

Clore Automotive

Safety Data Sheet
VRLA Rechargeable Battery /
Portable Jump Starters Utilizing Same

Chemical family: This product is a *non-spillable*, wet lead acid storage battery. May also include gel absorbed electrolyte type lead acid battery types.

SECTION 1: HAZARDS IDENTIFICATION

GHS Label Elements:



Signal Word: Danger

Category	GHS Codes	Description
<i>Health</i> STOT RE 2 Acute Tox. 4 Repr. 1A Skin Corr. 1A Flam. Gas 1 Aquatic Chronic 1 Aquatic Acute 1	H302 H314 H332 H360 H373 H220 H410 P260 P301/330/331 P303/361/353	<ul style="list-style-type: none"> - Harmful if swallowed. - Causes severe skin burns and eye damage. - Harmful if inhaled. - May damage fertility or the unborn child. - May cause damage to organs through prolonged or repeated exposure. - Extremely flammable gas (hydrogen). - Very toxic to aquatic life with long lasting effects. - Do not breathe dust/fume/gas/mist/vapors/spray. - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
<i>Handling</i>	P210 P260 P264 P280 P403 P405 P391 P273 P501	<ul style="list-style-type: none"> - Keep away from heat/sparks/open flames/hot surfaces. No smoking. - Do not breathe dust/fume/gas/mist/vapors/spray. - Wash thoroughly after handling. - Wear protective gloves/protective clothing/eye protection/face protection. - Store in well-ventilated area - Store locked up. - Collect spillage. - Avoid release to the environment. - Dispose of contents/container in accordance with local/regional/national/international regulation.

Note:

The battery has passed the vibration test, pressure differential test and leakage test at 55°C according to recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulation

17th SPECIAL PROVISION 238. It is not restricted according to IATA Dangerous Goods Regulation (DGR) 56th per special provision A67 and is not restricted according to IMDG CODE per special provision 238.

SECTION 2: INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Concentration (% by Wt.)	Hazardous Label
Inorganic Lead/Lead Compounds	7439-92-1	~72%	T
Sulfuric Acid	7664-93-9	~20%	C
Fiberglass Separator	65997-17-3	~2%	/
Silicon Dioxide (Gel batteries only)	7631-86-9	~10% of acid Wt.	/
Container Plastic (ABS or PP)	9003-56-9 (ABS)	~5%	/
	9003-07-0 (PP)		/

Note:

Inorganic lead and electrolyte (water and sulfuric acid solution) are the primary components of all Clore Automotive portable jump starter batteries. Other ingredients may be present dependent upon battery type. ABS is the primary case material of our jump starter batteries.

SECTION 3: FIRST-AID MEASURES

Take proper precautions to ensure your own health and safety before attempting to rescue a victim and provide first aid.

Skin Contact:

Electrolyte: Flush with large amounts of water for at least 15 minutes; remove contaminated clothing completely, including shoes, and do not wear again until cleaned. If acid is splashed on shoes, remove and discard if they contain leather.

Lead compounds: Wash immediately with soap and water. Lead compounds are not readily absorbed through the skin.

Eye Contact:

Electrolyte and Lead compounds: Flush immediately with large amounts of water for at least 15 minutes; consult physician immediately.

Inhalation Exposure:

Electrolyte: If sulfuric acid mist or vapor is inhaled, move to an area with fresh air and warm yourself using a blanket. Seek medical advice / attention immediately.

Lead compounds: Remove from exposure, gargle, wash nose and lips; consult physician.

Oral Exposure:

Electrolyte: If this liquid is swallowed, wash your mouth with plenty of water immediately, then drink plenty of water. Obtain medical advice or attention. Do not induce vomiting when swallowed. In addition, do not perform any action, such as a neutralization process.

Lead compounds: Consult physician immediately.

SECTION 4: FIRE FIGHTING MEASURES

Flash Point: Not Applicable

Flammable Limits: LEL = 4.1% (hydrogen gas in air); UEL = 74.1%

Extinguishing Media: Small fire – Foam halogen and/or non-flammable gas fire extinguisher
Large fire: Large quantities of sprinkled and/or atomized water. (In this case, to prevent environmental damage, flush water must be treated appropriately.)

Particular hazards: Irritant, corrosive and/or toxic gases may escape from a burning battery.

Proper fire fighting: If possible, disconnect from power first if batteries are on charge or remove ignition source and remove batteries from the fire source. Where possible, extinguish the fire from well ventilated area upwind from fire. Water used to extinguish fire must be treated appropriately to prevent environmental damage. Cool down burnt batteries using plenty of water.

Fire Fighting Procedures: Use positive pressure, self-contained breathing apparatus. Beware of acid splatter during water application and wear acid-resistant clothing, gloves, face and eye protection. If batteries are on charge, shut off power to the charging equipment, but, note that strings of series connected batteries may still pose risk of electric shock even when charging equipment is shut down.

SECTION 5: ACCIDENTAL RELEASE MEASURES

Human body: Do not touch the spilled electrolyte and walk around the spillage site. Keep outsiders from the spillage site.

Environment: Spilled electrolyte must be treated appropriately to prevent environmental damage, such as direct out flowing of the spilled electrolyte into river, drain, etc..

Neutralization: Neutralize spilled electrolyte with sodium bicarbonate, lime, etc. and flush with large quantities of water.

SECTION 6: HANDLING AND STORAGE

Handling: Keep away from ignition sources, heat and flame. Batteries must be packed in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse and overcharge. More than a momentary

short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly.

Storage: Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Batteries must be packed in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidant, combustible materials and corrosives.

