Material Safety Data Sheet — Powersport Acid Electrolyte

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	Batteries Plus LLC	**Emergency Number**	INFOTRAC 800-535-5053
Address	Batteries Plus, LLC 925 Walnut Ridge Dr. Hartland, WI 53029	**Overseas Emergency Number**	INFOTRAC 800-535-5053
Revision Date	12/2010		

SECTION 1 – IDENTITY

Product Name	Battery Acid
Common Synonyms	Battery Electrolyte
DOT Description	Battery Acid
Chemical Name	Sulfuric Acid

SECTION 2 – HAZARDOUS INGREDIENTS

Chemical Name	CAS No.	Percentage %
Sulfuric acid	7664-93-9	36.8 – 41.4%

SECTION 3 – PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point	230ºF	**Melting Point**	-79.6ºF
Vapor Pressure	11.7 (mm Hg at 20ºC)	**Vapor Density**	3.4 (Air = 1)
Specific Gravity	1.28 – 1.32 (H_2O = 1)	**Percent Volatile By Volume**	0
Solubility in Water	100%	**Reactivity in Water**	NA
Appearance and Odor	Clear to cloudy liquid with slight acidic odor.	**Evaporation Rate**	Not determined
Flash Point	None	**Flammable Limits**	None
Extinguisher Media	Co2; foam; dry chemical	**Auto-Ignition Temperature**	None
Special Fire Fighting Procedures	Avoid use of water where there is danger of acid spreading. Use pressure-demand, self-contained breathing apparatus where acid vapor or mist may be present.		
Unusual Fire and Explosion Hazards	Charging and forming batteries may generate hydrogen gas which is flammable and explosive. They also generate oxygen which supports combustion. Therefore, keep sparks and other sources of ignition away. Hydrogen may also be generated by the action of acid on organic materials, nitrates, carbides and most metals.		

SECTION 4 – PHYSICAL HAZARDS

Stable or Unstable	Stable	**Conditions to Avoid**	Prevent smoking, fires, and any other source of ignition around lead acid batteries.
Incompatibility (Materials to Avoid)	Combustible materials (especially finely divided), strong reducing agents, most metals, carbides, organic materials, chlorates, nitrate picrates, and gulminates.		
Hazardous Decomposition	Hydrogen, sulfur dioxide, sulfur trioxide. .		
Hazardous Polymerization	Will Not Occur		

SECTION 5 – HEALTH HAZARDS

Signs and Symptoms of Exposure	ACUTE EFFECTS : Exposure to high concentrations of battery electrolyte (acid) mist cause severe irritation of eyes, respiratory tract and skin. It may also casue tooth erosion, mouth soreness, or breathing difficulties. Contact with battery electrolyte (acid) may irritate the skin and mucous membranes and may cause irreparable corneal damage and blindness as well as facial scarring which can include the eyelids. CHRONIC EFFECTS : Repeated or prolonged exposure to battery electrolyte (acid) may cause skin irritation. Repeated or prolonged exposure to mist may erode the teeth; cause dermatitis, chronic irritation of eyes. Mouth and stomach, and chronic inflammation of the nose, throat and bronchial tubes.
Medical Conditions Generally Caused by Exposure	Contact of battery electrolyte (acid) with the skin and eyes may aggravate chronic skin and eye diseases. Inhalation of mist may aggravate chronic diseases of the respiratory tract and stomach. **POTENTIAL TO CAUSE CANCER:** The National Toxicological Program (NTP) and The International Agency for Research on Cancer (IARC) have classified « strong inorganic acid mist containing sulfuric acid » as a Category 1 carcinogen, a substance that is carcinogenic to humans. The ACGIH has classified « strong inorganic acid mist containing sulfuric acid » as an A2 carcinogen (suspected human carcinogen). These classifications do not apply to liquid forms of sulfuric acid or sulfuric acid solutions 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.
Routes of Entry	Inhalation, ingestion, skin, eyes
Emergency and First Aid Procedures for	
1. Inhalation	Remove from exposure and consult a physician if any of the acute effects listed above develop.
2. Eyes	Hold eyelids open and immediately rinse with cool, running water for at least 15 minutes. Seek medical attention after rinsing.
3. Ingestion	Do not induce vomiting. See a physician immediately. Do not give anything by mouth to an unconscious person.
4. Skin	Wash thoroughly with soap and water. If acid is splashed on clothing, immediately remove them and discard. If acid is splashed in shoes, remove them immediately and discard. Acid cannot be removed from leather.

