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Material Safety Data Sheet

SODIUM PEROXIDE

Section 1 - Product Identification

Product Name : Sodium Peroxide
CAS No. : 1313-60-6
Synonym : Disodium dioxide; Disodium peroxide; Sodium binoxide; Sodium dioxide; Solozone
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	Sodium Peroxide
Identifiers	
CAS No	1313-60-6
Molecular formula	Na2O2
Molar Mass	77.98 g/mol

Section 3 – Hazardous Ingredients & Occupational Exposure Limits

Classification of the substances or mixture

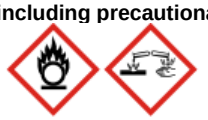
Classification according to Regulation (EC) No 1272/2008

Oxidizing solids (Category 1), H271
Skin corrosion (Sub-category 1A), H314

Label Elements

GHS Label elements, including precautionary statements

Hazard Pictogram(s):



Signal Word: Danger

Hazard Statements:

H271 May cause fire or explosion; strong oxidiser
H314 Causes severe skin burns and eye damage

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P260 Do not breathe dusts or mists.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

Hazards Not Otherwise Classified: None known

Section 4 – First-Aid Measures

General: Take off immediately all contaminated clothing. Self-protection of the first aider.
Inhalation: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
Eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.
Skin Contact: After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.
Ingestion: Rinse mouth immediately and drink plenty of water. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects). Call a physician immediately.
Notes to physician: No specific treatment. Treat symptomatically.

Section 5 – Employee Protection

Suitable extinguishing media: Use extinguishing media such as dry chemical, pulverized dolomite or sand.
Unsuitable extinguishing media: Do not use water jet, carbon dioxide, halocarbon or wet chemical extinguishers.
Special hazards arising from the substance or mixture: Strong oxidizer! Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Product is not combustible; however it is a strong oxidizer and its heat of reaction with reducing agents or combustible materials may cause ignition. Releases oxygen upon decomposition, which enhances combustion.
Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
Explosion hazards: Contact with combustible, organic or oxidizable materials may cause extremely violent combustion and explosion. May react explosively in contact with large amounts of water.
Advice for firefighters: Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible auto ignition or explosion when exposed to extreme heat. Water contaminated by this material must be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.
Further information: Use water spray to cool unopened containers.

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Avoid dust generation. Do not inhale dust. Ventilate the area. Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8. Remove all sources of ignition.
Environmental Precautions: Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways.
Methods and Materials for Containment and Cleaning up: Clean up spills immediately. Cover drains and contain spill. Minimize dust generation during clean-up. Carefully sweep, vacuum (with HEPA filter) or shovel up material and place into an approved container for proper disposal Do not use combustible materials such as paper towels or straw brooms to clean up spills. Do not save material for reclamation. Cover with double volume of sand-soda ash mixture (90% - 10%). Mix thoroughly and break up any lumps. An alternative method is to use a plastic scoop to slowly add the mixture to a large volume of water with stirring. Neutralize with sulfuric acid. When settled decant the sulfate solution into the drain with excess water. Do NOT allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches which lead to waterways. Dispose of waste via a licensed waste disposal contractor.

Section 7 – Handling and Storage

Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8. Minimize dust generation. Do not get in eyes or on skin or clothing. Do not breathe dust. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator.

Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated area, away from combustible and incompatible materials, food and drink. Keep away from reducing agents. Keep away from heat and ignition sources. Avoid storage on wood floors. Transfer only to approved containers having correct labeling. Protect containers against physical damage. Keep containers tightly closed and hermetically sealed or under a nitrogen blanked to keep moisture out. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Do not reuse empty containers as they may retain product residues (solids, dust). Ventilate closed areas. Avoid skin contact. Do not take internally. Keep locked up and out of reach of children.

