**Auto-ignition temperature** 

Decomposition

1076 °F (580 °C) Hydrogen.

temperature

Viscosity

Not applicable

Not applicable

## 10. STABILITY AND REACTIVITY

Stability The sealed battery is considered stable.

**Conditions to Avoid** 

Sparks and other sources of ignition; high temperature; over charging.

**Incompatibility (materials** to avoid)

Electrolyte: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers, and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable

hydrogen gas.

Lead compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate,

permanganate, peroxides, nascent hydrogen, and reducing agents.

**Hazardous Decomposition** 

Electrolyte: Sulfur trioxide, carbon monoxide, sulfuric acid mist, sulfur dioxide, hydrogen sulfide.

**Products** 

Lead compounds: Temperatures above the melting point are likely to produce toxic metal fume,

vapor, or dust; contact with strong acid or base or presence of nascent hydrogen may generate

highly toxic arsine gas.

**Hazardous Polymerization** 

Will not occur.

## 11. TOXICOLOGICAL INFORMATION

NOTE: Under normal conditions of use, this product does not present a health hazard. The following information is provided for organic electrolyte and lead exposure that may occur due to container breakage or under extreme conditions such as fire. Organic electrolyte – reacts with moisture/water to produce hydrofluoric acid in trace quantities. Hydrofluoric acid is extremely corrosive and toxic. In severe exposures it acts as a systemic poison and causes severe burns. The reaction may be delayed. Any contact with this material, even minor, requires immediate medical attention.

## **ROUTES AND METHODS OF ENTRY**

Inhalation EXPOSURE IS NOT EXPECTED FOR PRODUCT UNDER NORMAL CONDITIONS OF USE.

> Sulfuric Acid: Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation. Lead Compounds: Inhalation of lead dust or fumes may cause irritation of upper respiratory tract

and lungs.

**Skin Contact** EXPOSURE IS NOT EXPECTED FOR PRODUCT UNDER NORMAL CONDITIONS OF USE.

> Sulfuric Acid: Severe irritation, burns and ulceration. Lead Compounds: Not absorbed through the skin.

**Skin Absorption** EXPOSURE IS NOT EXPECTED FOR PRODUCT UNDER NORMAL CONDITIONS OF USE.

In the event of overcharging or damage to the unit, exposure to organic electrolyte solution/mist is

possible. Extreme exposures to the organic electrolyte can be absorbed through the skin.

**Eye Contact** EXPOSURE IS NOT EXPECTED FOR PRODUCT UNDER NORMAL CONDITIONS OF USE.

Sulfuric Acid: Severe irritation, burns, cornea damage, and blindness.

Lead Compounds: May cause eye irritation.

Ingestion EXPOSURE IS NOT EXPECTED FOR PRODUCT UNDER NORMAL CONDITIONS OF USE.

Sulfuric Acid: May cause severe irritation of mouth, throat, esophagus and stomach.

Lead Compounds: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping. This may lead rapidly to systemic toxicity and must be treated by a physician.

SIGNS AND SYMPTONS OF OVEREXPOSURE

**Acute Effects** EXPOSURE IS NOT EXPECTED FOR PRODUCT UNDER NORMAL CONDITIONS OF USE.

Sulfuric Acid: Severe skin irritation, damage to cornea, upper respiratory irritation.

Lead Compounds: Symptoms of toxicity include headache, fatigue, abdominal pain, loss of

appetite, muscular aches and weakness, sleep disturbances and irritability