



Safety Data Sheet

1. Product Identification:

- 1) Product Name: Valve Regulated Lead Acid (VRLA) Batteries – Batteries, wet, non-spillable electric storage.
- 2) Distributor/Manufacturer Name: EaglePicher Technologies LLC
Commercial Power Solutions
3001 S Davis Blvd.
Joplin MO 64804
Phone: 800-201-0215
417-625-1116
- 3) Emergency Phone: Chemtrec: 800-424-9300
International: 703.527.3887

2. Hazard Identification:

Signs and Systems of Exposure

1. Acute Hazards:

Do not open battery. Avoid contact with internal components. Internal components include lead and absorbed electrolyte.

Electrolyte: Electrolyte is corrosive and contact may cause skin irritation and chemical burns. Electrolyte causes severe burns of nose and throat. Ingestion can cause severe burns and vomiting.

Lead: Direct skin or eye contact may cause local irritation. Inhalation or ingestion of lead dust or fumes may result in headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and leg, arm and joint pain.

2. Sub Chronic and Chronic Health Effects:

Electrolyte: Repeated contact with electrolyte causes irritation and skin burns. Repeated exposure to mist may cause erosion of teeth, chronic eye irritation and/or chronic inflammation of the nose, throat and lungs.

Lead: Prolonged exposure may cause central nervous damage, gastrointestinal disturbances, anemia, irritability metallic taste, insomnia, wrist drop, kidney dysfunction, and reproductive system disturbances.

Routes of Entry: Inhalation – YES Eye Contact – YES Ingestion – YES

3. Composition and Information on Ingredients:

C.A.S.	Principal Hazardous Component (s) (chemical & common name(s))	Hazardous category	% Weight	ACGIH TLV-mg/m ³
7439-92-1	Lead/Lead Oxide (litharge)/Lead Sulfate	Acute-Chronic	60-70	0.05mg/m ³
7440-70-2	Calcium (lead calcium alloy)	Reactive	<0.15	NA
7440-31-5	Tin	Chronic	<1	2
7440-38-2	Arsenic (inorganic)	Acute-Chronic	<1	0.01
7664-93-9	Sulfuric Acid (Battery Electrolyte)	Reactive-Oxidizer Acute-Chronic	10-15	1.0
NA	Inert ingredients	NA	<6	NA

4. First-aid measures:

Emergency and First Aid Procedures	Contact with internal components if battery is opened/broken.
1. Inhalation	Remove to fresh air and provide medical oxygen/CPR if needed. Obtain medical attention.
2. Eyes	Immediately flush with water for at least 15 minutes, hold eyelids open. Obtain medical attention.
3. Skin	Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if necessary.
4. Ingestion	Do not induce vomiting. If conscious drink large amounts of water/milk. Obtain medical attention. Never give anything by mouth to an unconscious person.

5. Fire-Fighting Measures:

Extinguishing Media	Class ABC, CO ₂ , Halon
Special Fire Fighting Procedures	Full protective clothing and NIOSH approved self-contained breathing apparatus with full face shield. Extinguish fire with agent suitable for surrounding combustible materials. Cool exterior of battery if exposed to fire, to prevent or stop release of lead chemicals and fumes. The acid mist and vapors generated by runoff and dilution water may be toxic and corrosive.

6. Accidental Release Measures:

Not applicable under normal conditions. Avoid contact with any spilled material. Contain spill, isolate hazard area and deny entry. Limit site access to emergency responders.

STEPS TO TAKE IN CASE OF LEAKS OR SPILLS

If sulfuric acid is spilled from a battery, neutralize the acid with sodium bicarbonate (baking soda), sodium carbon (soda ash), or calcium oxide (lime). Flush the area with water; do not allow un-neutralized acid into the sewage system

7. Handling and Storage:

1. Store away from reactive materials, open flames and sources of ignition. Store in a cool, dry area in closed containers.
2. Store lead/acid batteries with adequate ventilation. Never recharge batteries in an unventilated space or remove vent covers.
3. Do not stack batteries in order to prevent damage to terminals.

8. Exposure Controls/Personal Protection:

Respiratory Protection: None required under normal conditions. Acid/gas NIOSH approved respirator is required when the PEL is exceeded or employee experiences respiratory irritation.

