1 Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier
  - Trade name: Bar's Leaks® Liquid Aluminum
  - Article number: 1186

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  - No further relevant information available.

- Application of the substance / the preparation
  - Aluminum Radiator & Cooling System Stop Leak.

- 1.3 Details of the supplier of the Safety Data Sheet
  - Manufacturer/Supplier:
    - Bar's Products
    - P.O. Box 187
    - Holly, MI 48442 USA
    - Phone: (810) 603-1321

- 1.4 Emergency telephone number:
  - ChemTel Inc.
    - (800)255-3924, +1 (813)248-0585

2 Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008
    - The product is not classified according to GHS regulations.
    - The product is not classified according to the CLP regulation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

- Information concerning particular hazards for human and environment:
  - The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:
  - The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
  - The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- 2.2 Label elements
  - Labelling according to Regulation (EC) No 1272/2008 N/A
  - Hazard pictograms N/A
  - Signal word N/A

  - Hazard-determining components of labelling: None.
  - Hazard statements N/A
  - Additional information: N/A
  - Hazard description:
    - WHMIS-symbols: Not hazardous under WHMIS.

(Contd. on page 2)
Trade name: Bar's Leaks® Liquid Aluminum

· NFPA ratings (scale 0 - 4)
  Health = 0
  Fire = 0
  Reactivity = 0

· HMIS-ratings (scale 0 - 4)
  Health = 0
  Fire = 0
  Reactivity = 0

· HMIS Long Term Health Hazard Substances
  None of the ingredients is listed.

· 2.3 Other hazards
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.

3 Composition/information on ingredients

· 3.2 Mixtures
  · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:
  | CAS: 9004-34-6 | Cellulose | <10% |
  | EINECS: 232-674-9 |
  | CAS: 13463-67-7 | titanium dioxide | <10% |
  | EINECS: 236-675-5 |

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· 4.1 Description of first aid measures
  · General information: No special measures required.
  · After inhalation: Supply fresh air; consult doctor in case of complaints.
  · After skin contact:
    Clean with water and soap.
    If skin irritation continues, consult a doctor.
  · After eye contact:
    Remove contact lenses if worn.
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  · After swallowing:
    Rinse out mouth and then drink plenty of water.
    Do not induce vomiting; call for medical help immediately.

· 4.2 Most important symptoms and effects, both acute and delayed Gastric or intestinal disorders
· Hazards No further relevant information available.

(Contd. on page 3)
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Trade name: Bar's Leaks® Liquid Aluminum

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Firefighting measures
- 5.1 Extinguishing media
  - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
  - For safety reasons unsuitable extinguishing agents: None.
- 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.
- 5.3 Advice for firefighters
  - Protective equipment: No special measures required.
  - Additional information No further relevant information available.

6 Accidental release measures
- 6.1 Personal precautions, protective equipment and emergency procedures
  Not required.
- 6.2 Environmental precautions: Dilute with plenty of water.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage
- 7.1 Precautions for safe handling
  No special measures required.
- Information about fire - and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      Avoid storage near extreme heat, ignition sources or open flame.
    - Information about storage in one common storage facility: Store away from foodstuffs.
  - Further information about storage conditions: Protect from frost.
  - 7.3 Specific end use(s)
    No further relevant information available.

8 Exposure controls/personal protection
- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Contd. of page 2)
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Printing date 2/14/2013
Revision: 2/13/2013

Trade name: Bar's Leaks® Liquid Aluminum

- DNELs No further relevant information available.
- PNECs No further relevant information available.
- Additional information: The lists valid during the making were used as basis.
- 8.2 Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures: No further relevant information available.
  - Respiratory protection: Not required.
  - Protection of hands: Not required.
  - Eye protection:
    - Safety glasses
- Body protection: Not required.
- Limitation and supervision of exposure into the environment No special requirements.
- Risk management measures No special requirements.

