

Material Safety Data Sheet

Potassium peroxomonosulfate compound, min. 4.5% active oxygen

ACC# 08845

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium peroxomonosulfate compound, min. 4.5% active oxygen

Catalog Numbers: AC211360000, AC211360010, AC211360050, AC211361000, NC9546864

Synonyms: Oxone, Potassium persulfate triple salt, Potassium peroxymonosulfate sulfate.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
37222-66-5	Potassium peroxymonosulfate sulfate (K5[HSO3(O2)]2(HSO4)(SO4))	100	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white granules.

Danger! Strong oxidizer. Contact with other material may cause a fire. Causes eye and skin burns. Causes digestive and respiratory tract burns. Hygroscopic (absorbs moisture from the air).

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.

Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. May cause allergic skin reactions in sensitive individuals. A similar compound, dipotassium peroxodisulfate, K2S2O8, causes allergic reactions. Human patch tests with the product diluted in water at concentrations up to 150 ppm did not cause allergic skin reaction. The product was not a skin sensitizer in lab animals.

Ingestion: May cause burns to the digestive tract.

Inhalation: Causes chemical burns to the respiratory tract.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn. Strong oxidizer. Contact with other material may cause fire. Decomposes at high temperatures releasing oxygen which may cause an existing fire to burn more vigorously.

Extinguishing Media: Water is a suitable extinguishing media. Do not use carbon dioxide or other gas-filled fire extinguisher; they will have no effect on decomposing persulfates.

Flash Point: Not applicable.

Autoignition Temperature: Not available.

Explosion Limits, Lower: N/A

Upper: N/A

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 1; Special Hazard: OX

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Keep combustibles (wood, paper, oil, etc.,) away from spilled material.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Keep from contact with clothing and other combustible materials. Discard contaminated shoes. Do not breathe dust.

Storage: Do not store near combustible materials. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Refrigeration has been recommended. Avoid storage on wood floors.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Potassium peroxymonosulfate sulfate (K5[HSO3(O2)]2(HSO4)(SO4))	none listed	none listed	none listed
Potassium peroxymonosulfate sulfate (K5[HSO3(O2)][SO3(O2)](HSO4)2)	none listed	none listed	none listed

OSHA Vacated PELs: Potassium peroxymonosulfate sulfate (K5[HSO3(O2)]2(HSO4)(SO4)): No OSHA Vacated PELs are listed for this chemical. Potassium peroxymonosulfate sulfate (K5[HSO3(O2)][SO3(O2)](HSO4)2): No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Granules

Appearance: white

Odor: odorless

pH: 2.0 (3% aq soln)

Vapor Pressure: Negligible.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 50 deg C (decomposes)

Decomposition Temperature: > 50 deg C

Solubility: 250 g/l (20°C)

Specific Gravity/Density: 1.1 - 1.4

Molecular Formula: K5H3S4O18

Molecular Weight: 614.74

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions. Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: Moisture, temperatures above 50°C (122°F).

Incompatibilities with Other Materials: Strong reducing agents, strong bases, combustible materials, Mixing with sodium dichloroisocyanurate or with NaCl can cause release of Cl2 gas. Mixing with cyanides can cause release of HCN gas. Mixing with heavy metal salts such as those of Co, Ni, Cu, or Mn can cause decomposition with release of O2 and heat..

Hazardous Decomposition Products: Oxides of sulfur, oxygen.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 37222-66-5 unlisted.

CAS# 70693-62-8 unlisted.

LD50/LC50:

Not available.

Not available.

Carcinogenicity:

CAS# 37222-66-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 70693-62-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.**Teratogenicity:** No information available.**Reproductive Effects:** No information available.**Mutagenicity:** No information available.**Neurotoxicity:** No information available.**Other Studies:**

Section 12 - Ecological Information

Ecotoxicity: Fish: Rainbow trout: 53 mg/L; 96H; LC50

Water flea Daphnia: 3.5 mg/L; 48H; EC50

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.**RCRA U-Series:** None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	OXIDIZING SOLID, CORROSIVE, N.O.S.	OXIDIZING SOLID, CORROSIVE, N.O.S. (POTASSIUM PEROXOMONOSULFATE)
Hazard Class:	5.1	5.1
UN Number:	UN3085	UN3085
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 37222-66-5 is not listed on the TSCA inventory. It is for research and development use only.

CAS# 70693-62-8 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 37222-66-5: immediate, fire.

Section 313 No chemicals are reportable under Section 313.**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 37222-66-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 70693-62-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives**

Hazard Symbols:

O C

Risk Phrases:

R 34 Causes burns.

R 37 Irritating to respiratory system.

R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 17 Keep away from combustible material.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 37222-66-5: No information available.

CAS# 70693-62-8: 1

Canada - DSL/NDSL

CAS# 70693-62-8 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of C, E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 1/26/1998**Revision #3 Date:** 4/06/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.