

Material Safety Data Sheet

POTASSIUM PERSULPHATE

Section 1 - Product Identification

Product Name : Potassium Persulphate
CAS No. : 7727-21-1
Synonym : Dipotassium peroxydisulfate
Company Identification : Tradeasia International Pte. Limited
Address :
133 Cecil Street # 12-03 Keck Seng Tower, Singapore
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Section 2 – Composition/Information on Ingredients

Substances

Name of substance	Potassium Persulphate
Identifiers	
CAS No	7727-21-1
Molecular formula	K ₂ O ₈ S ₂
Molar Mass	270.32 g/mol

Section 3 – Hazardous Ingredients & Occupational Exposure Limits

Classification of the substances or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 3), H272
Acute toxicity, Oral (Category 4), H302
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Respiratory sensitisation (Category 1), H334
Skin sensitisation (Category 1), H317
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Label Elements

GHS Label elements, including precautionary statements

Hazard Pictogram(s):



Signal Word: Danger

Hazard Statements:

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Precautionary Statements

P210 Keep away from heat.

P220 Keep/Store away from clothing/ combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P285 In case of inadequate ventilation wear respiratory protection.

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplemental first aid instructions on this label). P330 Rinse mouth.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements none

Hazards Not Otherwise Classified: None known

Section 4 – First-Aid Measures

General: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

Notes to physician: Treat symptomatically.

Section 5 – Employee Protection

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream.

Special hazards arising from the substance or mixture:

Fire hazard : May intensify fire; oxidizer.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Advice for firefighters:

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Fight fire remotely due to the risk of explosion.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Further information: No data available

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions: Do not let product enter drains.

Methods and Materials for Containment and Cleaning up: Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations,. Keep in suitable, closed containers for disposal.

Section 7 – Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Section 8 – Exposure Controls/Personal Protection

Exposure Limits/Guidelines:

ACGIH TLV: TWA: 0.1 mg/m³

Engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment

Eye and Face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and Body protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Wear complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state : Solid

Appearance : Crystalline powder.

Color : white

Odor : None.

Odor threshold : No data available

pH : No data available

Melting point : 100 °C

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : No data available

Explosion limits : No data available

Explosive properties : No data available

Oxidizing properties : May intensify fire; oxidizer.

Vapor pressure : No data available

Relative density : No data available

Relative vapor density at 20 °C : No data available

Specific gravity / density : 2.58 g/cm³

Molecular mass : 270.32 g/mol

Solubility : Soluble in water. Water: 47 g/l

Log Pow : No data available

Log Kow : No data available

Auto-ignition temperature : No data available

Decomposition temperature : 100 °C

Viscosity : No data available

Other data

No data available

Section 10 – Stability and Reactivity

Reactivity: No data available

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

Possibility of hazardous reaction: No data available

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, Strong bases, Alcohols, Organic materials, Powdered metals, Combustible material

Hazardous Decomposition Products: Hazardous polymerization does not occur.

Hazardous Polymerization: No data available

Section 11 – Toxicological Information

Acute toxicity: Oral: Harmful if swallowed.

Skin corrosion/irritation: : Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Carcinogenicity: Shall not be classified as carcinogenic.

Reproductive toxicity: Shall not be classified as a reproductive toxicant.

Specific target organ toxicity following single exposure: May cause respiratory irritation.

Specific target organ toxicity following repeated exposure: Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard: Shall not be classified as presenting an aspiration hazard.

Information on likely routes of exposure

Ingestion: Swallowing a small quantity of this material will result in serious health hazard.

Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Eye contact: Causes serious eye irritation.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

Additional Information: No data available

Section 12 – Ecological Information

Toxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: No data available

Other adverse effects: No data available

Section 13 – Disposal Considerations

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging: Dispose of as unused product.

Section 14 – Transport Information

In accordance with DOT/IMDG/IATA/ADR

Proper Shipping Name: Potassium persulfate

UN: UN1492

Hazard Class: 5.1

Packing Group: III

Additional Information:

Marine Pollutant: No

Section 15 – Regulatory Information

1. US Federal regulations

Listed on the United States TSCA (Toxic Substances Control Act) inventory
 SARA Section 311/312 Hazard Classes: Immediate (acute) health hazard, Fire hazard

2. International regulations

CANADA

Listed on the Canadian DSL (Domestic Substances List)

3. National regulations

No data available

4. US State regulations

POTASSIUM PERSULPHATE

State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
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Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

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 way shall Tradeasia International Pte. Ltd. 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 Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.