Ventilation: Store and handle in dry ventilated area.

Gloves: Wear rubber or plastic acid resistant gloves.

Safety Glasses: Chemical splash goggles or face shield are preferred, or ANSI approved safety glasses with side shields.

Footwear: Safety shoes are recommended when handling batteries.

Other: Safety shower and eyewash stations.

9. Physical and Chemical properties:

Boiling point – NA

Specific Gravity – 1.250-1.320 pH < 2

Melting point – > 320°F (polypropylene)

Vapor Density – Hydrogen: 0.069 (air = 1)
Electrolyte: 3.4 @ STP (air = 1)

Vapor Pressure – NA

Percent Volatile by Volume – NA

Evaporation Rate – NA

Solubility – 100% soluble (electrolyte)

Reactivity in water – Electrolyte-water reactive (1)

Appearance and Odor –

Battery: Co-polymer polypropylene Solid: may be contained within an outer casing of aluminum or steel.

Lead: Gray, metallic, solid; brown/grey oxide

Electrolyte: Odorless, liquid absorbed in glass mat material

No apparent odor.

10. Stability and reactivity:

Stability: Stable

Incompatibility: Materials to Avoid – Sparks, open flames, keep batteries away from strong oxidizers.

Conditions to Avoid: overcharging as high temperatures can cause cases to decompose at > 320°F.

Hazardous Decomposition Products: Combustion can produce carbon dioxide and carbon monoxide.

Hazardous Polymerization: NA

11. Toxicological Information:

General: The primary routes of exposure to lead are ingestion or inhalation of dust and fumes.

Acute: Inhalation/Ingestion: Exposure to lead and its compounds may cause headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and pain in the legs, arms and joints.

Chronic: Prolonged exposure to lead and its compounds may cause damage to kidney and nervous system.

12. Ecological Information:

Hazardous Decomposition Products

1. Battery Electrolyte (Acid): Hydrogen, sulfur dioxide, and sulfur trioxide.
2. Lead/Lead Compounds: Oxides of lead and sulfur.

13. Disposal:

Neutralize spills as above and place in suitable container and dispose as hazardous waste. Do not allow acid into sewer. Return scrap batteries to a lead smelter in accordance with local, state and federal regulations. Contact local and/or state environment officials regarding disposal information.

14. Transport Information:

Batteries: UN2800, Wet, Non-Spillable, Electric Storage. Class 8, Packing Group II

DOT: Excepted from regulations, meets the requirements of 49 CFR 173.159

IATA/ICAO: Excepted from regulations, meets the requirements of Special Provision A48, A67, PI 872 (IATA 56th Edition)

IMDG: Excepted from regulations, meets the requirements in Special Provision 238.

Carefree Batteries having met the related conditions are exempt from hazardous good regulations for the purpose of transportation by DOT, IATA/ICAO, and IMDG, therefore are unrestricted for all modes of transportation. Each battery and outer package is labeled "Non-Spillable" or "Non-Spillable Battery" and packaged as to prevent short circuit.

15. Regulatory Information:

NA

16. Other Information

Updated: 10/21/2014

MATERIAL SAFETY DATA SHEET LC SEALED LEAD ACID BATTERY SERIES

Section I: Chemical Product and Company Identification

Product Identity:

Sealed Lead Acid Battery

Trade Name:

Panasonic LC Valve Regulated Lead Acid Battery Series

Distributor:

 Panasonic Industrial Company - Battery Sales Group
5201 Tollview Drive, 1F-3, Rolling Meadows, IL 60008

Manufacturer:

 Panasonic Energy
Osaka, 570, Japan

For Chemical Emergency
Spill, Leak, Fire, Exposure or Accident
**Call CHEMTREC - Day or Night - 24 hours
1-800-424-9300**
Outside the USA: 1-703-527-3887 (collect)

