SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Interstate All-Battery
4301 121st Street
Urbandale, IA 50323

EMERGENCY PHONE: 24 hours – (800) 255-3924
INFORMATION PHONE: (800) 541-8419, Ext. 6672 or 6663

PRODUCT NAME: SLA (Sealed Lead Acid) GEL battery. Lead Acid (Non-Spillable) Gel Battery

SDS NUMBER: GEL1 **REVISION NUMBER:** 1

DATE OF PREPARATION/REVISION: January 1, 2021

Section 2: HAZARDS IDENTIFICATION

NOTE: Under normal conditions of battery use, internal components will not present a health hazard. The following information is provided for battery electrolyte (acid) for exposure that may occur during container breakage or under extreme heat conditions such as fire.

EMERGENCY OVERVIEW:

The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful. If the battery is opened or broken then the following hazards apply:

ROUTES OF ENTRY:

EYE CONTACT: Corrosive to the eyes and may cause severe damage including blindness. Seek medical attention.

SKIN CONTACT: Contents of an open battery can cause skin irritation and/or chemical burns. Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.

INHALATION: Harmful by inhalation. Contact with moist mucous membranes of the respiratory system can cause caustic condition resulting in burns.

INGESTION: Swallowing a battery can be harmful. Can burn mouth, throat and stomach.

ACUTE HEALTH EFFECTS:

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Exposure and/or contact with battery electrolyte (acid) may lead to acute irritation of the skin, corneal damage of the eyes, and irritation of the mucous membranes of the eyes and upper respiratory system, including lung.

CHRONIC HEALTH EFFECTS:

Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system. Avoid repeated exposure. Severe exposures can lead to shock, circulatory collapse and death. Lead poisoning is characterized by a metallic taste in the mouth, loss of appetite, indigestion, nausea, vomiting, constipation, sleep disturbances and overall weakness.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure in unlikely to aggravate existing medical conditions.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Material	% by Wt.	CAS Number	Eight Hour Exposure Limits		
			OSHA PEL	NIOSH REL	ACGIH REL
Lead	60~74	7439-92-1	0.05 mg/m³	0.05 mg/m³	0.05 mg/m³
Sulfuric Acid	20~25	7664-93-9	0.1 mg/m³	1 mg/m³	0.2 mg/m³
ABS resin	~5	9003-56-9			
Tin	<0.5	7440-31-5	0.1 mg/m³	0.1 mg/m³	0.1 mg/m³
Calcium	<0.1	7440-70-2	NA	NA	NA
Silicon Dioxide	1~2	60676-86-0	0.05 mg/m³	0.05 mg/m³	0.1 mg/m³

Section 4: FIRST AID MEASURES

EYE CONTACT: Immediately rinse with cool running water for at least 15 minutes. Seek medical attention immediately after rinsing.

SKIN CONTACT: Wash thoroughly with soap and water. If acid is splashed on clothing or shoes, remove immediately and discard.

INHALATION: Remove from exposure to fresh air and consult a physician if any of the acute effects listed above develop.

INGESTION: Do not induce vomiting. Drink plenty of water. Refer to a physician immediately.

Section 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use extinguishing measures that are appropriate to local circumstances and surrounding environment.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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Section 6: ACCIDENTAL RELEASE MEASURES

DO NOT use of finely divided combustibles materials (e.g., sawdust) for cleaning up spills. If batteries show signs of leaking, AVOID skin or eye contact with the material leaking from the battery. Dilute the leaked electrolyte with water and neutralize with diluted sulfuric acid. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean-up. Do not throw out into the environment.

Section 7: HANDLING AND STORAGE

WORK PRACTICES: Thoroughly wash hands after cleaning-up a battery spill (i.e., leaking or venting batteries). NO eating, drinking, or smoking in battery storage areas.

Accidental short circuit for a few seconds will not seriously affect the battery. However, this battery is capable of delivering very high short circuit currents. Prolonged short circuits will cause high cell temperatures which can cause skin burns. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, and metal covered tables or metal belts used for assembly of batteries into devices. Do not open battery. The negative electrode material may be pyrophoric. Should an individual cell from a battery become disassembled, spontaneous combustion of the negative electrode is possible. This is much more likely to happen if the electrode is removed from its metal container. There can be a delay between exposure to air and spontaneous combustion.

STORAGE: Store batteries in a cool, well ventilated area. Elevated temperatures can result in shortened battery life. Do not store batteries in direct sunlight or under hot conditions. Keep batteries away from open flame or heat.

OPEN BATTERY STORAGE: Battery should not be opened. Should a cell become disassembled, the electrode should be stored in a fireproof cabinet, away from combustibles. Keep batteries between -20℃ and 35℃ for prolong storage. When the cells are closed to fully charged, the storage temperature should be between -20℃ and 30℃ and should be controlled at 10-20℃ during transportation and packed with efficient air ventilation.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Not required under normal handling conditions. Battery should not be opened. Should a cell become disassembled, the electrode should be stored in a fireproof cabinet, away from combustibles.

RESPIRATORY PROTECTION: None required under normal handling conditions. If respiratory irritation occurs, wear a respirator suitable for protection against acid mist.

GLOVES: Not necessary under normal conditions. Use neoprene or natural rubber gloves if handling an open or leaking battery.

EYE PROTECTION: Not necessary under normal conditions. Wear safety glasses with side shields if handling an open or leaking battery.

OTHER PROTECTIVE EQUIPMENT: None required under normal handling conditions.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE (PHYSICAL STATE, & COLOR) :** Solid & Black
- **ODOR:** Odorless

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- **ODOR THRESHOLD:** Not applicable
- **PH:** Not applicable
- **MELTING POINT/FREEZING POINT:** Not applicable
- **INITIAL BOILING POINT AND BOILING RANGE:** Not applicable
- **FLASH POINT:** Not applicable
- **EVAPORATION RATE:** Not applicable
- **FLAMMABILITY (SOLID, GAS):** Not determined
- **UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** Not determined
- **VAPOR PRESSURE:** Not applicable
- **VAPOR DENSITY:** Not applicable
- **RELATIVE DENSITY:** Not applicable
- **SOLUBILITY(IES):** Insoluble in water
- **PARTITION COEFFICIENT: *N*-OCTANOL/WATER:** Not applicable
- **AUTO-IGNITION TEMPERATURE:** Not applicable
- **DECOMPOSITION TEMPERATURE:** Not applicable

Section 10: STABILITY AND REACTIVITY

STABILITY:

☐ Unstable ☑ Stable

CONDITIONS TO AVOID:

Flames, sparks, and other sources of ignition

INCOMPATIBILITY: Incompatible with strong acids and bases. Incompatible with oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

HAZARDOUS POLYMERIZATION: Will not occur.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Irritation Causes severe irritation and or burns

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid	= 2140 mg/kg (Rat)	-	= 510 mg/m3(Rat) 2 h

Chronic Toxicity

Chronic Toxicity Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system. Avoid repeated exposure.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Lead	A3	Group 2A	Reasonably Anticipated	X
Sulfuric acid	A2	Group 1	Known	X
ABS resin		Group 3		

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ACGIH: (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)
X - Present

Reproductive Toxicity	Product is or contains a chemical which is a known or suspected reproductive hazard.
Developmental Toxicity	Contains ingredients that have suspected developmental hazards. Inorganic lead compounds can cause developmental damage.
Target Organ Effects	None known.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Lead		LC50: 0.44 mg/L (96 h semi-static) Cyprinus carpio LC50: 1.17 mg/L (96 h flow-through) Oncorhynchus mykiss LC50: 1.32 mg/L (96 h static) Oncorhynchus mykiss		EC50: 600 µg/L (48 h) water flea
Sulfuric acid		LC50: > 500 mg/L (96 h static) Brachydanio rerio		EC50: 29 mg/L (24 h) Daphnia magna

Section 13: DISPOSAL

Waste Disposal Methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment.
Contaminated Packaging	Do not re-use empty containers.
US EPA Waste Number	D002 D008

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Lead - 7439-92-1	(hazardous constituent - no waste number)	Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K064, K065, K066, K069, K086, K100, K176	= 5.0 mg/L regulatory level	

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California Hazardous Waste Codes 792

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California EHW	California Carc	California Hazardous Waste	California Waste - Part 2
Lead			Toxic	TCLP (for CA Toxicity): 5.0 mg/L
Sulfuric acid			Toxic Corrosive	
Calcium	Ignitable Reactive			

Section 14: TRANSPORTATION INFORMATION

US DOT SHIPPING NAME: Battery, Wet, Non-Spillable

All Interstate Batteries brand and Power Patrol brand sealed lead-acid batteries are "Non-Spillable batteries" as defined by the United States Hazardous Materials Regulations in Title 49 Code of Federal Regulations Part 173.159a and by the Transport Canada Dangerous Goods Regulations Part 12.9(11)(a)(ii)(B). These batteries pass both the Vibration Test and the Pressure Differential Test that are described in 49 CFR 173.159(f).

Non-spillable batteries may be transported by air, truck, and boat and are excepted from the packaging requirements of §173.159 under the following conditions which are found in 49 Code of Federal Regulations 173.159a, the ICAO/IATA Special Provision A67, the ICAO/IATA Packing Instruction # 872, and IMDG Special Provision 238 which are printed below

49 CFR 173.159a says:

(1) The battery must be securely packed in strong outer packaging, terminals are protected against short circuits, and meet the requirements of 49 CFR §173.159(a).
(2) A non-spillable battery which is an integral part of and necessary for the operation of mechanical or electronic equipment must be securely fastened in the battery holder on the equipment and protected in such a manner as to prevent damage and short circuits.
(3) The battery and outer packaging must be plainly and durably marked "NON-SPILLABLE" or "NON-SPILLABLE BATTERY." The requirement to mark the outer package does not apply when the battery is installed in a piece of equipment that is transported unpackaged.

