

MATERIAL SAFETY DATA SHEET
BATTERY FLUID ACID
 (US, CN, EU Version for International Trade)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Battery Fluid Acid
OTHER PRODUCT NAMES: Battery Electrolyte, UN2796

MANUFACTURER: East Penn Manufacturing Company, Inc.
DIVISION: Deka Road
ADDRESS: Lyon Station, PA 19536 USA

EMERGENCY TELEPHONE NUMBERS: US: CHEMTREC 1-800-424-9300
 CN: CHEMTREC 1-800-424-9300
 Outside US: +1-202-483-7616

NON-EMERGENCY HEALTH/SAFETY INFORMATION: +1-610-682-6361

CHEMICAL FAMILY: Sulfuric acid solution.

PRODUCT USE: Electrolyte for Industrial/Commercial electric storage batteries.

This product is considered a Hazardous Substance, Preparation or Article that is regulated under US-OSHA; CAN-WHMIS; IOSH; ISO; UK-CHIP; or EU Directives (67/548/EEC-Dangerous Substance Labeling, 98/24/EC-Chemical Agents at Work, 99/45/EC-Preparation Labeling, 2001/58/EC-MSDS Content, and 1907/2006/EC-REACH), and an MSDS/SDS is required for this product considering that when used as recommended or intended, or under ordinary conditions, it may present a health and safety exposure or other hazard.

Additional Information


This product may not be compatible with all environments, such as those containing liquid solvents or extreme temperature or pressure. Please request information if considering use under extreme conditions or use beyond current product labeling.

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Health	Environmental	Physical
Acute Toxicity – Not listed (NL) Eye Corrosion – Corrosive Skin Corrosion – Corrosive Skin Sensitization – NL Mutagenicity/Carcinogenicity – NL Reproductive/Developmental – NL Target Organ Toxicity (Repeated) – NL	Aquatic Toxicity – NL	NFPA – Flammable gas, hydrogen (during charging of batteries or contact with finely-divided metals) CN - NL EU - NL

GHS Label: Battery Fluid, Acid

Symbols: C (Corrosive)	
	
Hazard Statements Contact may cause irritation or severe burns. Irritating to eyes, respiratory system, and skin.	Precautionary Statements Keep out of reach of children. Keep containers tightly closed.

EMERGENCY OVERVIEW: Causes severe burns. Acid mist is irritating to eyes, respiratory system, and skin. Prolonged inhalation or ingestion may result in serious damage to health.

POTENTIAL HEALTH EFFECTS:

EYES: Direct contact with liquid may cause severe burns or blindness.
SKIN: Direct contact with battery fluid may cause skin irritation or damaging burns.

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INGESTION: Swallowing this product may cause severe burns to the esophagus and digestive tract and may be harmful or fatal.

INHALATION: Respiratory tract irritation and possible long term effects.

ACUTE HEALTH HAZARDS:

Repeated or prolonged contact may cause skin irritation and/or chemical burns.

CHRONIC HEALTH HAZARDS:

Chronic inhalation of strong mineral acid mists containing sulfuric acid may increase the risk of lung cancer. IARC has listed strong mineral acid mists containing sulfuric acid as a Category 1 carcinogen (carcinogenic in humans).

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Pulmonary edema and bronchitis. Skin diseases may also predispose one to acute and chronic effects of sulfuric acid.

Additional Information

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS (Chemical/Common Names):	CAS No.:	% by Wt:	EC No.:
Sulfuric acid	7664-93-9	30-43 (average: 36.5)	231-639-5

Additional Information

None known.

SECTION 4: FIRST AID MEASURES

EYE CONTACT: An eye wash/emergency shower should be provided wherever battery acid exposure is possible. Flush eyes with large amounts of water for at least 15 minutes. Remove contaminated clothing and seek immediate medical attention if eyes have been exposed directly to acid.

SKIN CONTACT: Flush affected area(s) with large amounts of water using deluge emergency shower, if available, shower for at least 15 minutes. Remove contaminated clothing. If symptoms persist, seek medical attention.

