

Material Safety Data Sheet

Potassium persulfate

ACC# 19540

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium persulfate

Catalog Numbers: AC202010000, AC202010010, AC202010250, AC202015000, AC424180000, AC424180050, AC424185000, S80145, BP180-100, P281-500, P282-100, P282-500

Synonyms: Anthion; Peroxydisulfuric acid, dipotassium salt; Potassium peroxydisulfate; Potassium persulfate; Dipotassium peroxodisulfate.

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
7727-21-1	Potassium peroxydisulfate	>99	231-781-8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless or white solid.

Danger! Strong oxidizer. Contact with other material may cause a fire. Causes eye, skin, and respiratory tract irritation. May cause allergic respiratory and skin reaction. May be harmful if swallowed.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation. May cause transient corneal injury.

Skin: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Ingestion: May be harmful if swallowed.

Inhalation: Dust is irritating to the respiratory tract. May cause allergic respiratory reaction.

Chronic: Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. Repeated exposure may cause allergic respiratory reaction

(asthma).

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

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

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

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. Strong oxidizer. Contact with other material may cause fire. Use water with caution and in flooding amounts.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Contact professional fire-fighters immediately.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; 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: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. 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. Minimize dust generation and accumulation. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation.

Storage: Do not store near combustible materials. Store in a cool, dry place. Keep containers tightly closed. 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 peroxydisulfate	0.1 mg/m ³ TWA (as persulfate) (listed under Persulfates, inorganic, n.o.s.).	none listed	none listed

OSHA Vacated PELs: Potassium peroxydisulfate: 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 gloves to prevent skin exposure.

Clothing: Wear appropriate clothing to prevent skin exposure.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: colorless or white

Odor: odorless

pH: Acidic in water (< 7)

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not applicable.

Boiling Point: Not available.

Freezing/Melting Point: 100 deg C (dec)

Decomposition Temperature: 100 deg C

Solubility: Soluble in water.

Specific Gravity/Density: 2.4770

Molecular Formula: K₂S₂O₈

Molecular Weight: 270.31

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Dust generation.
Incompatibilities with Other Materials: Reducing agents, combustible materials.
Hazardous Decomposition Products: Oxygen, oxides of potassium, sulfur oxides (SOx), including sulfur oxide and sulfur dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 7727-21-1: SE0400000
LD50/LC50:
CAS# 7727-21-1:
Oral, rat: LD50 = 802 mg/kg;

Carcinogenicity:
CAS# 7727-21-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: The occurrence of frequent skin rashes, causing both irritant dermatitis & hypersensitivity reactions, was found in workers producing ammonium & potassium persulfates. The rashes were reduced by the use of protective clothing & gloves & improved dustremoval from the workplace air. Others reported asthma in hairdressers that was induced by exposure to persulfates.

Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

No information available.

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:	POTASSIUM PERSULFATE	POTASSIUM PERSULFATE
Hazard Class:	5.1	5.1
UN Number:	UN1492	UN1492
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 7727-21-1 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 # 7727-21-1: 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 depletors.

This material does not contain any Class 2 Ozone depletors.

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# 7727-21-1 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

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:

XN O

Risk Phrases:

R 22 Harmful if swallowed.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 42/43 May cause sensitization by inhalation and skin contact.
R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 22 Do not breathe dust.
S 24 Avoid contact with skin.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37 Wear suitable gloves.

WGK (Water Danger/Protection)

CAS# 7727-21-1: 1

Canada - DSL/NDSL

CAS# 7727-21-1 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

CAS# 7727-21-1 is not listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 12/12/1997

Revision #8 Date: 2/03/2005

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.