

## MATERIAL SAFETY DATA SHEET - LEAD ACID BATTERY

### Section I - Product Identification

**Product identifier:** Lead Acid Battery

**Product use:** Lead Acid Storage Battery

**Chemical family:** Lead Acid Storage Battery

**Supplier's name and address:**

Surette Battery Co. Ltd.  
P.O. Box 2020, 1 Station Road  
Springhill, N.S.  
B0M 1X0 (902) 597-3767

**Manufacturer's name and address:**

Refer to Supplier

**Emergency Telephone #:** CANUTEC (613) 996-6666

**WHMIS CLASS:** D1B, E

**HMIS rating:** Health 3 Fire 0 Reactivity 1

### Section II - Hazardous Ingredients

<u>Ingredients</u>	<u>LC<sub>50</sub>, ppm</u>	<u>LD<sub>50</sub>, mg/kg</u>	<u>wt.%</u>	<u>(Rat,ihl.)</u>	<u>(Rat,oral)</u>
Lead					
Lead dioxide	1309-60-0		31	n/av	n/av
Sulfuric acid	7664-93-9	34	510 mg/m <sup>3</sup>	/2Hr	2140

### Section III - Physical Data

**Physical state, odour and appearance:** A transparent to opaque case and sealed cover fitted with side or top terminals and vent caps, odourless, clear, colourless.

**Odour threshold:** n/ap

**Specific gravity (at °C):** n/ap

**Coefficient of water/oil distribution:** n/ap

**Vapour pressure:** n/ap

**Boiling point:** n/ap

**Melting/freezing point:** n/ap

**pH:** n/ap

**Vapour density (Air=1.0):** n/ap

**Evaporation rate (n-BuAc=1.0):** n/ap

**Volatiles, %:** n/ap

**Solubility in water (w/w):** n/ap

## Section IV - Fire and Explosion Data

**Conditions of flammability:** n/ap

**Means of extinction:** n/ap

**Sensitivity to mechanical impact/static discharge:** n/ap

**Flash point (Method):** n/ap

**Lower/upper flammable limits (% by volume):** n/ap

**Auto-ignition temperature:** n/ap

**Hazardous combustion products:** n/ap

**Unusual fire and explosion hazards:** For batter acid - Evolution of explosive Hydrogen gas on contact with most metals.

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## Section V - Reactivity Data

**Stability:** Stable. n/ap

**Incompatible materials:** n/ap

**Conditions of reactivity:** n/ap

**Hazardous decomposition products:** For battery acid - If heated above 340°C, sulfuric acid will decompose to sulfur trioxide and water.

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## Section VI - Toxicological Properties

\*\*\*Routes of exposure and acute/chronic effects\*\*\*

**Exposure limits:** ACGIH-TLV not applicable for this article.

**Inhalation:** n/ap

**Skin contact:** n/ap

**Eye contact:** n/ap

**Ingestion:** n/ap

**Chronic effects:** None known.

*Carcinogenicity:* Lead and lead dioxide are listed as carcinogens, however there is not possibility for exposure under user in normal conditions.

*Teratogenicity, mutagenicity, other reproductive effects:* n/av

**Sensitization to material:** Product is not known to cause allergies.

**Synergistic materials:** None known.

## Section VII - First Aid

**Applies to the battery fluid only:**

**Inhalation:** Remove victim to fresh air. If breathing difficulty does not improve rapidly, get patient to a doctor.

**Skin:** Wash skin with mild soap and water. Rinse thoroughly. See a doctor if irritation persists.

**Eyes:** Flush with plenty of water for at least 20 minutes. Get medical attention immediately.

**Ingestion:** Get immediate medical attention. Do not induce vomiting.

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## Section VIII - Preventative Measures

**Applies to the battery fluid only:**

**Spill, leak or release:** Use full protective clothing, including boots and protective equipment. Contain spill in order to prevent contamination of sewage system or waterway. Pump into mark containers for reclamation or disposal. If possible, neutralize on a dry basis with suitable alkali such as lime, soda ash, or sodium bicarbonate, then flush with water in accordance with applicable regulations.

**Waste disposal:** Consult federal, provincial and local regulations for allowed means of disposal.

### \*\*\*PROTECTIVE EQUIPMENT\*\*\*

**Respiratory protection:** Cartridge type mask or self-contained breathing apparatus approved by NIOSH, depending on exposure.

**Engineering controls:** Local exhaust is required. Mechanical ventilation (general) - not compulsory.

**Protective gloves:** PVC or Neoprene.

**Eye protection:** Chemical splash goggles or face shield.

**Other protective equipment:** Depending on exposure and on workplace standards. Safety showers and eye wash station should be installed in storage and handling areas.

### \*\*\*STORAGE AND HANDLING\*\*\*

**Handling procedures and equipment:** Avoid contact with skin, eyes and clothing. Protect containers from physical damage. Wear protective equipment during handling. When diluting, slowly add acid to water (never water to acid) while stirring to avoid spattering or boiling. Wash thoroughly after handling. Emptied containers retain vapour and product residue.

**Storage requirements:** Store in a cool, dry area. Store away from sources of ignition. Keep container closed and protect from contact with water to avoid possible violent reaction.

**Special shipping instructions:** Special shipping instructions: TDG - Battery fluid, acid, Class 8(9.2), UN2794, P.G. III

## Section IX - Preparation Information

**Prepared by:** Surrette Battery Co. Ltd.

**Telephone #:** (902) 597-3767

**Preparation date:** 21-Jan-2010

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### **Additional notes or references:**

Abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists

IARC: International Agency for Research on Cancer

n/ap not applicable

n/av: not available

NIOSH: National Institute for Occupational Safety and Health

TCC: Tagliabue Closed Cup

WHMIS: Workplace Hazardous Materials Information System

TDG: Transportation of Dangerous Goods Act and Regulations

TLV: Threshold Limit Values

TWA: Time Weighted Average

References:

1. Van Nostrand Reinhold, Dangerous Properties of Industrial Materials, Seventh Edition, N. Irving Sax.
2. Canadian Centre for Occupational Health and Safety. RTECS (Registry of Toxic Effects) and CHEMINFO databases.
3. ACGIH, Threshold Limit Values and Biological Exposure Indices for 1997
4. International Agency for Research on Cancer Monographs, Supplement 7, 1988.