

SAFETY DATA SHEET

Creation Date 04-February-2010

Revision Date 19-December-2025

Revision Number 8

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

1. Identification

Product Name Potassium peroxomonosulfate compound, min. 4.5% active oxygen

Cat No. : AC211360000; AC211360010; AC2113650025; AC211360050; AC211361000

CAS-No 70693-62-8

Synonyms Oxone; Potassium monopersulfate; Potassium monopersulfate triple salt

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Importer/Distributor

Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Manufacturer

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification

This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

Acute oral toxicity	Category 4
Acute Inhalation Toxicity	Category 4
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

Label Elements

Signal Word

Danger

Hazard Statements

Harmful if swallowed or if inhaled
Causes severe skin burns and eye damage
May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause respiratory irritation



Precautionary Statements

Prevention

Do not breathe dust/fumes/gas/mist/vapours/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection
Wear respiratory protection

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER/doctor
Rinse mouth
Do NOT induce vomiting
Wash contaminated clothing before reuse

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Harmful to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Potassium peroxymonosulfate sulfate	70693-62-8	>85
Potassium pyrosulfate	7790-62-7	<5
Dipotassium peroxodisulphate	7727-21-1	<5
Potassium hydrogen sulfate	7646-93-7	<5

4. First-aid measures

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Ingestion	Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.
Most important symptoms/effects	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Oxidizing Properties	Oxidizer
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Sulfur oxides. Potassium oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	1	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid
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Environmental Precautions contact with skin, eyes or clothing. Should not be released into the environment. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from clothing and other combustible materials.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Corrosives area. Store under an inert atmosphere. Air sensitive. Incompatible Materials. Strong oxidizing agents. Strong reducing agents. Combustible material.

8. Exposure controls / personal protection

Exposure Guidelines

Component	Alberta	British Columbia	Ontario TWAEV	Quebec
Dipotassium peroxodisulphate	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	-

Component	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Dipotassium peroxodisulphate		TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³

Component	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Dipotassium peroxodisulphate	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	

Component	ACGIH TLV	OSHA PEL	NIOSH
Dipotassium peroxodisulphate 7727-21-1 (<5)	TWA: 0.1 mg/m ³		

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles
Hand Protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Butyl rubber	See manufacturers	-	

recommendations	Splash protection only
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Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Recommended Filter type: Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls

Prevent product from entering drains.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

Appearance

Physical State	Solid
Color	White
Odor	Odorless
Odor Threshold	No information available
<u>Property</u>	<u>Values</u>
Melting Point/Range	No information available
Softening Point	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Flammability (liquid)	Not applicable
Flammability (solid,gas)	No information available
Explosion Limits	No data available

Remarks • Method

Autoignition Temperature	No data available
Decomposition Temperature	>70 °C
pH	2-3
Viscosity	Not applicable
Water Solubility	298 g/L (20°C)
Solubility in other solvents	No information available
Partition Coefficient (n-octanol/water)	
Component	log Pow
Potassium peroxymonosulfate sulfate	0.3
Vapor Pressure	negligible
Density / Specific Gravity	No data available
Bulk Density	No data available
Vapor Density	Not applicable
Particle characteristics	No data available

Method - No information available
Solid

10 g/L aq.sol
Solid

Solid

Other Information

Molecular Formula H3 K5 O18 S4

Molecular Weight 614.78
Oxidizing Properties Oxidizer
Evaporation Rate Not applicable - Solid

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic. Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid Incompatible products. Excess heat. Combustible material. Avoid dust formation. Exposure to moist air or water.

