



Safety Data Sheet (SDS / MSDS)

Potassium Perchlorate KClO₄

Section 1: Chemical Product and Company Identification

Product Name: Potassium Perchlorate
CAS Number: 7778-74-7
EEINECS / EC Number: 231-912-9
UN Number: 1489
Synonym: Potassium Chlorate(VII), Perchloric Acid,
Potassium Salt, Peroidin
Chemical Name: Potassium Perchlorate
Chemical Formula: KClO₄

Section 2: Data Composition

Name: Potassium Perchlorate
Formula: KClO₄
CAS Number: 7778-74-7
% By Weight: 100%

Toxicological Data on Compositions: Potassium perchlorate LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of inhalation. Slightly hazardous in case of skin contact (corrosive). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation: Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable. Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable. Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing etc). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dyke if needed. Call for assistance on disposal.

Section 7: Handling and Storage

Precautions: Keep locked up Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material Keep away from direct sunlight or strong incandescent light. Do not breathe dust. Never add water to this product. Avoid shock and friction. In case of insufficient ventilation, wear suitable respiratory equipment If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes

Storage: This product should be stored away from oxidizing materials and strong bases.

Section 8: Exposure Controls and Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odour: Odourless. **Taste:** Not available.

Molecular Weight: 138.55 g/mole **Colour:** White

pH (1% soln/water): Not available. **Boiling Point:** Not available.

Melting Point: Decomposes. (400°C or 752°F) **Critical Temperature:** Not available.

Specific Gravity: 2.52 (Water = 1) **Vapour Pressure:** Not applicable. **Vapour Density:** Not available. **Volatility:** Not available.

Odour Threshold: Not available.

Water/Oil Dist. Coeff.: Not available. **Ionicity (in Water):** Not available.

Dispersion Properties: See solubility in water.

Solubility: Partially soluble in cold water, hot water.

Section 10: Stability and Reactivity

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances:

May become self-reactive under conditions of shock or increase in temperature or pressure.

Corrosivity: Non-corrosive in presence of glass. **Special Remarks on Reactivity:** Not available.

Special Remarks on Corrosivity: Not available. Polymerization: No.

Section 11: Toxicological Data

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans: The substance is toxic to lungs, mucous membranes.

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of inhalation. Slightly hazardous in case of skin contact (corrosive).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Data

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with local environmental control regulations.

Section 14: Transport

DOT Classification: CLASS 5.1: Oxidizing material.

Identification: Potassium perchlorate : UN1489 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Information

References: Not available.

Other Special Considerations: Not available.

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