Section 1: Product & Company Identification

Product Name: Battery Cleaner with Indicator (aerosol)
Product Number (s): 05023, 05723, 75097
Product Use: Battery Cleaner

Manufacturer / Supplier Contact Information:
In United States: CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com
1-215-674-4300 (General)
(800) 521-3168 (Technical)
(800) 272-4620 (Customer Service)

In Canada: CRC Canada Co.
2-1246 Lorimar Drive
Mississauga, Ontario L5S 1R2
www.crc-canada.ca
1-905-670-2291

In Mexico: CRC Industries Mexico
Av. Benito Juárez 4055 G
Colonía Orquídea
San Luis Potosí, SLP CP 78394
www.crc-mexico.com
52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

CAUTION: Contents Under Pressure.
Appearance & Odor: Yellow foam, no odor

Potential Health Effects:

ACUTE EFFECTS:
   EYE: May cause mild irritation including redness and burning.
   SKIN: Prolonged or repeated contact can cause irritation and defatting of the skin.

INHALATION: Inhalation of a small amount is not expected to cause health effects. Prolonged exposure may cause dizziness or throat irritation.

INGESTION: Ingestion of a small amount is not expected to cause health effects. Ingestion of a larger amount may cause irritation to gastrointestinal tract.

CHRONIC EFFECTS: None known

TARGET ORGANS: None known

Medical Conditions Aggravated by Exposure: Pre-existing skin or eye disorders

See Section 11 for toxicology and carcinogenicity information on product ingredients.
**Section 3: Composition/Information on Ingredients**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>% by Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>80 - 90</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>2.9</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>144-55-8</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Detergent</td>
<td>127087-87-0 / 68412-54-4</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Liquefied Petroleum Gas</td>
<td>68476-86-8</td>
<td>3 - 8</td>
</tr>
</tbody>
</table>

**Section 4: First Aid Measures**

**Eye Contact:** Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

**Skin Contact:** Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

**Inhalation:** Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

**Ingestion:** Do not induce vomiting. Call physician.

*Note to Physicians:* This product contains 2-Butoxyethanol which, if ingested in significant quantities, may result in red blood cell hemolysis.

**Section 5: Fire-Fighting Measures**

**Flammable Properties:** This product is non-flammable in accordance with aerosol flammability definitions. (See 16 CFR 1500.3(c)(6)).

- **Flash Point:** None
- **Autoignition Temperature:** None
- **Upper Explosive Limit:** ND
- **Lower Explosive Limit:** ND

**Fire and Explosion Data:**

**Suitable Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire.

**Products of Combustion:** None

**Explosion Hazards:** Aerosol containers, when exposed to heat from fire, may build pressure and explode.

**Protection of Fire-Fighters:** Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

**Section 6: Accidental Release Measures**

**Personal Precautions:** Use personal protection recommended in Section 8.

**Environmental Precautions:** Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.
Section 7: Handling and Storage

Handling Procedures: Use with adequate ventilation. Avoid contact with skin and eyes. Wash hands after use. Do not expose aerosol containers to heat or flame. Do not incinerate container. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing.

Aerosol Storage Level: I

Section 8: Exposure Controls/ Personal Protection

Exposure Guidelines:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Water</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>50 (s)</td>
<td>NE</td>
<td>20</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Detergent</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Liquefied Petroleum Gas</td>
<td>1000</td>
<td>NE</td>
<td>1000</td>
</tr>
</tbody>
</table>

N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties
Product Name: Battery Cleaner with Indicator (aerosol)
Product Number (s): 05023, 05723, 75097

Physical State: liquid
Color: yellow foamy
Odor: no odor
Odor Threshold: ND
Specific Gravity: 1.04
Initial Boiling Point: ~ 212°F / 100°C
Freezing Point: ~ 32°F / 0°C
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: slow
Solubility: soluble in water
Coefficient of water/oil distribution: ND
pH: 8.5
Volatile Organic Compounds: wt %: 7.9, g/L: 82.16, lbs/gal: 0.68

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Keep away from heat, direct sunlight, open flames or sparks. Dropping of containers may cause bursting.