Incompatible Materials Strong oxidizing agents, Strong reducing agents, Combustible material

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO₂), Sulfur oxides, Potassium oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation Not an expected route of exposure.
Ingestion May be harmful if swallowed.
Eyes Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness.
Skin Avoid contact with skin. Causes burns. Skin Corrosion/Irritation.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium peroxymonosulfate sulfate	1204 mg/kg (Rat)	> 11000 mg/kg (Rabbit)	> 14 mg/L (Rat) 1 h
Dipotassium peroxodisulphate	802 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	LC50 > 42.9 mg/L (Rat) 1 h
Potassium hydrogen sulfate	LD50 = 2340 mg/kg (Rat)	-	-

Toxicologically Synergistic Products No information available

(b) skin corrosion/irritation; Category 1 A

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;
Respiratory Category 1
Skin Category 1
 No information available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity;

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Potassium peroxymonosulfate sulfate	70693-62-8	Not listed	Not listed	Not listed	Not listed	Not listed
Potassium pyrosulfate	7790-62-7	Not listed	Not listed	Not listed	Not listed	Not listed
Dipotassium peroxodisulphate	7727-21-1	Not listed	Not listed	Not listed	Not listed	Not listed
Potassium hydrogen sulfate	7646-93-7	Not listed	Not listed	Not listed	Not listed	Not listed

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects, both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Contains a substance which is: Harmful to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium peroxymonosulfate sulfate	Not listed	LC50: > 32 mg/L, 96h semi-static (Brachydanio rerio)	EC50 = 179 mg/L 18 h	Not listed
Dipotassium peroxodisulphate	Not listed	LC50: 100 mg/L/96h (P.reticulata)	Not listed	EC50: 357 mg/L/24H (Daphnia magna)

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Potassium peroxymonosulfate sulfate	0.3

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Technical Shipping Name Potassium peroxymonosulfate sulfate (K5(HSO3(O2))(SO3(O2))(HSO4)2)
Hazard Class 8
Packing Group II

TDG

UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Technical Shipping Name Potassium peroxymonosulfate sulfate (K5(HSO3(O2))(SO3(O2))(HSO4)2)
Hazard Class 8
Packing Group II

IATA

UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Technical Shipping Name Potassium peroxymonosulfate sulfate (K5(HSO3(O2))(SO3(O2))(HSO4)2)
Hazard Class 8
Packing Group II

IMDG/IMO

UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Technical Shipping Name Potassium peroxymonosulfate sulfate (K5(HSO3(O2))(SO3(O2))(HSO4)2)
Hazard Class 8
Packing Group II

15. Regulatory information

International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Potassium peroxymonosulfate sulfate	70693-62-8	X	-	X	ACTIVE	274-778-7	-	-
Potassium pyrosulfate	7790-62-7	X	-	X	ACTIVE	232-216-8	-	-
Dipotassium peroxodisulphate	7727-21-1	X	-	X	ACTIVE	231-781-8	-	-
Potassium hydrogen sulfate	7646-93-7	X	-	X	ACTIVE	231-594-1	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Potassium peroxymonosulfate sulfate	70693-62-8	X	KE-29181	-	-	X	X	X	X
Potassium pyrosulfate	7790-62-7	X	KE-12142	-	-	X	X	X	X
Dipotassium peroxodisulphate	7727-21-1	X	KE-12177	X	X	X	X	X	X
Potassium hydrogen sulfate	7646-93-7	X	KE-32642	X	X	X	X	X	X

Legend:

X - Listed '-' - Not listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Other International Regulations

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Dipotassium peroxodisulphate	-	Use restricted. See entry 75. (see link for restriction details)	-
Potassium hydrogen sulfate	-	Use restricted. See entry 75. (see link for restriction details)	-

REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Potassium peroxymonosulfate sulfate	70693-62-8	Listed	Not applicable	Not applicable	Not applicable
Potassium pyrosulfate	7790-62-7	Not applicable	Not applicable	Not applicable	Not applicable
Dipotassium peroxodisulphate	7727-21-1	Listed	Not applicable	Not applicable	Not applicable
Potassium hydrogen sulfate	7646-93-7	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Potassium peroxymonosulfate sulfate	70693-62-8	Not applicable	Not applicable	Not applicable	Not applicable
Potassium pyrosulfate	7790-62-7	Not applicable	Not applicable	Not applicable	Not applicable
Dipotassium peroxodisulphate	7727-21-1	Not applicable	Not applicable	Not applicable	Not applicable
Potassium hydrogen sulfate	7646-93-7	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By

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Revision Summary

This document has been updated to comply with the requirements of WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the Classification and Labelling of Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS