Sonnenschein

-- Material Safety Data Sheet --

Valve Regulated Lead Acid Battery
" Battery Non-Spillable 49 CFR 173.195 (d)"

SECTION I

Manufacturer's Name: East Penn Manufacturing Co. Inc. Lyon Station, PA 19536	**Date:** May 2000. Revised January 2007 Trade name. Gell: Absorbed Electrolyte, sealed valve regulated Non-Spillable Battery
Emergency Telephone #: CHEMTREC: 800-424-9300, in Washington DC or outside continental US call 202-483-7616	**Distributed By: M & G Inc** 2415 SW 3rd Ave; Ft. Lauderdale Fl 33315. Tel USA 954 525 5557

SECTION II

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous Components Specific Chemical Identity (Common Name (s).)	OSHA PEL	ACGIH TLV	Range % Percent by weight	Average
Lead, CAS #7439921	0.05mg/m^3	0.15 mg/m^3	60-75%	67%
Sulfuric Acid, CAS #7664939	1.00 mg/m^3	1.00 mg/m^3	5-15%	10%
Antimony, CAS #74403360	0.50 mg/m^3	0.50 mg/m^3	0-0.1%	<0.1%
Arsenic, CAS #7440382	0.01 mg/m^3	0.01 mg/m^3	0-0.1%	<0.01%
Polypropylene CAS#9003070	n/a	n/a	2-10%	4%
Calcium, CAS#7440702	1.0 mg/m^3	1.0 mg/m^3	0-0.1%	<0.1%
Tin, CAS #7440702	2.0 mg/m^3	2.0 mg/m^3	0-0.1%	<0.1%

SECTION III

PHYSICAL/CHEMICAL CHARACTERISTICS

Electrolyte. (Sulfuric Acid) **Appearance and Odor**: Clear Odorless, colorless liquid. **Boiling Point**: 235-240°F **Evaporation Rate (Butyl Acetate=1)**: less than 1.0 **Melting Point**: N/A	**Solubility in Water**: 100% **Specific Gravity (H_20=1):**1.270 -1.330 **Vapor Density (AIR=1):**Greater than 1. **Vapor Pressure (mm Hg):** 10

Section IV

FIRE AND EXPLOSION HAZARD DATA

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Flash Point (Method Used): non-flammable **Flammable Limit:** *hydrogen gas **Extinguishing Media:** Class ABC extinguisher, CO_2 and/or Halon **LEL:** 4% **UEL:** 74% **Note: CO2 may be used, but not directly on the cell. The thermal shock may cause cracking of the battery case and/or cases.** *** Hydrogen gas may be generated during battery charging.**
Special Fire Fighting Procedures: Cool exterior of battery if exposed to fire to prevent rupture. The acid mist and vapors in a fire situation are corrosive. Wear special respiratory protection (SCBA) and clothing.
Unusual Fire and Explosion Hazards: *When overcharging this battery produces hydrogen gas,which may explode if ignited. Use adequate ventilation, avoid open flames, sparks, or other sources of ignition near battery.

SECTION V
REACTIVITY DATA

Stability: Stable
Condition to Avoid: Prolonged overcharging, sources of ignition.
Cases decompose at 160-410° C (322-770° F)
Incompatibility (Materials to Avoid):
Sulfuric Acid: Contact with combustibles and organic materials may cause fire and explosion
Also reacts violently with strong reducing agents, metals, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas.

Hazardous Decomposition of By-Products:
Sulfuric Acid Excessive overcharging or fire may create Sulfur Trioxide , carbon monoxide, sulfuric acid mist, sulfur dioxide and hydrogen.
Lead Compounds: Contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.
Case Material:
Polypropylene. Combustion can produce carbon dioxide (CO_2) and Carbon Monoxide (CO).Hazardous Decomposition of By-Products:
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Lead Compounds: Contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.
Case Material:
Polypropylene. Combustion can produce carbon dioxide (CO_2) and Carbon Monoxide (CO).

SECTION VI
HEALTH HAZARD DATA (Sulfuric Acid)

NOT APPLICABLE TO NON - SPILLABLE SVR BATTERIES

Route(s) of Entry: Not Applicable under normal use.

