

Mitsubishi Gas Chemical Company, INC.

## **M A T E R I A L S A F E D A T A S H E E T**

### Ammonium Persulfate

Date Approved: 01/04/2001

#### **( 1 ) COMPANY IDENTIFICATION**

**Manufacturer:** Mitsubishi Gas Chemical Company, INC.  
Specialty Chemicals Company  
Inorganic Chemicals Division  
Sales and Marketing Department  
MARUNOUCHI Building 5-2, Marunouchi 2-chome,  
Chiyoda-ku, Tokyo  
Phone : 81-3-3283-4758  
Fax : 81-3-3287-2643

**Emergency Telephone Number:** YAMAKITA Factory  
Phone : 81-465-75-1111

#### **( 2 ) MATERIAL IDENTIFICATION**

**Commercial product name:** Ammonium Persulfate

**Components:** >98%

**Formula:**  $(\text{NH}_4)_2\text{S}_2\text{O}_8$

**Molecular weight:** 228.2

**Chemical family:** Inorganic Peroxycompounds

**CAS No.:** 7727-54-0

This material is compliance with the Toxic Substance Control Act( TSCA) .

#### **( 3 ) HAZARDS IDENTIFICATION**

**Emergency overview:** Oxidizer

Decomposes in storage under conditions of moisture (water/ water vapor)and/ or excessive heat causing release of Oxides of Sulfur, Nitrogen and Oxygen that supports combustion. Decomposition could form a high temperature melt.

**Health hazard:** Airborne dust may irritate eyes, skin and mucous membranes upon contact. Continuous contact may produce skin dermatitis. Inhalation of airborne dust at high levels may produce shortness of breath in allergic persons.

#### **( 4 ) FIRST AID MEASURES**

**Eye contact:** May cause eye irritation. In case of contact, immediately flush eyes with an excess of water for at least 15 minutes and call a physician.

**Skin contact:** May cause irritation. In case of contact, wash with soap and water after excessive contact.

**Inhalation:** May cause irritation to the respiratory tract. If inhaled, move to fresh air. If not breathing, give artificial respiration, preferably, mouth-to-mouth. If breathing is difficult, give oxygen and call physician.

**Ingestion:** If swallowed, give victim a glass of water and induce vomiting under the instruction of a physician.

\* Note: Medical conditions aggravated by exposure may be conjunctivitis of eyes, eczema of the skin, dermatitis, asthma and respiratory diseases.

#### **( 5 ) FIRE FIGHTING MEASURES**

**Flash Point (method):** Incombustible

**Extinguishing media:** Water, dry powder, CO<sub>2</sub> and other inert materials.

**Fire fighting instructions:** Evacuate personal to a safe area. If smoke and fumes cannot be avoided, use proximity suit and self-contained breathing apparatus.

#### ( 6 ) ACCIDENTAL RELEASE MEASURES

**Spill/ Leak:** Sweep up, place in drum lined with acid resistant materials and rinse the area with water. Avoid contact with combustible materials.

#### ( 7 ) HANDLING AND STORAGE

**Handling:** Use only with adequate ventilation (general and/ or local) in order to minimize airborne concentrations in workshops. Wear respiratory protection if ventilation is inadequate or not available. Use eye and skin protection. Use clean plastic or stainless steel scoops only.

**Storage condition:** Store in cool dry place and away from flammable materials in tightly sealed containers. Avoid moisture and/ or contamination such as rust.

#### ( 8 ) EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure limits:** Chemical name Ammonium Persulfate

TWA (ACGIH) 0.1 mg/ m<sup>3</sup>

**Engineering controls:** Provide mechanical local general room ventilation to prevent release of dust into the work environment.

**Personal protective equipment:**

**eyes/ face;** Goggles or glasses with side shields are required.

**protective gloves;** Rubber gloves are recommended.

**other protection;** Respirators with filters are recommended. If repeated or prolonged skin contact or contamination is likely, protective gear should be worn.

#### ( 9 ) PHYSICAL AND CHEMICAL PROPERTIES

**Odor:** None

**Appearance:** White crystals

**Vapor pressure:** Not applicable

**Vapor density:** Not applicable

**Boiling point:** Not applicable

**Melting point:** Decomposed at 177.4°

**Solubility in water:** 70g/ 100g. aqua at 20°

**Evaporation rate:** Not applicable

**Specific gravity:** 1.982

#### ( 10 ) STABILITY AND REACTIVITY

**General:** Incombustible, however decomposes when stored under conditions of excessive heat and/ or moisture, generating heat and causing the release of Oxides of Sulfuric Acid and Oxygen, which supports combustion. Reacts with acids, alkalis, heavy metals and reductants to release oxygen.

**Stability:** Stable.

**Hazardous polymerization:** Will not occur.

#### ( 11 ) TOXICOLOGICAL INFORMATION

**Health effects:** Airborne dust may irritate eyes, skin and mucous membranes upon contact.

**Oral- rat:** LD<sub>50</sub> 820mg/ kg

**Intravenous- rabbit:** LD<sub>50</sub> 178mg/ kg

**Intraperitoneal- mouse:** LD<sub>50</sub> 226mg/ kg

**( 12) ECOLOGICAL INFORMATION**

**Fish toxicity:** TLm<sub>48</sub> 700ppm TLm<sub>24</sub> 1,000ppm in killfishes.

**( 13) DISPOSAL CONSIDERATIONS**

**Disposal method:** Dispose as hazardous waste in accordance with local, state and federal regulatory agencies.

**( 14) TRANSPORT INFORMATION**

**Proper shipping name:** Sodium Persulfate

**Primary hazard class:** 5.1( Oxidizer)

**UN Number:** 1444

**Packing group:** III

**( 15) OTHER INFORMATION**

**For more information contact:** Mitsubishi Gas Chemical Company, INC.  
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*This information, which describes our product with regard to possible security requirements, is based on the present state of our knowledge and experience. It is given in good faith. However, no warranty expressed or implied with respect to the quality and properties of our product is made.*