INGESTION: If swallowed, give large amounts of water. Do NOT induce vomiting or aspiration into the lungs may occur and can cause permanent injury or death.

INHALATION: If inhaled, remove person to fresh air. If breathing difficulties develop, obtain medical treatment.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE/UNSUITABLE EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, foam. Trained fire fighters may use water spray under certain conditions.

SPECIAL FIRE FIGHTING PROCEDURES & PROTECTIVE EQUIPMENT:

Sulfuric acid will not burn, but is capable of igniting finely divided combustible materials on contact. Use dry chemical agents to smother combustible materials. Avoid breathing mists and vapors. Use full protective equipment (acid-resistant bunker gear) and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Battery fluid can evolve flammable hydrogen gas when exposed to metals (such as during charging of lead acid batteries) and may increase the fire risk near sparks, excessive heat or open flames. See Section 10 for list of fire by-products.

SPECIFIC HAZARDS IN CASE OF FIRE:

Battery Electrolyte (Sulfuric Acid) is Corrosive.

Additional Information

Firefighting water runoff and dilution water may be toxic and corrosive and may cause adverse environmental impacts.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

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Electrolyte material contains sulfuric acids and is corrosive. Wear appropriate protective clothing. If toxic vapors are produced at unknown concentrations, wear a NIOSH-approved respirator or SCBA.

ENVIRONMENTAL PRECAUTIONS:

Prevent spilled material from entering sewers and waterways.

SPILL CONTAINMENT & CLEANUP METHODS/MATERIALS:

Stop flow of leaking liquid. Small spills: Use clay, sand, or diatomaceous earth. Dike large spills. Neutralize any spilled electrolyte with neutralizing agents, such as soda ash, sodium carbonate/bicarbonate, or lime. Sweep or shovel spilled material and absorbent and place in approved container. Dispose of any non-recyclable materials in accordance with local, state, provincial or federal regulations.

Additional Information

None known.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING AND STORAGE:

- ∞ Keep containers tightly closed when not in use.
- ∞ Do not handle near heat, sparks, or open flames.
- ∞ Protect containers from physical damage to avoid leaks and spills.
- ∞ Wear appropriate PPE.

OTHER PRECAUTIONS (e.g.; Incompatibilities):

Keep away from combustible materials, organic chemicals, reducing substances, metals, strong oxidizers and water.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS/SYSTEM DESIGN INFORMATION:

Use in areas with adequate ventilation.

VENTILATION:

General dilution ventilation is acceptable. Use local exhaust ventilation if occupational exposure limits are exceeded.

RESPIRATORY PROTECTION:

Not required for normal conditions of use. See also special firefighting procedures (Section 5).

EYE PROTECTION:

Wear protective glasses with side shields or goggles. Use a full face shield when pouring acid or when splashing may occur.

SKIN PROTECTION:

Wear acid resistant gloves as a standard procedure to prevent skin contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Acid resistant apron and face shield recommended when adding water or electrolyte to batteries.

EXPOSURE GUIDELINES & LIMITS:

OSHA	Permissible Exposure Limit (PEL/TWA)	Sulfuric acid	1 mg/m ³
ACGIH	2007 Threshold Limit Value (TLV)	Sulfuric acid	0.2 mg/m ³
Quebec	Permissible Exposure Value (PEV)	Sulfuric acid	1 mg/m ³ TWA
			3 mg/m ³ STEV
Ontario	Occupational Exposure Level (OEL)	Sulfuric acid	1 mg/m ³ TWAEV
			3 mg/m ³ STEV
Netherlands	Maximaal Aanvaarde Concentratie (MAC)	Sulfuric acid	1 mg/m ³
		Sulfuric acid	1 mg/m ³
Germany	Maximale Arbeitsplatzkonzentrationen (MAK)	Sulfuric acid	1 mg/m ³ TWA
			2 mg/m ³ STEL

TWA – 8-Hour Time Weighted Average/ STE – Short Term Exposure / mg/m³ – milligrams per cubic meter of air/ NE – Not Established

Additional Information

None known.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Clear, colorless liquid

ODOR:

Odorless