Carcinogenicity:
Sulfuric Acid; The International Agency for research on cancer (IARC) has classified "strong inorganic acid mist containing sulfuric acid" as a Category 1 carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid contained within a battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of the product such as overcharging, may result in the generation of sulfuric acid mist.
Lead Compounds. Lead is listed as a 2B carcinogen, likely in animals in extreme doses. Proof of carcinogenicity in humans is lacking at present.
Arsenic: Listed by National Toxicology Program (NTP), IARC, OSHA, and NIOSH as a carcinogen only after prolonged exposure at high levels.

Signs and Symptoms of Exposure: Avoid contact with absorbed electrolyte (sulfuric acid) may cause irritation of eyes, nose and throat. Contact with eyes and skin causes irritation and skin burns. Absorbed electrolyte is corrosive.

Medical Condition Generally Aggravated by Exposure: Pregnant women and children must be protected from lead exposure.

Health Hazards (Acute and Chronic): Do not open battery, avoid contact with internal components. Internal components include lead and absorbed electrolyte. Electrolyte is corrosive and contact may cause skin irritation and chemical burns.

Emergency and First Aid Procedures: (Contact with internal components if battery is opened)

1. Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if necessary.
   Eye wash and emergency shower must be available.
2. If swallowed, give large volumes of water. **DO NOT** induce vomiting, and obtain medical treatment.

SECTION VII

PRECAUTIONS FOR SAFE HANDLING AND USE

NOT APPLICABLE TO NON-SPILLABLE SVR BATTERIES

Steps to be Taken in Case Material is Released or Spilled: Electrolyte material is corrosive. Contains sulfuric acid. Neutralize any spilled materials. refernce 1996 North American Emergency Response Guidebook, # 154.
Waste Disposal Method: Lead-acid batteries are completely recyclable. For information on returning Lead acid batteries for recycling, call (954) 525-5557 or e'mail sales@mgbattery.com. Disposal of lead acid batteries; Only in accordance with local, State or applicable Federal regulations.
Precautions to be Taken in Handling and Storing: Store away from reactive material as defined in Section V, Reactivity Data. Place cardboard between layers of stacked batteries to avoid damage or short circuit.Do not allow metallic materials to simultaneously contact both battery terminals.
Other Precautions: If battery case is broken, avoid direct contact with internal components. Keep away from ignition sources during charging

SECTION VIII

CONTROL MEASURES

Respiratory Protection (Specific Type): N/A **Ventilation:** Must be provided when charging in an enclosed area. **Protective Gloves:** Recommended **Eye Protection:** Recommended **Other Protective Clothing or Equipment:** N/A

Work / Hygienic Practices: Good personal hygiene and work practices are recommended.

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SECTION IX
OTHER REGULATORY INFORMATION

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NFPA Hazard Rating	Sulphuric acid	lead
Health (Blue)	3	3
Flammability (Red)	0	0
Reactivity (Yellow)	2	0

NOTE. Sulfuric Acid is water-reactive if concentrated.

US DOT: The Non-Spillable lead acid battery complies with the provisions listed in 49CFR173.159(d) therefore must not be marked with an identification number such as UN2800, or a hazard label such as corrosive. Also having passed IATA/ICAAO special provision A67, these batteries are not subject to the air dangerous goods regulations.

RCRA: Spent lead-acid batteries are not regulated as hazardous waste when recycled. Spilled sulfuric acid is a characteristic hazardous waste, EPA hazardous waste number D002 (corrosivity).

CERCLA: (Superfund) and EPCRA Emergency Planning And Community Right To Know ACT)
a) Reportable quantity (RQ) for spilled 100% sulfuric acid is 1000lbs.
b) Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA with a threshold Planning Quantity (TPQ) of 1000lbs.
c)

California Prop 65: This product contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

This information is accurate to the best of East Penn Mfg Co's knowledge or obtained from sources believed by East Penn to be accurate.
Before using any product read all warnings and directions on the label.

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Older MSDS Forms - Archival only!