Telephone Number for General Information

Toll Free 1-800-793-3772

Internet: www.panasonic.com/batteries

Section II: Hazardous Ingredients / Identity Information

Component	Common Name	Chemical Name	Approximate % by wt. or vol.	OSHA PEL	ACGIH TLV	CAS#
Lead	(Negative Electrode and Grid)	Pb	48~53 wt%	0.05 mg/m ³	0.15 mg/m ³	7439-92-1
Lead Oxide	(Positive Electrode)	PbO ₂	23~26%	0.05 mg/m ³	0.15 mg/m ³	1309-60-0
Lead Sulfate	(Positive and Negative Electrode)	PbSO ₄	< 1. wt%	0.05 mg/m ³	0.15 mg/m ³	7446-14-2
Sulfuric Acid	(Electrolyte)	H ₂ SO ₄	7~10 wt%	1.0 mg/m ³	1.0 mg/m ³	7664-93-9

Percentages of components are dependant both on the model of the battery and state of charge/discharge of the battery. Sulfuric Acid is reportable under Sections 302, 311, 312 and 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA). Reportable Quantity: 500 lbs for sulfuric acid and 10,000 lbs for lead. See Section XII, Page 3 for more information.

Overall Chemical Reaction: $\text{PbO}_2 + \text{Pb} + 2\text{H}_2\text{SO}_4 \rightleftharpoons 2\text{PbSO}_4 + 2\text{H}_2\text{O}$

Note: Panasonic Sealed Lead Acid batteries are a sealed, non-spillable design. Under normal use and handling the customer has no contact with the internal components of the battery or the chemical hazards. Under normal use and handling these batteries do not emit regulated or hazardous substances. **Warning:** Battery terminals/posts and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands thoroughly after working with batteries and before eating, drinking or smoking.

Section III: Physical / Chemical Characteristics

Boiling Point:	Electrolyte 110°C - 112°C
Vapor Pressure:	Electrolyte 11.7 mm Hg. at 20°C
Vapor Density (AIR = 1):	Electrolyte 3.4
Solubility in Water:	Lead, Lead Oxide and Lead Sulfate are insoluble in water. Sulfuric Acid is 100% soluble in water.
Appearance and Odor:	The entire battery is a solid article consisting of an opaque plastic case with two protruding lead terminals. The battery is odorless. Sulfuric Acid is a liquid.
Specific Gravity (H₂O = 1)	Electrolyte 1.300

Health Hazard Information (Acute and Chronic) - Sulfuric Acid only.

The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mist containing sulfuric acid" as a Category I carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within the battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of the product, such as overcharging, may however result in the generation of sulfuric acid mist.

Routes of Entry:

By inhalation (mist), skin and eyes, ingestion.

Acute:

 Tissue destruction on contact. May cause 2nd and 3rd degree burns or blindness.
Ingestion will cause corrosive burns on contact. May be fatal if swallowed.

Chronic:

Inhalation of mists may cause upper respiratory irritation.

Signs and Symptoms:

Irritation and burning of exposed tissues.

Medical Conditions:

Respiratory disorders may be aggravated by prolonged inhalation of mists.



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Section IV: Emergency and First Aid Procedures

Battery Electrolyte

Inhalation:	Remove to fresh air. Give oxygen or artificial respiration if needed. Get immediate medical attention.
Eye Contact:	Flush with plenty of water for at least 15 minutes. Get immediate medical attention.
Skin Contact:	Remove contaminated clothing and flush affected areas with plenty of water for at least 15 minutes.
Ingestion:	Do not induce vomiting. Dilute by giving large quantities of water. If available give several glasses of milk. Do not give anything by mouth to an unconscious person. Give CPR if breathing has stopped. Get immediate medical attention.

Section V: Fire and Explosion Hazard Data

Flash Point:	Not Applicable
Flammable Limits:	Lower 4.10% (Hydrogen gas) Upper 74.20%
Extinguishing Media:	Dry chemical, foam, halon or CO ₂ .

Special Fire Fighting Procedures:

If batteries are on charge, turn off power. Use positive pressure, self-contained breathing apparatus in fighting fire. Water applied to electrolyte generates heat and causes it to splatter. Wear acid resistant clothing. Ventilate area well.

Unusual Fire and Explosion Hazards:

Hydrogen and oxygen gases are generated in cells during normal battery operation or when on charge. (Hydrogen is flammable and oxygen supports combustion). These gases enter the air through the vent caps during battery overcharging. To avoid risk of fire or explosion, keep sparks and other sources of ignition away from the battery. Do not allow metal objects to simultaneously contact both positive and negative terminal of batteries. Ventilate area well.

