

Material Safety Data Sheet

Sealed Lead Acid – AGM (Golf Cart)

The information and recommendations below are believed to be accurate at the date of preparation. Ascent Battery makes no warranty of merchantability or any other warranty, express or implied, with respect to such information and we assume no liability resulting from its use. This MSDS sheet provides guidelines for safe use and handling of the product. It does not and cannot advise all possible situations. Your specific use of this product should be evaluated to determine if additional precautions must be taken.

Company	Ascent Battery Supply	Emergency Number	INFOTRAC 800-535-5053
Address	925 Walnut Ridge Drive Hartland, WI 53029	Overseas Emergency Number	INFOTRAC 800-535-5053
Revision Date	04-2011		

SECTION 1 – IDENTITY

Product Name	Rayovac Ultra Pro AGM Golf Cart Battery
Common Synonyms	SLA, VRLA, AGM, Sealed Recombinant
DOT Description	Wet Battery, non-spillable
Chemical Name	Sealed Lead Acid; Secondary Battery Battery

SECTION 2 – HAZARDOUS INGREDIENTS

Chemical Name	CAS No.	Percentage %
Lead (Pb)	7439-92-1	60-70
Lead Oxide (PbO ₂)	1309-60-0	60-70
ABS	9003-56-9	5-10
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	10-15
Tin (Sn)	7440-31-5	<1
Calcium	7440-70-2	<0.15
AGM Separator	N/A	3-4

SECTION 3 – PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point	NA	Melting Point	NA
Vapor Pressure	NA	Vapor Density	NA
Specific Gravity	Lead, approx. 13	Percent Volatile By Volume	None
Solubility in Water	NA	Reactivity in Water	NA
Appearance and Odor	Rectangular polypropylene or polystyrene case with lead terminals	Evaporation Rate	NA
Flash Point	NA	Flammable Limits in Air % by Volume	NA
Extinguisher Media	Carbon dioxide, dry chemical powder, or appropriate foam	Auto-Ignition Temperature	NA
Special Fire Fighting Procedures	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. Wear self-contained breathing apparatus and protective clothing.		

Unusual Fire and Explosion Hazards Toxic fumes; gases or vapors may be emitted upon burning.

SECTION 4 – PHYSICAL HAZARDS

Stable or Unstable	Stable	Conditions to Avoid	Heat and open flame, short circuit, and water		
Incompatibility (Materials to Avoid)	Keep battery clear of strong oxidizers and solvents.				
Hazardous Decomposition	CO, CO ₂ , acid, hydrogen and oxygen gas.				
Hazardous Polymerization	Will not occur.				

SECTION 5 – HEALTH HAZARDS

Threshold Limit Value	Permissible exposure limits	Lead	TVL 0.15mg/m ³	PEL 0.05mg/m ³	
		Sulfuric Acid	TVL 1 mg/m ³	PEL 1mg/m ³	
Signs and Symptoms of Exposure	Exposure to sulfuric acid, lead, lead dioxide, or lead sulfate may occur if the sealed battery case is damaged. Exposure to lead may include: Chronic over exposure: Tire easily, loss of appetite, irritability, metallic taste, insomnia; toxic to nervous system, kidneys and reproductive system. Acute overexposure: Constipation, vomiting, blue line on gums, weak wrists and ankles, weight loss, yellowish skin. Exposure to sulfuric acid: Chronic over exposures: inhalation-erosion of teeth, inflammation of nose, throat and bronchial tubes. Acute overexposure: Eyes - severe burns, cornea damage, blindness. Skin - severe irritation, burns, ulceration. Inhalation - respiratory irritation, inflammation of bronchial membranes. Ingestion- severe burns of the mouth, throat, esophagus and stomach, damage to kidney and intestinal tract.				
Medical Conditions Generally Caused by Exposure	Respiratory exposure to airborne sulfuric acid will increase damaged to lungs and other pulmonary conditions. Harmful effects of lead are increased for a person with dietary deficiencies in calcium, iron and zinc.				
Routes of Entry	Skin, Eyes, Swallowing				
Emergency and First Aid Procedures for	Lead and Sulfuric Acid				
1. Inhalation	Get fresh air. If symptoms persist seek medical attention				
2. Eyes and Skin	If a cell ruptures flush, with copious quantities of flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water. Remove all contaminated clothing.				
4. Ingestion	Ingestion of battery chemicals can be harmful. Call The National Battery Ingestion Hotline (202-625-3333) 24 hours a day, for procedures treating ingestion of chemicals. Do not induce vomiting. Dilute by giving milk and water. Do not give anything by mouth to an unconscious person.				

SECTION 6 – SPECIAL PROTECTION INFORMATION

Respiratory Protection	If product is involved in fire, it may cause the release of dust and fumes and the use of a face mask is recommended.				
Ventilation	Charge batteries in a well vented area.	Local Exhaust	NA	Mechanical (General)	NA
Gloves	Use gloves when handling SLA batteries.	Safety Glasses	Always wear safety glasses when working with batteries and cells.		

SECTION 7 – SPECIAL PRECAUTIONS – SPILL AND LEAKAGE PROCEDURES

Storing Procedures	Store in dry and ventilated area.				
Other Precautions	Do not store in air tight container. Do not allow metal or other conductive materials to short circuit terminals				
Steps if chemicals are spilled	Will not occur unless case is damaged or vents. Pick up and place in materials in container. Neutralize sulfuric acid with lime, soda ash or sodium bicarbonate.				
Waste Disposal	Batteries must be recycled.				
Transportation	Considered to be "Wet Batteries" but are non-spillable. All of our lead acid batteries are unregulated by DOT for transportation by truck, rail, ocean and air transportation because they meet the				

requirements of 49 CFR 173.159 (d). The only transportation requirements are :

- 1) The battery must be securely packaged in such a way to prevent the possibility of short circuiting.
- 2) The battery and the outer most packaging must be labeled "NONSPILLABLE" or "NONSPILLABLE BATTERY".

ICAO/IATA	IMDG CODE	DOT
Not-regulated	Not-regulated	Not-regulated
Can be shipped by air in accordance with International Air Transport Association(IATA), DGR Packing Instructions(PI), PI806 appropriate	International Maritime Organization (IMO) under Special Provision 238	Non-Spillable Battery complies with the provisions listed in 49 CFR 173.159(d), therefore must not be marked with an identification number or hazardous label and is not subject to hazardous shipping paper requirements.

Recommendations on the transport of dangerous goods-model regulations(15th revised), IATA dangerous goods regulations, International Maritime Dangerous Goods Code, U.S. Hazardous Material Regulations