

MATERIAL SAFETY DATA SHEET

REV. 4 Issued: May 5, 2009

1. Chemical Product And Company Information

Chemical Name: Potassium Carbonate
Synonyms/Trade Names: Carbonic Acid, Dipotassium Salt; Potash; Potassium Carbonate, Dense Granular
Chemical Family: Inorganic potassium compound, inorganic carbonate
Formula: K_2CO_3
Molecular Weight: 138.21
CAS No.: 584-08-7
Uses:

Manufacturer & Supplier:
ERCO Worldwide, a division of Superior Plus LP
302 The East Mall, Ste. 200
Toronto, Ontario Canada M9B 6C7
(416) 239-7111

ERCO Worldwide (USA) Inc.
101 Highway 73 South
Nekoosa, Wisconsin 54457
(715) 887-4000

Transportation Emergency Telephone Numbers :
Not Regulated

Emergency Information:

Call toll-free 24 hours a day:

866-855-6947

Canadian WHMIS Classification (s):



D2B - Other Toxic Effects



E - Corrosive

2. Composition / Information On Ingredients

Name:
Potassium Carbonate

Conc. % By Weight
100

CAS No.
584-08-7

3. Hazard Identification

Emergency Overview:

White, free flowing, hygroscopic, odorless granules.

WARNING! Causes skin, eye, respiratory and digestive tract irritation. Harmful if swallowed.

Routes of Entry:

Inhalation, Skin Contact, Eye Contact, Ingestion

Symptoms of Exposure:

Inhalation:

Irritation of the nose and throat with sneezing and coughing may occur, based on pH.

Skin Contact:

Dust and concentrated solutions may be mild to moderate skin irritants, based on alkalinity. Sodium carbonate, a closely related chemical is a mild skin irritant.

Eye Contact:

The dust and concentrated solutions are probably moderate to severe eye irritants, based on alkalinity and comparison to sodium carbonate, which is a severe eye irritant. The dust will also cause irritation as a "foreign substance". Some tearing, blinking and mild, temporary pain may occur as the solid material is rinsed from the eye by tears. There is no human information available.

Ingestion:

Potassium carbonate is low in oral toxicity, based on animal information. Ingestion of very large amounts may cause stomach cramps, vomiting, and diarrhea. There is no human information available. Ingestion is not a typical route of occupational exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Preexisting disorders of the following organs or systems which may be aggravated by exposure to this material (or a component) include: skin, respiratory system (including asthma and other breathing disorders), gastrointestinal system.

4. First Aid Measures

Skin:

Brush off excess chemical. Wash exposed skin well with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse. If symptoms develop, get medical attention.

Eyes:

Hold the eyelids apart and flush the eye gently with a large amount of water for at least 20 minutes. Get medical attention.

Inhalation:

If symptoms develop, remove individual to fresh air and get medical attention immediately. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.

Ingestion:

Have person drink a glass of water immediately if able to swallow. Get immediate medical attention. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN

Never attempt to neutralize potassium carbonate with chemicals.
Development of pulmonary edema may be delayed 48-72 hours.
See Section 11 for Toxicological Information.

5. Fire-Fighting Measures

Conditions Of Flammability:

Material will not burn. Firefighters should wear self-contained, positive-pressure breathing apparatus and avoid skin contact.

Means To Extinguish:

Not Applicable - Choose extinguishing media suitable for surrounding materials.

Hazardous Combustion Products:

Not combustible

Flash Point & Method: Not applicable (TCC)
Upper Flammability Limit: Not applicable
Lower Flammability Limit: Not applicable
Auto-Ignition Temperature: Not applicable
Mechanical Impact Sensitivity: Not applicable
Static Discharge Sensitivity: Not applicable

6. Accidental Release Measures

Leak Or Spill Procedures:

Confine spill. Shovel into closed containers. Flush spill area with water. Dispose of wash water in accordance with applicable Federal, state, and local regulations.

For all transportation accidents, call CHEMTREC at 800-424-9300.

Waste Control Procedures:

Consult appropriate Federal, State/Provincial and local regulatory authorities to ascertain disposal procedures.

7. Handling Storage

Handling Procedures And Equipment:

Avoid contact with eyes, skin and clothing. Do not taste or swallow. Avoid breathing dust. Use only with adequate ventilation. Do not eat, drink, or smoke in the work area. Wash thoroughly after handling. Any protective clothing or shoes which become contaminated with potassium carbonate should be removed and thoroughly laundered and cleaned before wearing again. Discard any footwear that has been contaminated on the inner surface.

Carefully monitor handling, use and storage to avoid spills and leaks. Follow protective controls set forth in Section 8 when handling this product.

Water must always be readily accessible whenever potassium carbonate is loaded, unloaded, stored or used.

Storage:

Store in labeled, sealed containers in a cool, dry, well-ventilated area. Keep containers closed and dry. Do not remove or deface label. Material is hygroscopic and will absorb moisture if exposed to humidity.

INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT

Avoid contact with lime (CaO). This product will react with lime in the presence of water to produce corrosive caustic potash (KOH)

8. Exposures Controls / Personal Protection

Protective Equipment:**EYE AND FACE PROTECTION**

Wear chemical goggles. A face shield should be worn in addition to goggles where splashing or spraying is possible.