Section VI: Reactivity Data

Stability:	Stable under normal conditions.
Conditions to Avoid:	Sparks and other sources of ignition. Prolonged overcharge. Fire or explosion hazard due to possible hydrogen gas generation.

Incompatibility:

Combination of sulfuric acid with combustibles and organic materials may cause fire and explosion. Avoid strong reducing agents, most metals, carbides, chlorates, nitrates, picrate.

Hazardous Decomposition Products: Hydrogen gas may be generated in an overcharged condition, in fire or at very high temperatures. CO, CO₂ and sulfur oxides may emit in fire.

Hazardous polymerization will not occur.

Section VII: Precautions for Safe Handling and Use

Steps to be Taken in Case of Broken Battery Case or Electrolyte Leakage:

Neutralize any electrolyte or exposed internal battery parts with soda ash (sodium bicarbonate) until fizzing stops. Keep untrained personnel away from electrolyte and broken battery. Place broken battery and clean-up materials in a plastic bag or non-metallic container. Dispose of clean-up materials as a hazardous waste. Ventilate area as hydrogen gas may be given off during neutralization.

Waste Disposal Method:

Federal and State laws prohibit the improper disposal of all lead acid batteries. The battery end users (owners) are responsible for their batteries from the date of purchase through their ultimate disposal. The only legally acceptable method of disposal of lead acid batteries is to recycle them at a Resource Conservation and Recovery Act (RCRA) approved secondary lead smelter. The Panasonic SAV-LEAD Recycling Program allows for the recycling of lead-acid batteries in an environmentally sound manner. For more information on the SAV-LEAD Recycling Program call toll-free, 1-800-SAV-LEAD (1-800-728-5323). These batteries are chemically identical to common automotive starter batteries and can be recycled with automotive lead-acid batteries.

HAZARDOUS WASTE CODES: D002, D008.

Precautions to be Taken in Handling, Storing and Transportation:

Store in cool, dry area away from combustible materials. Do not store in sealed, unventilated areas. Avoid overheating and overcharging.

Other Precautions:

Do not charge in unventilated areas. Do not use organic solvents or other than recommended chemical cleaners on battery.



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Section VIII: Control Measures / Personal Protection

General:

Normal room ventilation is sufficient during normal use and handling. Recommend 2 to 3 room air changes per hour to prevent buildup of hydrogen gas.

Personal Protective Equipment (In the Event of Battery Case Breakage):

Always wear safety glasses with side shields or full face shield.

Use rubber or neoprene gloves.

Wear acid resistant boots, apron or clothing.

Work/Hygienic Practices:

Remove jewelry, rings, watches and any other metallic objects while working on batteries. All tools should be adequately insulated to avoid the possibility of shorting connections. DO NOT lay tools on top of battery. Be sure to discharge static electricity from tools and individual person by touching a grounded surface in the vicinity of the batteries, but away from cells. Batteries are heavy. Serious injury can result from improper lifting or installation. DO NOT lift, carry, install or remove cells by lifting or pulling the terminal posts for safety reasons and because terminal posts and post seals may be damaged. DO NOT wear nylon clothes or overalls as they can create static electricity. DO KEEP a fire extinguisher and emergency communications device in the work area.

IMPORTANT:

Wash hands thoroughly after working with batteries and before eating, drinking or smoking.

Section IX: Regulatory Information

NFPA Hazard Rating for Sulfuric Acid:

Flammability (Red) = 0

Health (Blue) = 3

Reactivity (Yellow) = 2

Section X: Transportation Information

Identification and Proper Shipping Name:

Batteries – Wet, Non-Spillable, Electric Storage, UN 2800.

DOT - Unregulated, meets the requirements of 49 CFR 173, 159 (a).

IATA/ICAO - Unregulated, meets the requirements of Special Provision A67.

IMO - Unregulated.

*For all modes of transportation, each battery and outer package must be labeled: "Non-Spillable" or "Non-Spillable Battery." This label must be visible during transportation. * Batteries must be securely packed to prevent short-circuiting.