If the battery complies with the 3 conditions listed above then the Shipping Paper does not need to show the UN Number, the shipping name, hazard class, and Packing Group. Also, Hazardous labels are not required.

For Shipment by Air: ICAO/IATA SPECIAL PROVISION A67

A67 Non-spillable batteries meeting the requirements of Packing Instruction 872 are not subject to these Regulations if, at a temperature of 55ºC (131ºF), the electrolyte will not flow from a ruptured or cracked case. The battery must not contain

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any free or unabsorbed liquid. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be prepared for transport so as to prevent:

(a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals); and

(b) unintentional activation

The words "Not Restricted" and the Special Provision number A67 must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued.

For Shipment by Air: ICAO/IATA PACKING INSTRUCTION 872

This instruction applies to Non-Spillable batteries (Batteries, wet, non-spillable) on Passenger Aircraft and Cargo Aircraft Only.

The General Packing Requirements of 5.0.2 must be met.

Compatibility Requirements

- Substances must be compatible with their packagings as required by 5.0.2.6;
- Metal packagings must be corrosion resistant or with protection against corrosion.

Closure Requirements

- Closures must meet the requirements of 5.0.2.7;

Testing

Batteries can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.

Vibration test— The battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.8 mm (0.032 in) (1.6 mm [0.063 in] maximum total excursion) is applied. The frequency is varied at the rate of 1 Hz/min between the limits of 10 Hz to 55 Hz. The entire range of frequencies and return is traversed in 95±5 minutes for each mounting position (direction of vibration) of the battery. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods.

Pressure differential test— Following the vibration test, the battery is stored for six hours at 24°C ± 4°C (75°F ± 8°F) while subjected to a pressure differential of at least 88 kPa. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least six hours in each position.

***Note**: Non-spillable type batteries which are an integral part of, and necessary for the operation of mechanical or electronic equipment, must be securely fastened in the battery holder on the equipment and protected in such a manner as to prevent damage and short circuits.*

IMDG Special Provision 238

238 (a) Batteries can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.

Vibration test: The battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.8 mm (1.6 mm maximum total excursion) is applied. The frequency is varied at the rate of 1 Hz/min between the limits of 10 Hz and 55 Hz. The entire range of frequencies and return is traversed in 95 □□5 minutes for each mounting position (direction of vibration) of the battery. The battery is tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods.

Pressure differential test: Following the vibration test, the battery is stored for six hours at 24 °C □□4 °C while subjected to a pressure differential of at least 88 kPa. The battery is tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least six hours in each position.
***NOTE:** Non-spillable type batteries which are an integral part of and necessary for the operation of mechanical or electronic equipment, shall be securely fastened in the battery holder on the equipment and protected in such a manner as to prevent damage and short circuits.*
(b) Non-spillable batteries are not subject to these Regulations if, at a temperature of 55 °C, the electrolyte will not flow from a ruptured or cracked case and there is no free liquid to flow and if, when packaged for transport, the terminals are protected from short circuit.

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Intact (unbroken), spent lead-acid batteries are considered to be hazardous material rather than hazardous waste for the purposes of transportation if they are being shipped in order to be recycled to a secondary lead smelter which operates under a permit from the U.S. EPA. 40 Code of Federal Regulations part 266.80(a) says that anyone who generates, collects, or transports spent lead-acid batteries can choose to manage the batteries under either the "Universal Waste" rule in 40 CFR part 273 or under 40 CFR part 266, subpart G. Interstate Batteries, Inc. chooses to manage its spent lead-acid batteries under 40 CFR part 266, subpart G.

IATA SHIPPING NAME: Battery, Wet, Non-Spillable

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS

SHIPPING NAME: Battery, Wet, Non-Spillable. The TDG regulations (according to Special Provision 39(2) do not apply to the shipment of a NEW Non-Spillable battery that is not intended for disposal and the battery's terminals are protected from short circuits.

Section 15: REGULATORY INFORMATION

TSCA REGISTRY: Ingredients listed in the TSCA Registry are lead, lead oxide, lead sulfate and sulfuric acid.

CALIFORNIA PROPOSITION 65 WARNING: The state of California has listed lead as a material known to cause cancer or cause reproductive harm (July 9, 2004 California List of Chemicals Known to Cause Cancer or Reproductive Toxicity)

SARA TITLE III: The contents of this product are toxic chemicals that are subject to the reporting requirements of section 302 and 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 355 and 372).

CANADIAN ENVIRONMENTAL PROTECTION ACT: These products are manufactured articles and are exempt from regulation.

CANADIAN WHMIS CLASSIFICATION: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Section 16: OTHER INFORMATION

Disclaimer: This information has been compiled from sources considered to be dependable and is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty (either express or implied) or guarantee is made to the accuracy, reliability or completeness of the information contained herein. This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. It is the user's responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use. We do not accept liability for any loss or damage that may occur, whether direct, indirect, incidental or consequential, from use of this information.

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