Section 8 – Exposure Controls/Personal Protection (later)

Exposure Limits/Guidelines:

No data available

Engineering controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Personal Protective Equipment

Eye/face protection: Wear protective goggles or safety glasses with non-perforated side shields and a face shield.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection: Wear an approved filter type dust respirator when handling this product. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Powder
Appearance: white to pale yellow - granular
Odor: odorless
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate:Not available.
Viscosity: Not available.
Boiling Point: 657 deg C (dec)
Freezing/Melting Point:460 deg C (dec)
Decomposition Temperature: Not available.
Solubility: Reacts.
Specific Gravity/Density:2.805

Molecular Formula:Na2O3
Molecular Weight:77.98
Other data
No data available

Section 10 – Stability and Reactivity

Reactivity: Reacts violently and explosively with water.
Chemical Stability: Stable under normal temperatures and pressures. Substance readily absorbs carbon dioxide from air. May discolor on exposure to air.
Possibility of hazardous reaction:
Danger of explosion: Ammonium compounds, Antimony, Arsenic, Boron, Carbide, Acetic anhydride, Carbon, Metals, Organic substances, Phosphorus, Phosphorus trichloride, Sulphur
Risk of ignition: Alcohols, Aniline, Benzene, Combustible materials, Iron, Acetic acid, Ethanol, Ether, Methanol, Metal powder, Carbon disulfide, Hydrogen sulphide (H_2S), Water, Tin
Exothermic reaction with: Aldehydes, Acids
Conditions to Avoid: Heat, flames, sources of ignition and contact with incompatible and combustible materials. Avoid dust generation.
Incompatible Materials: Materials already mentioned in Possibility of hazardous reaction
Hazardous Decomposition Products: Thermal decomposition products include oxygen, toxic oxides of sodium and metallic sodium fumes.
Hazardous polymerization: No data available

Section 11 – Toxicological Information

Acute toxicity:
Shall not be classified as acutely toxic.
Skin corrosion/irritation: Causes severe skin burns.
Serious eye damage/irritation: Causes serious eye damage.
Carcinogenicity: Shall not be classified as carcinogenic.
Reproductive toxicity: Shall not be classified as a reproductive toxicant.
Specific target organ toxicity following single exposure: Shall not be classified as a specific target organ toxicant (single exposure).
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: Danger of perforation of the esophagus and the stomach (strong corrosive effects)
Inhalation: Breathing difficulties, corrosive to the respiratory tract
Skin contact: Causes severe burns, causes poorly healing wounds
Eye contact: Causes burns, Causes serious eye damage, risk of blindness

Interaction with Other Chemicals Which Enhance Toxicity: None known.

Additional Information: Other adverse effects: Circulatory collapse, Diarrhea

Section 12 – Ecological Information

Toxicity: Shall not be classified as hazardous to the aquatic environment.
Persistence and degradability: The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.
Other adverse effects: No data available

Section 13 – Disposal Considerations

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Hazardous waste: The classification of this product may meet the criteria for a hazardous waste.

Section 14 – Transport Information

In accordance with DOT/IMDG/IATA/ADR
Proper shipping name: Sodium peroxide
Hazard Class: 5.1
UN: UN1504
Packing group: I

Additional Information:
DOT - Packaging Authorization: Non-Bulk: 49 CFR 173.211; Bulk: None, Packaging Exceptions: None
IMDG - EMS Number: F-G, S-Q
IATA - Quantity Limitations: 49 CFR 173.27 and 175.75 - Cargo Aircraft Only: 15 kg; Passenger Aircraft: Forbidden
ADR - Marine Pollutant: No

Section 15 – Regulatory Information

1. US Federal regulations

TSCA: CAS# 1313-60-6 is listed on the TSCA inventory.
SARA Codes: CAS # 1313-60-6: acute, flammable, reactive.
Section 313: No chemicals are reportable under Section 313.
OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.
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.

2. International regulations

CANADA

WHMIS Hazard Symbol and Classification: Not a controlled substance
Canadian Controlled Products Regulations (CPR): Products Regulations, and the MSDS contains all the information required by the Controlled Products Regulations. This product has been classified in accordance with the hazard criteria of the Controlled.
Canadian Ingredient Disclosure List (IDL): None of the substances in this product are listed on the IDL.
Canadian National Pollutant Release Inventory (NPRI): None of the substances in this product are listed on the NPRI.

EUROPE
Labeling (67/548/EEC or 1999/45/EC): O –Oxidizing, C – Corrosive
Risk Phrases: R35 - Causes severe burns. S27 - Take off immediately all contaminated clothing.
Safety Phrases: S1/2 - Keep locked up and out of the reach of children. S8 - Keep container dry. S39 - Wear eye and face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show SDS whenever possible). R8 - Contact with combustible material may cause fire.

WGK, Germany (Water danger/protection): 1

3. National regulations

No data available

4. US State regulations

SODIUM PEROXIDE

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

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.