Section XI: California Proposition 65 Information

The State of California has determined that certain battery terminals contain lead and lead compounds, and handling this product may also expose you to sulfuric acid mist, chemicals known to the State of California to cause cancer and reproductive harm. **IMPORTANT: WASH HANDS THOROUGHLY AFTER WORKING WITH BATTERIES AND BEFORE EATING, DRINKING OR SMOKING.**

Section XII: Other Information - Notice to Readers

General Product Description – LC VRLA Batteries

Panasonic LC Batteries are **sealed** (valve regulated) non-spillable lead-acid batteries with pasted lead-calcium plates. The electrolyte is held captive in an Absorbed Glass Mat (AGM) separator between plates that immobilize the electrolyte in the cell. AGM separator material is a highly porous, absorbent micro fiberglass mat mixed with polymer fibers. There is no "free" electrolyte to leak out if the cell is tipped over (cell case and cover are sealed together) or if the cell is punctured. The AGM separator material immobilizes the electrolyte and creates a situation where the spill of electrolyte is highly unlikely. Typical accidents where a battery case is punctured results in a slight drip or a slow ooze of material out of the cell that cannot be characterized as a spill.

Panasonic LC VRLA batteries are also different from conventional **unsealed** (wet/flooded) cells because they contain only a minimum amount of electrolyte. VRLA battery electrolyte is a dilute mixture of sulfuric acid in water, which typically has a specific gravity between 1.270 and 1.3. Specific Gravity is a measure of the density of a liquid as compared to that of water, which has a specific gravity of 1.000. Pure sulfuric acid has a specific gravity of 1.835.

NOTE: Panasonic LC batteries do not contain a gel electrolyte.



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LC SEALED LEAD ACID BATTERY SERIES

General Product Description - LC VRLA Batteries (continued)

During normal battery installation, operation and maintenance, the user has NO contact with the internal components of the battery or its internal hazardous chemicals.

Panasonic LC batteries are UL recognized under the file number: Panasonic Corporation, Panasonic Corporation of North America, File #MH13723, 1 Panasonic Way, Secaucus, NJ 07094.

NOTICE TO READERS: DISCLAIMER

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Supplemental Information on Panasonic Valve-Regulated Lead Acid Batteries

Transportation

All Panasonic valve-regulated lead acid batteries are considered "non-spillable" for purposes of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), the International Air Transport Association (IATA) and the International Maritime Dangerous Goods regulations (IMDG). They are considered "non-spillable" by DOT by passing the Vibration Test and Pressure Differential Test as required in 49 CFR 173.159(a). They are also considered to be "non-spillable" by both ICAO and IATA by exceeding the requirements of Special Provisions "A67" as defined in their 1998 Handbooks.

Our batteries are authorized for transportation on deck or under deck storage on either a passenger or cargo vessel by passing the Vibration and Pressure Differential Tests as described in the International Maritime Dangerous Goods Regulations (IMDG).

To transport these batteries as "non-spillable" they must be shipped in a condition that would protect them from short-circuits and be securely packaged so as to withstand conditions normal to transportation. For transportation by a consumer, in or out of a device, they are unregulated thus requiring no additional special handling or packaging.

All of our lead acid batteries and their outside packaging, manufactured after September 30, 1995 are labeled "NON-SPILLABLE" per 49 CFR 173.159(a). If you repackage our batteries either as batteries or as a component of another product you must label the outer package "NON-SPILLABLE" per 49 CFR 173.159(a).

Assure Proper Recycling!

Valve-Regulated Lead Acid batteries destined for recycling can be managed under the federal *Universal Waste Rule* codified at 40 CFR Part 273.

In the event of disposal, dispose only in accordance with federal, state and local regulation. Batteries generated as a waste are subject to the Resource Conservation and Recovery Act (RCRA) as a D008 (lead) hazardous waste.

Panasonic VRLA Recycling Program

The Panasonic 1-800-SAV-LEAD Recycling Program for the collection and recycling of valve-regulated lead acid batteries (VRLA) covers all Panasonic Valve-Regulated Lead Acid Batteries. The proper disposal of spent VRLA batteries is becoming more of a critical issue, both from the viewpoint of environmental stewardship and from compliance with federal and state environmental regulations. Panasonic recognizes the burdens and responsibilities that have been placed on our customers to properly dispose of spent VRLA batteries and is proud to offer this voluntary nationwide battery recycling program.

