Section 1 - Product and Company Information

Product Name: POTASSIUM PERSULFATE, 99+%, A.C.S. REAGENT
Product Number: 216224
Brand: ALDRICH

Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name: POTASSIUM PEROXODISULFATE
CAS #: 7727-21-1
Formula: K2S2O8
Synonyms: Anthion * Dipotassium persulfate * Potassium per oxydisulfate * Potassium peroxydisulphate
RTECS Number: SE0400000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Oxidizing. Harmful.
Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

HMIS RATING
HEALTH: 3
FLAMMABILITY: 0
REACTIVITY: 3

NFPA RATING
HEALTH: 3
FLAMMABILITY: 0
REACTIVITY: 3

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
DERMAL EXPOSURE
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

EXPLOSION HAZARDS
Container explosion may occur under fire conditions.

EXPLOSION DATA
Dust Potential: This material, like most materials in powder form, is capable of creating a dust explosion.

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions. Contact with other material may cause fire. May accelerate combustion.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area. Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

ENVIRONMENTAL PRECAUTION(S)
Do not allow material to enter drains or water courses.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.
STORAGE
Suitable: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame.

SPECIAL REQUIREMENTS
Moisture sensitive.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Government approved respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

EXPOSURE LIMITS, RTECS
Country   Source   Type   Value
USA       ACGIH    TWA    0.1 MG/M3

EXPOSURE LIMITS
Country   Source   Type   Value
Poland    NDS      N/A  0.1 mg/m3
Poland    NDSCh    N/A  -
Poland    NDSP     N/A  -
Remarks: {OELS ARE VALID FOR DUSTS} PY£Y

Section 9 - Physical/Chemical Properties

Appearance
Color: White
Form: Powder

Property                           Value                       At Temperature or Pressure

Molecular Weight                   270.33 AMU
pH                                 2.5 - 4.5
BP/BP Range                        N/A
MP/MP Range                        N/A 100 °C
Freezing Point                     N/A
Vapor Pressure                     N/A
Vapor Density                      9.3 g/l
Saturated Vapor Conc.              N/A
SG/Density                         2.477 g/cm3
Bulk Density                       N/A
Odor Threshold                     N/A
Volatile%                          0 % 21 °C
VOC Content                        N/A
Water Content                      N/A
Solvent Content                    N/A
Evaporation Rate                   N/A
Viscosity                          N/A
Surface Tension                    N/A
Partition Coefficient              N/A
Decomposition Temp.                N/A
Flash Point                        N/A
Explosion Limits                   N/A
Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions to Avoid: Protect from moisture.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Sulfur oxides, Oxygen.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

SENSITIZATION
Sensitization: May cause allergic respiratory and skin reactions

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral
Rat
802 mg/kg
LD50

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: Potassium persulfate  
UN#: 1492  
Class: 5.1  
Packing Group: Packing Group III  
Hazard Label: Oxidizer  
PIH: Not PIH

IATA  
Proper Shipping Name: Potassium persulfate  
IATA UN Number: 1492  
Hazard Class: 5.1  
Packing Group: III

Section 15 – Regulatory Information

EU DIRECTIVES CLASSIFICATION  
Symbol of Danger: O Xn  
R: 8 22 36/37/38 42/43  
Risk Statements: Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.  
S: 22 24 26 37  
Safety Statements: Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.

US CLASSIFICATION AND LABEL TEXT  
Risk Statements: Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.  
Safety Statements: Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.

UNITED STATES REGULATORY INFORMATION  
SARA LISTED: No  
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION  
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.  
DSL: Yes  
NDSL: No

Section 16 – Other Information

DISCLAIMER  
For R&D use only. Not for drug, household or other uses.

WARRANTY  
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or