

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY (As Used on Label and List)
CAREFREE Rechargeable Battery

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name Earle-Picher Industries, Inc.	Emergency Telephone Number - 417-776-2256
Address (Number, Street, City, State, and ZIP Code) P. O. Box 130	Telephone Number for Information 417-776-2256
Bethel Road	Date Prepared 7 February 1990
Seneca, MO 64865	Signature of Preparer (optional)

Section II -- Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Lead	CAS #7439-92-1 0.050 mg/m ³	0.15 mg/m ³		50%
Lead Oxides	CAS #7439-92-1 0.050 mg/m ³	0.15 mg/m ³		25%
38% Sulfuric Acid, 1.28 s.g.	CAS #7664-93-9 1.0 mg/m ³	1.0 mg/m ³		18%

Section III -- Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H₂O = 1)	N/A
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		
Appearance and Odor	N/A		

Section IV -- Fire and Explosion Hazard Data

Flash Point (Method Used) Direct Flame to Battery Case	Flammable Limits UL-94HB	LEL N/A	UEL N/A
Extinguishing Media Water, Foam, Dry			
Special Fire Fighting Procedures N/A			

Unusual Fire and Explosion Hazards

Keep lighted cigarettes, sparks and flames away. Explosion can result from improper charging and ignition of charging gases. Explosion can result if charged in non-vented enclosure.

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	XX	

Incompatibility (Materials to Avoid)

Solvents may dissolve battery case material.

Hazardous Decomposition or Byproducts

Severe overcharge and overheating may cause sulfur oxide fumes.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	XX	

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
Eyes	Yes	Yes	Yes

Health Hazards (Acute and Chronic)

Severe burns and eye damage from sulfuric acid electrolyte.

Illness from sulfur oxide fumes.

Contains lead which is known to cause birth defects or other reproductive harm.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
NA	No	No	No

Signs and Symptoms of Exposure

Irritation and acid burns

Pungent odor and respiratory irritation

Medical Conditions

Generally Aggravated by Exposure

N/A

Emergency and First Aid Procedures For sulfur oxide fumes, disconnect batteries, evacuate and ventilate

External, flush areas contaminated by sulfuric acid electrolyte with water.

Internal, drink large quantities of water or milk, followed by milk of magnesia, beaten eggs, or vegetable oil.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Avoid contact with sulfuric acid electrolyte from battery. Flush with water.

Waste Disposal Method

Neutralize with solution of baking soda in water. Do not incinerate.

Dispose with automotive battery scrap in accordance with local and federal regulations.

Precautions to Be Taken in Handling and Storage

Batteries with released electrolyte shall be sealed in polyethylene bags.

Keep batteries away from children.

Other Precautions

Do not crack battery cases. Do not overcharge. Do not short circuit battery terminals.

Keep lighted cigarettes, sparks, and flames away from charging batteries.

Section VIII — Control Measures

Respiratory Protection (Specify Type)

Ventilation	Local Exhaust	Special
	Mechanical (General)	Other Natural convection

Protective Gloves

Use rubber gloves if case is cracked

Eye Protection

Recommended

Other Protective Clothing or Equipment

N/A

Work/Hygiene Practices

N/A

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Carefree[®]

RECHARGEABLE BATTERY
MADE IN U.S.A.

To obtain maximum operating efficiency, life, and to maintain the warranty of the CAREFREE battery, the following should be observed:

OPERATING INSTRUCTIONS

All CAREFREE batteries are carefully assembled and with proper charging will provide excellent service. When placing the battery into service it must be inspected to make sure that the battery has not been damaged by rough handling. If the unit has been damaged, there is a possibility of a loss of a small amount of sulfuric acid electrolyte and possible corrosion of adjacent components. Any sulfuric acid can cause severe burns to the skin and eyes. If contact is made with a damaged battery, immediately wash the contact area with water for at least 5 minutes. If battery is damaged in shipment, file claim with freight carrier.

Receiving the CAREFREE Battery — CAREFREE batteries are shipped in a fully charged condition. Before placing in service after storage, batteries should be charged for 18 to 20 hours.

Charging the CAREFREE Battery — A constant potential-current limited charger is required to boost charge or recharge the maintenance free battery. The charger should be set at the equivalent of 2.50 to 2.55 volts per cell with current limited to ten percent of rated capacity. Generally 18-24 hours is adequate to return battery to full charge. Should a decay in performance be observed, improvement may result by periodically extending the charge time to 48 hours. For stand-by applications the CAREFREE battery is to be charged at a constant potential of 2.28-2.32 volts per cell and will, without maintenance, sustain continuous float charging for periods measured in years. Charging in the inverted position is not recommended.

Storing the CAREFREE Battery — Lead-acid batteries must not be allowed to remain in a discharged state and should be recharged as soon as possible after each use. Batteries stored at 65 °F or less shall be charged every six months. Units stored at room temperature or above shall be charged every four months. Batteries should not be stored above 100 °F.