Charging: There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not they are being charged. Shut off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging location should be well ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batteries.

SECTION 7: EXPOSURE CONTROL AND PERSONAL PROTECTION

Not applicable for Valve Regulated Lead Acid battery.

SECTION 8: PHYSICAL/CHEMICAL PROPERTIES

Not applicable for Valve Regulated Lead Acid battery.

Reference (component)

	Electrolyte (Sulfuric Acid)	Lead
Appearance	Clear	Silvery solid
Specific Gravity	1.280 – 1.380 (38 – 48 %)	11.3
Boiling Point	112 deg. C (38%)	1740 deg. C
Melting Point	-40 deg. C or below	327 deg. C
Solidifying Point	-56.4 deg. C (34.6%)	-
Vapor Pressure	3.17 kPa (30%)	0.1 Pa or less (25 deg. C)

SECTION 9: STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Materials to Avoid: Strong oxidant, corrosives.

Conditions to Avoid: Avoid exposure to heat and open flame. Avoid mechanical or electrical abuse and overcharge. Prevent short circuits. Prevent movement which could lead to short circuits.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Sulfur oxides, Sulfuric acid mist, Metal oxides.

SECTION 10: TOXICOLOGICAL INFORMATION

Routes of Entry: *Electrolyte:* Harmful by all routes of entry. Under normal conditions of use, sulfuric acid vapors and mist are not generated. Sulfuric acid vapors and mist may be generated when product is overheated, oxidized, or otherwise processed or damaged.

Lead compounds: Under normal conditions of use, lead dust, vapors, and fumes are not generated. Hazardous exposure can occur only when product is heated above the melting point, oxidized or otherwise processed or damaged to create dust, vapor, or fume.

Acute Toxicity:

Inhalation LD₅₀: *Electrolyte:* LC50 rat: 375 mg/m³; LC₅₀: guinea pig: 510 mg/m³

Elemental Lead: Acute Toxicity Point Estimate = 4500 ppmV (based on lead bullion)

Oral LD₅₀: *Electrolyte:* rat: 2140 mg/kg

Elemental lead: Acute Toxicity Estimate (ATE) = 500 mg/kg body weight (based on lead bullion)

Correspond to section 3

SECTION 11: ECOLOGICAL INFORMATION

Environmental Fate: Lead is very persistent in soil and sediments. No data on environmental degradation. Mobility of metallic lead between ecological compartments is slow. Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. Most studies include lead compounds and not elemental lead.

Environmental Toxicity: Aquatic Toxicity: *Sulfuric acid:* 24-hr LC50, freshwater fish (*Brachydanio rerio*): 82 mg/L 96 hr- LOEC, freshwater fish (*Cyprinus carpio*): 22 mg/L

Lead: 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion

SECTION 12: DISPOSAL CONSIDERATIONS

Appropriate Method of Disposal of Substance:

Lead-acid batteries are completely recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, place residue in acid-resistant containers with sorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information.

SECTION 13: TRANSPORT INFORMATION

We hereby certify that all listed Clore Automotive portable jump starter batteries conform to the UN2800 classification as "Batteries, Wet, Non-Spillable" as a result of passing the Vibration and Pressure Differential Test described in D.O.T., 49 CFR 173.159(f), and IMO/IMDG, and ICAO/IATA packing instruction 872 and note A48, A67, A164 and A183. The batteries are not restricted according to IMO/IMDG code per special provision 238.

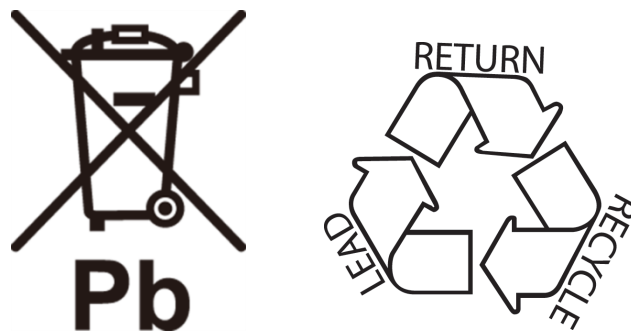
Clore Automotive portable jump starter batteries, having met the related conditions, are EXEMPT from hazardous goods regulations for the purpose of transportation by DOT and IATA/ICAO, and therefore are unrestricted for transportation by any means. For all modes of transportation, each battery outer package must be labeled "NON-SPILLABLE."

Products returned to Clore Automotive, or subsequently transported, that contain a battery or jump starter, must be returned in the original package or in a strong outer box, certified for the weight of the unit, with adequate packing material to prevent the unit from movement inside the carton. For shipments of batteries, battery posts must be protected to prevent any possible short circuit. For jump starters, the grips must be properly wrapped around the unit and clamps secured to prevent a short circuit in transit. If a unit is being transported with metal clamps, grips must be protected using the originally supplied grip guards, or the grips wrapped so as to prevent a short circuit. In addition the carton must be marked with phrase 'Non-spillable battery' so as to comply with the requirements for transporting this as a non-dangerous shipment.

SECTION 14: REGULATORY INFORMATION

EU Regulation:

In accordance with EU2006/66/EC Battery Directive, VRLA batteries should present crossed-out wheeled bin symbol of lead together with the ISO recycling symbol. Does not contain any mercury, Hg, (<0.0005%) or cadmium, Cd, (<0.002%).



SECTION 15: OTHER INFORMATION

Products such as Batteries are not in the scope of regulation which requires the publication of an EU Safety Data Sheet (91/155/EEC).