SECTION 6 – SPECIAL PROTECTION INFORMATION

Respiratory Protection	None required under normal handling conditions. If acid spillage occurs in a confined space, a respirator suitable for protection against acid mist may be required.				
Ventilation	Ventilate area	**Local Exhaust**	NA	**Mechanical** (General)	NA
Gloves	Rubber or plastic acid-resistant gloves with elbow-length gauntlet for use when filling batteries.	**Safety Glasses**		Chemical goggles and face shield for use when filling batteries.	

SECTION 7 – SPECIAL PRECAUTIONS – SPILL AND LEAKAGE PROCEDURES

Storing Procedures

ENGINEERING CONTROLS:
Use general dilution ventilation to maintain concentrations of sulfuric acid mist below the OSHA PEL of 1 mg/m3 when forming or charging batteries.
WORKING PRACTICES:
Handle lead acid batteries and containers of acid carefully to avoid spilling the acid.

Other Precautions

HYGIENE PRACTICES:
Remove splashes of acid immediately from the skin with large amounts of cool, running water followed by washing with soap and water.
PROTECTIVE MEASURES TO BE TAKEN DURING NON-ROUTINE TASKS INCLUDING EQUIPMENT MAINTENANCE:
Wear recommended eye protection. If clothing becomes saturated with acid, remove and wash affected area with water for 15 minutes. Discard saturated clothing.

Steps if chemicals are spilled

PROTECTIVE MEASURES TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED :
Ventilate area. Remove combustible materials and all sources of ignition. Contain spill with soda ash (sodium carbonate) or lime (calcium oxide). Cover spill with either chemical. Mix well. Make certain mixture is neutral (check with Ph paper). Collect residue and place in a drum or other suitable container. Dispose of as hazardous waste.
Wear acid resistant boots, face shield, chemical splash goggles, and acid resistant gloves.

Waste Disposal

Do not release unneutralized acid.
Neutralize as above for a spill, collect residue, and place in a drum or other suitable container. Dispose of as hazardous waste.

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of at any approved waste facility (Department of Environmental Affairs and Tourism) Processing , use or contamination or this product (e.g. Lead) may change the waste management options.

DISPOSAL OF PACKAGING:
Dispose of container and unused contents in accordance with legal requirements. Containers of this material may be hazardous when empty since they retain product residues. Observe all warnings and precautions listed for the product.

Transportation

UN NO. : 2796
SUBSTANCE IDENTITY NO.: Sulfuric acid, not more than 41.5% 7664-93-9
LAND
PROPER SHIPPING NAME: Battery acid (Sulfuric acid, not more than 41.5%)
HAZARD CLASS: 8
PACKING GROUP: II EXEMPT QUANTITY: < 200kg
SEA
PROPER SHIPPING NAME: Battery acid (Sulfuric acid, not more than 41.5%)
HAZARD CLASS : 8
PACKING GROUP: II UN NO.: 2796 EXEMPT QUANTITY: < 200kg
REGULATION INFORMATION
RISK PHRASES : R :35
SAFETY PHRASES : S : (1/2)-26-30-45
ADDITIONAL LEGISLATION:
1) Hazardous Chemical Substance Regulations of Occupational Health and Safety Act no. 85 of 1983.
2) National Road Traffic Act Chapter V for Transportation of Dangerous Goods.
OTHER INFORMATION
NFPA RATINGS:
Health 3
Flammability 0
Reactivity 2
Other—water reactive
LABEL HAZARD: Poison—Danger
WARNING:
Corrosive liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or contacted with skin. Harmful if inhaled. Affects teeth. Water reactive. Cancer hazard. Strong inorganic mists containing sulfuric acid can cause cancer.