td>
<td>4.9 g/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>6.48 g/kg</td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>Mouse</td>
<td>494 ppm, 15 Minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>386 ppm, 30 Minutes</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>308.5 mg/l, 4 Hours</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

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

Serious eye damage/eye irritation
- Causes serious eye irritation.

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, ACGIH, NTP, or OSHA.

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
- May cause respiratory irritation. May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure
- Not classified.

Aspiration hazard
- Not likely, due to the form of the product.

Chronic effects
- Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
- The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
### Product Test Results

**Species**

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renulite Headlight Sealant Aerosol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50</td>
<td>Daphnia</td>
<td>4374.1177 mg/l, 48 hours estimated</td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Fish</td>
<td>7952.9414 mg/l, 96 hours estimated</td>
</tr>
</tbody>
</table>

**Components**

| 2-butanol (CAS 78-92-2)         |         |                                   |
| Aquatic                         |         |                                   |
| Crustacea EC50                  | Water flea (Daphnia magna) | 1859 - 7143 mg/l, 48 hours        |
| Fish LC50                       | Fathead minnow (Pimephales promelas) | 3380 - 3990 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

**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)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanol</td>
<td>0.61</td>
</tr>
<tr>
<td>Dimethyl Ether</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**Mobility in soil**

No data 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**

Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

**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. Do not re-use empty containers.

### 14. Transport information

**DOT**

- **UN number**: UN1950
- **UN proper shipping name**: Aerosols, flammable
- **Transport hazard class(es)**
  - **Class**: 2.1
  - **Subsidiary risk**: -
  - **Label(s)**: 2.2, 6.1
- **Packing group**: Not applicable.
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Packaging exceptions**: 306
- **Packaging non bulk**: None
- **Packaging bulk**: None

**IATA**

- **UN number**: UN1950
- **UN proper shipping name**: Aerosols, flammable
- **Transport hazard class(es)**
  - **Class**: 2.1
  - **Subsidiary risk**: -
- **Packing group**: Not applicable.
- **Environmental hazards**: No.
- **ERG Code**: 10L
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
Other information

- Passenger and cargo aircraft: Allowed.
- Cargo aircraft only: Allowed.

IMDG

- UN number: UN1950
- UN proper shipping name: AEROSOLS, FLAMMABLE
- Transport hazard class(es):
  - Class: 2.1
  - Subsidiary risk: Not applicable.
- Packing group: Not applicable.
- Environmental hazards: Not available.
- Marine pollutant: No.
- EmS: Not available.

Special precautions for user:

- Read safety instructions, SDS and emergency procedures before handling.
- Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

DOT

IATA; IMDG

15. Regulatory information

US federal regulations

- This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- All components are on the U.S. EPA TSCA Inventory List.

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
  - Not regulated.
- CERCLA Hazardous Substance List (40 CFR 302.4)
  - Not listed.
- SARA 304 Emergency release notification
  - Not regulated.
  - Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - Yes
- Pressure Hazard - Yes
- Reactivity Hazard - No
SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous chemical
No
SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanol</td>
<td>78-92-2</td>
<td>40 - &lt; 50</td>
</tr>
</tbody>
</table>

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)
Dimethyl Ether (CAS 115-10-6)
Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.
US. Massachusetts RTK - Substance List
2-butanol (CAS 78-92-2)
Dimethyl Ether (CAS 115-10-6)
US. New Jersey Worker and Community Right-to-Know Act
2-butanol (CAS 78-92-2)
Dimethyl Ether (CAS 115-10-6)
US. Pennsylvania Worker and Community Right-to-Know Law
2-butanol (CAS 78-92-2)
Dimethyl Ether (CAS 115-10-6)
US. Rhode Island RTK
2-butanol (CAS 78-92-2)
Dimethyl Ether (CAS 115-10-6)
US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision
Issue date 08-14-2014
Revision date 04-01-2015
Version # 05
Disclaimers

Presta Products cannot anticipate all conditions under which this information and its product, or
the products of other manufacturers in combination with its product, may be used. It is the user's
responsibility to ensure safe conditions for handling, storage and disposal of the product, and to
assume liability for loss, injury, damage or expense due to improper use. The information provided
in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date
of its publication. The information given is designed only as a guidance for safe handling, use,
processing, storage, transportation, disposal and release and is not to be considered a warranty or
quality specification. The information relates only to the specific material designated and may not
be valid for such material used in combination with any other materials or in any process, unless
specified in the text.

Revision Information

This document has undergone significant changes and should be reviewed in its entirety.