-- Material Safety Data Sheet --

BATTERY SEALED NON-SPILLABLE

Item 60682, DOT 173.159

Also known as Sealed Valve Regulated (SVR) Type Batteries

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SECTION I

Manufacturer's Name: East Penn Manufacturing Co. Inc.	**Date Prepared:** Revised July 2000
Emergency Telephone #:CHEMTREC: 800-424-9300, in Washington DC or outside continental US call 202-483-7616	**Distributed By:** M & G Inc 954 525 5557, 2415 SW 3rd Ave; Ft. Lauderdale Fl 33315

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SECTION II

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

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Hazardous Components Specific Chemical Identity	OSHA PEL	ACGIH TLV	Other Limits Recommended	Percent
Lead, CAS #7439921	0.05 mg/m^3	0.15 mg/m^3	N/A	40-70
Sulfuric Acid, CAS #7664939	1.00 mg/m^3	1.00 mg/m^3	N/A	20-44
Antimony, CAS #74403360	0.50 mg/m^3	0.50 mg/m^3	N/A	0-4

SECTION III

PHYSICAL/CHEMICAL CHARACTERISTICS (Sulfuric Acid)

Older MSDS Form - Archival only!

****NOT APPLICABLE TO NON-SPILLABLE SVR BATTERIES****

Appearance and Odor: N/A **Boiling Point**: N/A **Evaporation Rate (Butyl Acetate=1)**: N/A **Melting Point**: N/A	**Solubility in Water**: N/A **Specific Gravity (H_20=1):** N/A **Vapor Density (AIR=1):** N/A **Vapor Pressure (mm Hg):** N/A

Section IV

FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): non-flammable **Flammable Limit:** *hydrogen gas **Extinguishing Media:** Class ABC extinguisher, CO_2 and/or Halon **LEL:** 4% **UEL:** 74%
Special Fire Fighting Procedures: Cool exterior of battery if exposed to fire to prevent rupture. The acid mist and vapors in a fire situation are corrosive. Wear special respiratory protection (SCBA) and clothing.
Unusual Fire and Explosion Hazards: *When overcharging this battery produces hydrogen gas, which may explode if ignited. Use adequate ventilation, avoid open flames, sparks, or other sources of ignition near battery.

SECTION V

REACTIVITY DATA (Battery Case)

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Stability: Stable **Condition to Avoid:** Cases decompose at 160-410° C (322-770° F)

Incompatibility (Materials to Avoid): Strong oxidizing agents such as hot nitric acid, etc.

Hazardous Decomposition of By-Products: Combustion can produce carbon dioxide (CO_2) and Carbon Monoxide (CO).

Hazardous Polymerization: will not occur. **Conditions to Avoid:** N/A

SECTION VI

HEALTH HAZARD DATA (Sulfuric Acid)

NOT APPLICABLE TO NON-SPILLABLE SVR BATTERIES

Route(s) of Entry: N/A

Carcinogenicity: N/A

Signs and Symptoms of Exposure: N/A

Medical Condition Generally Aggravated by Exposure: N/A

Health Hazards (Acute and Chronic): Do not open battery, avoid contact with internal components. Internal components include lead and gelled electrolyte. Electrolyte is corrosive and contact may cause skin irritation and chemical burns.

Emergency and First Aid Procedures: (Contact with internal components if battery is opened)

1. Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if

necessary.
2. If swallowed, give large volumes of water. **DO NOT** induce vomiting, obtain medical treatment.

SECTION VII

PRECAUTIONS FOR SAFE HANDLING AND USE

NOT APPLICABLE TO NON-SPILLABLE SVR BATTERIES

Steps to be Taken in Case Material is Released or Spilled: N/A
Waste Disposal Method: Lead-acid batteries are completely recyclable. For information on returning Lead acid batteries for recycling, call (954) 525-5557
Precautions to be Taken in Handling and Storing: Store away from reactive material as defined in Section V, Reactivity Data.
Other Precautions: If battery case is broken, avoid direct contact with internal components. Keep away from ignition sources during charging

SECTION VIII

CONTROL MEASURES

Respiratory Protection (Specific Type): N/A

Ventilation: Must be provided when charging in an enclosed area.

Protective Gloves: N/A

Eye Protection: Recommended

Other Protective Clothing or Equipment: N/A

Work / Hygienic Practices: Good personal hygiene and work practices are recommended.