

# Mallinckrodt

## Material Safety Data

Emergency Phone Number: 314-982-5000

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 43061.

### POTASSIUM PERCHLORATE

#### PRODUCT IDENTIFICATION:

Synonyms: Perchloric acid, potassium salt; Potassium hyperchloride

Formula CAS No.: 7778-74-7

Molecular Weight: 138.55

Chemical Formula:  $KClO_4$

Hazardous Ingredients: Not applicable.

#### PRECAUTIONARY MEASURES

**DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. MAY BE HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION.**

Keep from contact with clothing and other combustible materials.

Store in a tightly closed container.

Remove and wash contaminated clothing promptly.

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

#### EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician. SEE SECTION 5.

DOT Hazard Class: Oxidizer

#### SECTION 1 Physical Data

Appearance: White powder

Odor: Odorless.

Solubility: 1.5 g in 100 g of water.

Boiling Point: Not applicable.

Melting Point: Decomposes ca. 400°C (752°F)

Density: 2.52

Vapor Density (Air = 1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

#### SECTION 2 Fire and Explosion Information

##### **Fire:**

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Contact with oxidizable substances may cause extremely violent combustion. Liberates toxic gases when involved in a fire.

##### **Explosion:**

Strong oxidants may explode when shocked, or if exposed to heat, flame, or friction. Also may act as initiation source for dust or vapor explosions. Containers may explode when involved in a fire.

##### **Fire Extinguishing Media:**

Flood with large amounts of water.

##### **Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

#### SECTION 3 Reactivity Data

##### **Stability:**

Stable under ordinary conditions of use and storage.

##### **Hazardous Decomposition Products:**

Chlorine and oxides of potassium.

##### **Hazardous Polymerization:**

This substance does not polymerize.

##### **Incompatibilities:**

Aluminum, magnesium, charcoal, fluorine, sulfur, many combustible substances and reducing agents.

#### SECTION 4 Leak/Spill Disposal Information

Clean-up personnel should wear protective clothing and respiratory equipment suitable for flammable and fire-promoting materials. Scoop up large spills for recovery or disposal in a RCRA waste disposal facility. Avoid dusting. Spills can be diked and covered with ferrous sulfate, sodium sulfite or sodium thiosulfate. Moisten and acidify, if necessary, to promote the reduction reaction. Neutralize slurry with soda ash. Neutralized waste may be transferred to a closed, preferably metal, container and sent to an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 2 Other: Oxidizer

Effective Date: 08-15-85

POTASSIUM PERCHLORATE

**SECTION 5 Health Hazard Information**

**A. EXPOSURE / HEALTH EFFECTS**

**Inhalation:**

Irritant, especially as fine dust. Can cause coughing, sneezing, breathing difficulty.

**Ingestion:**

Irritant to mucous membrane; causes gastro-intestinal upset. Toxicity reportedly due to strong oxidant effect and possible destruction of red blood cells.

**Skin Contact:**

Irritant. May cause burns or soreness, especially on moist skin.

**Eye Contact:**

Irritant. May cause reddening, tearing.

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of the substance.

**B. FIRST AID**

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:**

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Never give anything by mouth to an unconscious person.

**Skin Exposure:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician immediately.

**Eye Exposure:**

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**C. TOXICITY DATA** (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure. Reproductive effects cited.

**SECTION 6 Occupational Control Measures**

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

**Personal Respirators: (NIOSH Approved)**

For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

**SECTION 7 Storage and Special Information**

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Isolate from flammable materials. Do not store on wooden floors.

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