9 Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Viscous
  - Colour: Grey
  - Odour: Odourless
  - Odour threshold: Not determined.
- pH-value at 20 °C: < 9
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: Not determined.
- Decomposition temperature: Not determined.
- Self-igniting: Product is not self-igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapour pressure at 20 °C: 23 hPa
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Printing date 2/14/2013
Revision: 2/13/2013

Trade name: Bar's Leaks® Liquid Aluminum

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density at 20 °C</td>
<td>1.01 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Fully miscible.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solids content</td>
<td>Not determined.</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
  - No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions Reacts with strong acids and oxidizing agents.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
  - on the skin: Slight irritant effect on skin and mucous membranes.
  - on the eye: Slight irritant effect on eyes.
- Sensitization: Sensitizing effect by skin contact is possible by prolonged exposure.
- Additional toxicological information:
  The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
  When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
12 Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity**: The product contains materials that are harmful to the environment.
  - **12.2 Persistence and degradability**: The product is partly biodegradable. Significant residuals remain.
  - **12.3 Bioaccumulative potential**: May be accumulated in organism.
  - **12.4 Mobility in soil**: No further relevant information available.
  - **Additional ecological information:**
    - **General notes:**
      - This statement was deduced from the properties of the single components.
      - Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.
      - Water Hazard Class (Self-classification) in the concentrate.
      - Generally not hazardous for water.
    - **12.5 Results of PBT and vPvB assessment**
      - **PBT**: Not applicable.
      - **vPvB**: Not applicable.
  - **12.6 Other adverse effects**: No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**
    - On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.
  - **Uncleaned packaging**:
    - **Recommendation**: Disposal must be made according to official regulations.
    - **Recommended cleansing agents**: Water, if necessary together with cleansing agents.

14 Transport information

- **14.1 UN-Number**
  - DOT, ADR, ADN, IMDG, IATA: N/A
- **14.2 UN proper shipping name**
  - DOT, ADR, ADN, IMDG, IATA: N/A
- **14.3 Transport hazard class(es)**
  - DOT, ADR, ADN, IMDG, IATA: N/A

(Contd. of page 5)

(Contd. on page 7)
# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

**Trade name:** Bar's Leaks® Liquid Aluminum

<table>
<thead>
<tr>
<th>14.4 Packing group</th>
<th>DOT, ADR, IMDG, IATA</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.5 Environmental hazards:</td>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>UN &quot;Model Regulation&quot;:</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

## 15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - United States (USA)
  - SARA
  - Section 355 (extremely hazardous substances):
    - None of the ingredients is listed.
  - Section 313 (Specific toxic chemical listings):
    - None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act):
    - All ingredients are listed.
  - Proposition 65 (California):
    - Chemicals known to cause cancer:
      - Reference to Titanium Dioxide is based on unbound respirable particles and is not generally applicable to product as supplied.
      - 13463-67-7 | titanium dioxide
    - Chemicals known to cause reproductive toxicity for females:
      - None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for males:
      - None of the ingredients is listed.
    - Chemicals known to cause developmental toxicity:
      - None of the ingredients is listed.
  - Carcinogenic Categories
    - EPA (Environmental Protection Agency)
      - None of the ingredients is listed.
    - IARC (International Agency for Research on Cancer)
      - 13463-67-7 | titanium dioxide | 2B |
    - TLV (Threshold Limit Value established by ACGIH)
      - 13463-67-7 | titanium dioxide | A4 |
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Printing date 2/14/2013
Revision: 2/13/2013

Trade name: Bar's Leaks® Liquid Aluminum

(Contd. of page 7)

- NIOSH-Ca (National Institute for Occupational Safety and Health)
  13463-67-7 titanium dioxide

- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

- Canada

  - Canadian Domestic Substances List (DSL)
    All ingredients are listed.

  - Canadian Ingredient Disclosure list (limit 0.1%)
    None of the ingredients is listed.

  - Canadian Ingredient Disclosure list (limit 1%)
    None of the ingredients is listed.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  ACGIH: American Conference of Governmental Industrial Hygienists
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  WHMIS: Workplace Hazardous Materials Information System (Canada)
  DNEL: Derived No-Effect Level (REACH)
  PNEC: Predicted No-Effect Concentration (REACH)

- Sources
  SDS Prepared by:
  ChemTel Inc.
  1305 North Florida Avenue
  Tampa, Florida USA 33602-2902
  Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
  Website: www.chemtelinc.com