Federal and State Requirements for Proper Disposal

Federal and State laws prohibit the improper disposal of all lead acid batteries. The battery end users (owners) are responsible for their batteries from the date of purchase through their ultimate disposal. The only legally acceptable method of disposal of lead acid batteries is to recycle them at Resource Conservation and Recovery Act (RCRA) approved secondary lead smelter. This Panasonic 1-800-SAV-LEAD Recycling Program will allow for you to arrange for the recycling of your VRLA batteries from anywhere in the United States. The Program will accept Panasonic and other VRLA batteries regardless of manufacturer. Panasonic will handle all VRLA batteries returned in an environmentally sound manner designed to comply with all applicable Federal and State laws and regulations. Panasonic will send batteries only to fully-permitted secondary lead smelters that we believe meet the highest environmental standards. Once the VRLA batteries are received by Panasonic, the cost to transport the batteries to the secondary lead smelter and the actual recycling costs will be borne by Panasonic.

See the next page for [How the 1-800-SAV-LEAD Recycling Program Works](#)

Supplemental Information on Panasonic Valve-Regulated Lead Acid Batteries (Cont.)

How the 1-800-SAV-LEAD Recycling Program Works

- 1) We encourage all of our customers to serve as VRLA collection centers for your customers, thereby establishing a reverse distribution network between the end user and the secondary lead recycling facility.
- 2) All shipments to our national consolidation facility must be prepaid. No freight collect shipments will be accepted. All freight collect and non-VRLA batteries will be returned to the shipper.
- 3) Panasonic will maintain on file all necessary documentation for EPA reference. A copy will be provided upon request.
- 4) All batteries must be shipped, prepaid to Ebco Battery Company that serves as our national consolidation facility. (See *exception* below).

SHIPPING ADDRESS:
Ebco Battery Company
4017 Warm Springs Road
Columbus, Georgia 31909

- 5) Only VRLA batteries that meet the U.S. Department of Transportation (DOT) "NON-SPILLABLE" (49 CFR 173.159(a) requirements will be accepted by this program.
- 6) Panasonic reserves the right to alter or discontinue this program at any time.

Packaging Requirements

- 1) All VRLA batteries must be fully discharged and packaged in a manner as to insure safe handling and conform to all applicable DOT regulations. (49 CFR 173.159a). A dab of silicon caulking or non-conductive tape on each terminal will ensure that no direct shorts occur during shipment.
- 2) VRLA battery shipments should be made in pallet quantities whenever possible.
- 3) Palletized shipments should be secured with metal bands or poly-wrapped with stack height limited to four (4) feet.
- 4) VRLA batteries shipped on pallets should be of uniform size or be stacked with the larger batteries on the bottom.
- 5) VRLA batteries should be stacked upright in a head-to-base arrangement. Each layer should be separated by cardboard to prevent accidental shorting.
- 6) Smaller quantities of VRLA batteries may be shipped via standard UPS. Be sure that each box does not exceed the UPS weight limit of 70 lbs. A dab of silicon caulking or non-conductive tape on each terminal will ensure that no shorts occur during shipment.
- 7) The outside of every pallet and individual box must be labeled "NON-SPILLABLE" as required by DOT regulations. This label must be visible during transportation.

Exception:

Full-Truck-Loads – All full-truck-load shipments of VRLA batteries must be scheduled 48 hours in advance. To schedule shipments to our consolidation site, please be sure to fax a scheduling request (including contact name and phone number) to Ebco Battery Company at fax: (706) 569-6774.

Consumer Users of Panasonic VRLA Batteries

All Panasonic VRLA batteries are chemically identical to common automotive starter batteries and can be returned to any site that accepts automotive lead acid batteries for recycling. Examples include retailers of automotive batteries, automotive service centers, scrap metal dealers, etc...

For additional information on this program or information on how to recycle other Panasonic batteries please call your local Panasonic Battery Sales Group sales office.

Panasonic Batteries

Panasonic Industrial Company
A Division of Panasonic Corporation of North America
5201 Tollview Drive, 1F-3
Rolling Meadows, IL 60008
Toll Free: 877-726-2228
Fax: 847-637-4660
e-mail: nembatteries@us.panasonic.com
Internet: www.panasonic.com/batteries