Operational Temperatures — Lead-acid batteries will deliver energy at temperatures as low as -70 °F, but cannot be efficiently recharged and discharged over a prolonged period below an ambient temperature of 32 °F.

CAUTION

1. BATTERY CONTAINS TOXIC MATERIAL (LEAD ELECTRODES).
2. DO NOT CHARGE IN GAS TIGHT ENCLOSURES.
3. THE BATTERY COMPARTMENT MUST HAVE ADEQUATE VENTILATION AWAY FROM SPARKS, FLAMES, OR SMOKING. UNDER OVERCHARGE CONDITIONS, HYDROGEN AND OXYGEN GASES MAY BE LIBERATED AND, IF IGNITED, AN EXPLOSION COULD RESULT.
4. LEAD-ACID BATTERIES CONTAIN SULFURIC ACID, WHICH CAN CAUSE MATERIAL DAMAGE AND PERSONAL INJURY. IF CONTACT IS MADE WITH THE ACID, IMMEDIATELY FLUSH AREA WITH WATER. SHOULD THE EYES BE AFFECTED, FLUSH LIBERALLY WITH WATER AND SEEK MEDICAL ATTENTION AS SOON AS POSSIBLE. A GOOD NEUTRALIZING SOLUTION FOR SULFURIC ACID IS HOUSEHOLD BAKING SODA IN WATER.
5. DO NOT SHORT-CIRCUIT BATTERY TERMINALS, AS THIS CAN CAUSE AN EXPLOSION OR FIRE.
6. KEEP BATTERIES AND CHARGERS AWAY FROM CHILDREN.
7. DO NOT PUNCTURE, DISASSEMBLE, MUTILATE OR INCINERATE.
8. DISPOSE OF BATTERY WITH AUTOMOTIVE BATTERY SCRAP AT AN E.P.A. REGISTERED RECLAIMER.
9. IT IS UNLAWFUL TO DISPOSE OF BATTERY IN LANDFILL.
10. IF NO E.P.A. APPROVED DISPOSAL SYSTEM IS AVAILABLE IN YOUR STATE, YOU MAY SHIP THE BATTERY FREIGHT PREPAID TO:

EAGLE-PICHER INDUSTRIES, INC.

NORTH BETHEL ROAD

SENECA, MO 64865

ATTN: BATTERY DISPOSAL DEPARTMENT

A HANDLING FEE OF \$2.00 (U.S. DOLLARS) PER BATTERY MUST BE INCLUDED WITH SHIPMENT.

A BATTERY RETURN AUTHORIZATION NUMBER (B.R.A.) MUST BE OBTAINED PRIOR TO SHIPPING. THIS B.R.A. NUMBER MAY BE OBTAINED BY CALLING AREA CODE 417-776-2256 AND ASKING FOR BATTERY RETURN DEPARTMENT.

IMPORTANT

REMEMBER, ALL LEAD-ACID BATTERIES ARE RECYCLABLE. PROPER DISPOSAL OF BATTERIES IS VERY IMPORTANT TO PROTECTING THE ENVIRONMENT. PLEASE DO YOUR PART BY DISPOSING OF LEAD-ACID BATTERIES WITH AN E.P.A. CERTIFIED BATTERY RECYCLER. THANK YOU, EAGLE-PICHER INDUSTRIES, INC.

Limited Warranty

Every CAREFREE battery has been carefully inspected and tested before shipment. Accordingly, we warrant each CAREFREE battery which is sold, against defects in workmanship and material under normal use and recommended charging methods for a period of 1 year after date of manufacture. Our obligation under this warranty shall be limited to the repair or replacement, FOB factory, of any CAREFREE battery which is returned as a complete unit to the factory within the 1 year warranty period, transportation charges prepaid, and which proves to our satisfaction, upon examination, to be defective. This warranty shall not extend to, and we shall have no responsibility with respect to, products which have been abused, retained or altered, or as to which repair has been made or attempted by others. BATTERIES THAT HAVE BEEN SEVERELY OVERCHARGED OR DISCHARGED (INCLUDING LONG OR EXTENDED STORAGE), ARE NOT COVERED UNDER THIS WARRANTY. THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES WITH RESPECT TO THE PRODUCT COVERED HEREIN AND THERE ARE NO OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, EXCEPT THE WARRANTY EXPRESSLY STATED HEREIN. THE REMEDY SET FORTH HEREIN SHALL BE THE SOLE EXCLUSIVE REMEDY OF ANY PURCHASER WITH RESPECT TO ANY DEFECTIVE PRODUCT. Under no circumstances shall we be liable for any loss, including but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss suffered or incurred with respect to any defective product.

EAGLE P ICHER

Eagle-Picher Industries, Inc.

COMMERCIAL PRODUCTS DEPARTMENT

P.O. BOX 130 • SENECA, MISSOURI 64865 • PHONE 417-776-2258 • FAX 417-776-2257

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