SKIN PROTECTION

Wear chemical resistant clothing, boots, and gloves, which are made of neoprene, PVC, or rubber. Always place pants legs over boots.

RESPIRATORY PROTECTION

Where airborne potassium carbonate dust may be present, a NIOSH/MSHA approved high-efficiency particulate filter with full face piece or self-contained breathing apparatus should be used. Follow any applicable respirator use standards and regulations.

Engineering Controls:**VENTILATION**

Local exhaust ventilation should be used where airborne potassium carbonate dust may be present. Otherwise, use general exhaust ventilation.

GENERAL

Safety shower and eyewash station must be provided in the immediate work area. Portable or temporary systems should be provided for remote areas. Protective equipment and clothing should be selected, used, and maintained according to applicable standards and regulations. For further information, contact the clothing or equipment manufacturer.

9. Physical And Chemical Properties

State: Solid

Odour: Odorless

Odour Threshold: Not applicable

Boiling Point: Decomposes

Melting Point: 891 °C

Freezing Point: not applicable

pH: 11.6 @ 25 °C (3% Solution)

Coefficient Of Water/Oil Distribution: No data

Appearance: White, hygroscopic, granules

Specific Gravity: 2.428 @ 19 °C

Vapour Pressure: Not applicable

Vapour Density: Not applicable

Evaporation Rate: Not applicable

Solubility In Water: Very soluble (52.5% or 110.5g in 100g H₂O at 20°C)
Bulk Density: 81-83 lb/ft³ or
1,300 - 1,330 kg/m³

10. Stability And Reactivity

Chemical Stability:

Stable

Reactivity Conditions:

Avoid contact with lime (CaO). Potassium carbonate and lime will react in the presence of water to form caustic potash. Acids will cause carbon dioxide evolution with foaming and heat evolution.

Incompatible Substances:

Chlorine trifluoride; Magnesium; Acids.

Hazardous Decomposition Products:

Potassium oxide (K₂O)

11. Toxicological Information

Skin Contact: Causes severe skin irritation with redness, an itching or burning feeling, and/or swelling of the skin. May cause skin damage.

Skin Absorption: No information available

Eye Contact: Causes severe eye irritation with tearing, redness, or a stinging or burning feeling. May cause swelling of the eyes with blurred vision. Can injure eye tissue. Effects may become more serious with repeated or prolonged contact.

Inhalation: This material can produce dust during processing. Breathing high concentrations may be harmful. Breathing this material causes irritation of the throat and lungs with cough and difficult breathing.

Ingestion: Swallowing this material may be harmful or cause death. Harmful effects include burns and permanent damage to the digestive tract, including the mouth, throat, stomach and intestines. Symptoms may include severe abdominal pain and vomiting of blood. Blood loss through damaged tissue may lead to low blood pressure and shock.

LD₅₀: 1870 mg/kg (rat)

LC₅₀: 2570 mg/ kg (mouse)

Exposure Limits: No occupational exposure levels have been established for potassium carbonate. However, the Occupational Safety and Health Administration (OSHA) has established a PEL-TWA of 15 mg/m³, total particulate, and 5 mg/m³, respirable particulate, for Particulates Not Otherwise Classified (PNOCs.)

Irritancy: See Skin / Eye Contact

Sensitization: No information available

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

Teratogenicity & Mutagenicity: No information available

Reproductive Toxicology: Based on available data, it is not known whether exposure of the mother to this material can cause harm to the fetus.

Toxicological Synergism: No information available

12. Ecological Information

Ecological Information:

No data available

Biodegradability:

Not biodegradable

Aquatic Toxicity:

No data available

13. Disposal Considerations

Disposal Considerations:

If this product becomes a waste, it may meet the criteria of a hazardous waste as defined under 40 CFR 261. Concentrated solutions of potassium carbonate having a pH of 12.5 or greater would have the following EPA hazardous waste designation: D002. (40 CFR 261.22)

14. Transportation Information

Shipping Name (TDGR)	UN Number	Hazard Class	Packing Group
Not Regulated (TDGR/DOT)	N/A	N/A	N/A

15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR .

Safety:

CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CLASSIFICATION

WHMIS Classification applicable to this product:

D-2B (Toxic Material) based on skin and eye irritation effects.

E- Corrosive material

U.S. Regulatory Rules

Ingredients Potassium Carbonate

CERCLA/SARA - Section 302: Not listed

SARA (311, 312) Hazard Class: not listed

CERCLA/SARA - Section 313: not listed

OSHA: Not a Hazardous Substance under 29 CFR Section 1910, Subpart Z.

California Proposition 65: Not Listed.

MA Right to Know List: Not Listed.

New Jersey Right-to-Know List: Not Listed.

Pennsylvania Right to Know List: Not Listed.

Environmental:

- US Federal Regulations Reportable Quantity (RQ) is not applicable
- The components of this product are listed on the Toxic Substances Control Act (TSCA) inventory
- Superfund Amendments and Reauthorization Act (SARA) Title III Hazard Category - Immediate Health
- This substance is listed in the Canadian Domestic Substances List (DSL)

Transportation:

Refer to Section 14.

16. Other Information

Prepared By:

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Summary of Changes Made in this Revision :

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