Incompatible Materials: Strong oxidizers

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50 (rat)</th>
<th>Dermal LD50 (rabbit)</th>
<th>Inhalation LC50 (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>&gt; 90 mL/kg</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>470 mg/kg</td>
<td>220 mg/kg</td>
<td>450 ppm/4H</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>4220 mg/kg</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Detergent</td>
<td>3000 mg/kg</td>
<td>4400 mg/kg</td>
<td>No data</td>
</tr>
<tr>
<td>Liquefied Petroleum Gas</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

Chronic Toxicity:

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA Carcinogen</th>
<th>IARC Carcinogen</th>
<th>NTP Carcinogen</th>
<th>Irritant</th>
<th>Sensitizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>E (severe) / S (mild) / R (mild)</td>
<td>No</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>Detergent</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>E (severe) / S (mild)</td>
<td>No</td>
</tr>
<tr>
<td>Liquefied Petroleum Gas</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

E – Eye  S – Skin  R - Respiratory
Product Name: Battery Cleaner with Indicator (aerosol)
Product Number(s): 05023, 05723, 75097

Reproductive Toxicity: No information available
Teratogenicity: No information available
Mutagenicity: No information available
Synergistic Effects: No information available

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: 2-Butoxyethanol 96 Hr LC50, Bluegill sunfish: 1490 mg/L
24 Hr LC50, daphnia: 1720 mg/L
Persistence / Degradability: No information available
Bioaccumulation / Accumulation: No information available
Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: The dispensed liquid product is not a RCRA hazardous waste. (See 40 CFR Part 261.20 – 261.33)
Empty aerosol containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): UN1950, Aerosols, non-flammable, 2.2, Limited Quantity**
ICAO/IATA (air): UN1950, Aerosols, non-flammable, 2.2, Limited Quantity
IMO/IMDG (water): UN1950, Aerosols, 2.2, Limited Quantity

Special Provisions: **This product can be classified and labeled as ‘Consumer Commodity, ORM-D’ for domestic ground shipping until January 1, 2014.
If shipping as limited quantity by ground, note that shipping papers are not required.

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):
All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):
Reportable Quantities (RQ’s) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.
Superfund Amendments Reauthorization Act (SARA) Title III:
Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:
- Fire Hazard: No
- Reactive Hazard: No
- Release of Pressure: Yes
- Acute Health Hazard: Yes
- Chronic Health Hazard: No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
- 2-Butoxyethanol (glycol ethers): 2.9%

Clean Air Act:
Section 112 Hazardous Air Pollutants (HAPs): None

Occupational Safety and Health Administration (OSHA):
This product is regulated under the Hazard Communication Standard.

U.S. State Regulations:
California Safe Drinking Water and Toxic Enforcement Act (Prop 65):
This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: None

Consumer Products VOC Regulations: This product is not regulated.

State Right to Know:
New Jersey: 111-76-2, 68476-86-8
Pennsylvania: 111-76-2, 68476-86-8
Massachusetts: 111-76-2, 68476-86-8
Rhode Island: 111-76-2, 68476-86-8

Canadian Regulations:
Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

WHMIS Hazard Class: A, D2B

European Union Regulations:

Additional Regulatory Information: None
Section 16: Other Information

<table>
<thead>
<tr>
<th>HMIS® (II)</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>1</td>
</tr>
<tr>
<td>Flammability:</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>0</td>
</tr>
<tr>
<td>PPE:</td>
<td>B</td>
</tr>
</tbody>
</table>

Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick
CRC #: 530C
Revision Date: 01/16/2013

Changes since last revision: Part number added
Section 13: Disposal Considerations
Section 14: Transport Information

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  NA: Not Applicable
CAS: Chemical Abstract Service  ND: Not Determined
DOT: Department of Transportation  NFPA: National Fire Protection Association
DSL: Domestic Substance List  NTP: National Toxicology Program
g/L: grams per Liter  OSHA: Occupational Safety and Health Administration
HMIS: Hazardous Materials Identification System  PMCC: Pensky-Martens Closed Cup
IARC: International Agency for Research on Cancer  PPE: Personal Protection Equipment
IATA: International Air Transport Association  ppm: Parts per Million
ICAO: International Civil Aviation Organization  RoHS: Restriction of Hazardous Substances
IMDG: International Maritime Dangerous Goods  STEL: Short Term Exposure Limit
IMO: International Maritime Organization  TCC: Tag Closed Cup
lbs./gal: pounds per gallon  TWA: Time Weighted Average
LC: Lethal Concentration  WHMIS: Workplace Hazardous Materials Information System
LD: Lethal Dose

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