# MATERIAL SAFETY DATA SHEET

## MAINTENANCE FREE • VALVE REGULATED • SEALED LEAD ACID AGM & GEL **NON-SPILLABLE**

SECTION I: **GENERAL INFORMATION** 

Manufacturer's Name:

Crown Battery Mfg. Company

Emergency Number:

800-424-9300

Street Address:

1445 Majestic Drive

International:

703-527-3887

City, State, Zip:

Fremont, Ohio 43420 USA

Phone Number:

419 334 7181

Revision Date: 10/03/2003

# SECTION II: MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS Hazardous Components 1% or greater Carcinogens 0.01 % or greater	PERCENT	OSHA ACGIH OTHER LIMITS CAS NUMBER PEL TLV
METALLIC METAL ALLOY	25.5%	0.05mg/m3 .05 mg/m3 NONE 7439-92-1
LEAD SULFATES	18.2%	0.05mg/m3 .05 mg/m3 NONE 7439-92-1
LEAD OXIDES	18.0%	0.05mg/m3 .05 mg/m3 NONE 7439-92-1
POLYPROPYLENE CASE MTL	6.4%	
SEPARATORS	3.5%	
SULFURIC ACID (H2SQ4)	5.2%	1.0 mg/m3
WATER	19.2%	•

## SECTION III: PHYSICAL / CHEMICAL CHARACTERISTICS

**Boiling Point** 

Approximately 203F

Vapor Density:

Greater than 1

Vapor Pressure Solubility in Water 14 @ 37% @ 80 F

Melting Point:

-35 F to +10.6 F

Specific Gravity

100%

Water Reactive

Yes, Produces Heat

1.245 - 1.295 Battery Electrolyte

Appearance & Odor: Clear Liquid with Sharp Pungent Odor

#### SECTION IV: FIRE AND EXPLOSION HAZARD DATA:

Flash Point: Not Combustible

NFPA WARNING: 1

Auto Ignition Temperature N/A

Flammability Limits in Air % by Volume: N/A

Extinguishing Media: Dry Chemical Carbon Dioxide, Water Fog, Water

Special Fire Fighting Procedures: Sulfuric Acid Fumes, Sulfur Dioxide Gas or Carbon Monoxide may be

released when acid decomposes. Wear NIOSH approved self contained breathing apparatus.

Unusual Hazards: Water applied to sulfuric acid generates heat and causes acid to spatter. Wear full-cover acid resistant clothing. Sulfuric acid reacts violently with metals, nitrates, chlorates, carbides, fulminates, picrates and other organic materials. Reacts with most metals to yield explosive/flammable hydrogen gas. This reaction is intensified when sulfuric acid is diluted with water to form battery electrolyte.

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### MAINTENANCE FREE • VALVE REGULATED • SEALED LEAD ACID AGM & GEL PAGE 2

SECTION V: REACTIVITY DATA

Stability: STABLE NFPA WARNING: 0

CONDITIONS TO AVOID: Charging and over-charging without proper ventilation.

Incompatibility: AVOID COMBUSTIBLES, ORGANIC MATERIALS, AND STRONG REDUCING

AGENTS.

**Hazardous Decomposition Products:** 

SULFUR TRIOXIDE, CARBON MONOXIDE, SULFURIC ACID FUMES AND SULFUR DIOXIDE. Hydrogen, Arsine, Stibene with over charging.

Hazardous Polymerization: Should not occur

#### SECTION VI - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: Inhalation - Yes NPFA WARNING: 3

Skin Yes Ingestion Yes

HEALTH HAZARDS - Acute: Eyes, Skin, Respiratory System & Digestive System

Chronic: Eyes, Skin, Respiratory System & Digestive System

Exposure to Lead Compounds can occur only when product is heated, oxidized or other-wised processed or damaged to create dust vapor or fume. Lead is a systemic poison.

Carcinogenicity - NTP: No

Carcinogenicity - IARC: Yes (Group 2 B \*94-4\*

Carcinogenicity -OSHA: No

<u>Signs and Symptoms of Exposure</u>: Irritation of Exposed Area, Burns, and Respiratory Problems
No possibility of over exposure of lead will occur unless battery is

destroyed.

#### MEDICAL CONDITIONS GENERALLY:

Aggravated by Exposure: Exposure to acid mist may cause lung damage & aggravate pulmonary conditions.

#### **EMERGENCY FIRST AID PROCEDURES**

Seek medical assistance for further treatment, observation and support if necessary.

Eye Contact: Wash with copious quantities of cool water for at least 15 minutes. Skin Contact: Flush area with large amounts of cool water for at least 15 minutes.

Inhalation: Remove to fresh air, if breathing is difficult - give oxygen.

Ingestion: Give milk to drink. DO NOT INDUCE VOMITING, CALL PHYSICIAN.