

## Safety Data Sheet

### Section 1: Identification

**Product Name:** POTASSIUM CARBONATE (ANHYDROUS)

**Trade Name:** Potassium Carbonate Extra Fine; Potassium Carbonate Glass; Potassium Carbonate Dense Granular; Potassium Carbonate Fine

**Synonyms:** Pearlash, Potash, PotCarb

**Product Use:** For further manufacturing of feed and food.

**Company Identification:**

Origination Inc.

1300 McKnight Road North

Maplewood, MN 55119

**For information, call:** 1-800-625-6079

**Emergency Number:** 1-800-625-6079

**For CHEMTREC assistance, call:** 1-800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2: Hazard(s) Identification

**OSHA Regulatory Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Emergency Overview:**

**Color:** White

**Physical State:** Solid

**Appearance:** Free-flowing, Granular

**Signal Word:** WARNING

**Major Health Hazards:** Causes serious eye irritation. Causes skin irritation. May cause respiratory tract irritation. Harmful if inhaled or swallowed.

**Aquatic Toxicity:** Harmful to aquatic life. May increase pH of waterways and adversely affect aquatic life.

**Precautionary Statements:** Avoid contact with skin and eyes. Wash skin and contaminated clothing thoroughly after handling. Wear protective gloves, protective clothing, eye, and face protection. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

**GHS Classification:**

<b>GHS: Contact Hazard - Skin:</b>	Category 2 - Causes skin irritation
<b>GHS: Contact Hazard - Eye:</b>	Category 2A - Causes serious eye irritation
<b>GHS: Sensitization Hazard:</b>	This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction
<b>GHS: Acute Toxicity - Inhalation:</b>	Category 4 - Harmful if inhaled

# Potassium Carbonate



<b>GHS: Acute Toxicity - Oral:</b>	category 4 - harmful if swallowed
<b>GHS: acute toxicity - Dermal:</b>	Not classified as acutely toxic for dermal exposure
<b>GHS: target organ Toxicity (single exposure):</b>	Category 3 - may cause respiratory tract irritation
<b>GHS: carcinogenicity:</b>	This product is not classified as a carcinogen by NTP, IARC or OSHA.
<b>GHS: Hazardous To Aquatic Environment – Acute Hazard:</b>	Category 3 - harmful to aquatic life

**Unknown Acute Toxicity:** Not applicable. This product was tested as a whole. This information only pertains to untested mixtures.

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**GHS Symbol:** Exclamation mark



**GHS Signal Word:** **WARNING**

**GHS HAZARD STATEMENTS:**

**GHS - Health Hazard Statement(s)**

- Causes serious eye irritation
- Causes skin irritation
- Harmful if swallowed
- Harmful if inhaled
- May cause respiratory irritation

**GHS - Precautionary Statement(s) - Prevention**

- Wear protective gloves, protective clothing, eye, and face protection
- Wash thoroughly after handling
- Avoid breathing dust
- Use only outdoors or in a well-ventilated area
- Do not eat, drink or smoke when using this product

**GHS - Precautionary Statement(s) - Response**

**IF IN EYES:** 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

**Specific Treatment (See First Aid Information on Product Label and/or Section 4 of the SDS) If on Skin:** Wash with plenty of water

**If Skin Irritation Occurs:** Get medical advice/attention

Take off contaminated clothing and wash it before reuse

**If Inhaled:** Remove person to fresh air and keep comfortable for breathing

Call a poison center or doctor/physician if you feel unwell

**If Swallowed:** call a poison center or doctor/physician if you feel unwell

# Potassium Carbonate



Rinse mouth

**GHS - Precautionary Statement(s) – Storage:** Store in a well-ventilated place. Keep container tightly closed  
Store locked up

**GHS - Precautionary Statement(s) – Disposal:** Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations

**Hazards Not Otherwise Classified (HNOC):** None Known

## Section 3: Composition / Information on Ingredients

**Synonyms:** Pearlash, Potash, PotCarb

Component	Percent [%]	CAS Number
Potassium Carbonate	98.5 - 100	584-08-7
Water	0 - 1.0	7732-18-5
Impurities	0 - 0.5	NOT ASSIGNED

## Section 4: First Aid Measures

**Inhalation:** If inhaled and adverse effects occur, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin Contact:** Immediately brush off excess chemical and flush contaminated areas with plenty of water. Remove contaminated clothing, jewelry and shoes. **SPECIFIC TREATMENT:** Irrigation with water. **IF SKIN IRRITATION OCCURS:** GET MEDICAL ADVICE/ATTENTION. Wash contaminated clothing before re-use.

**Eye Contact:** Immediately flush contaminated eyes with a directed stream of water for as long as possible. Remove contact lenses, if present and easy to do. Continue rinsing. **GET MEDICAL ATTENTION IMMEDIATELY.**

**Ingestion:** If swallowed: Rinse mouth. Do NOT induce vomiting. Give water as tolerated. Never give anything by mouth to an unconscious or convulsive person. If vomiting occurs spontaneously, keep airway clear. If you feel unwell, contact a poison center or doctor/physician.

**Acute Symptoms/Effects:** Listed below.

**Inhalation (Breathing):** Respiratory Irritation: Upper airway irritation, may cause cough, redness of mouth and upper airways.

**Skin:** Skin Irritation: Exposure to skin may cause redness, or irritation.

**Eye:** Eye Irritation: Exposure to eyes may cause severe irritation and redness to the eye lids, conjunctiva. There is potential for permanent and severe eye damage if not treated immediately.

**Ingestion (Swallowing):** Gastrointestinal System Effects: Slightly toxic on ingestion. May be severely irritating to gastrointestinal tract possibly causing oral, esophageal, glottis redness, irritation, ulceration, edema, and stomach and intestinal irritation and burns. Ingestion of large quantities may cause ulceration, vomiting, shock, and death.

**Delayed Symptoms/Effects:** Repeated or prolonged contact may result in dermatitis **Interaction with Other Chemicals Which Enhance Toxicity:** None known.

# Potassium Carbonate



**Medical Conditions Aggravated by Exposure:** May aggravate preexisting conditions, such as: eye disorders that decrease tear production or have reduced integrity of the eye; skin disorders that compromise the integrity of the skin.

**Protection of First-Aiders:** Avoid contact with skin and eyes. Do not breathe dust. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

## Section 5: Fire Fighting Measures

**Fire Hazard:** Negligible fire hazard.

**Extinguishing Media:** Use extinguishing medium as appropriate for surrounding fire.

**Fire Fighting:** Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. **Hazardous Combustion Products:** Oxides of carbon, Potassium oxides **Sensitivity to Mechanical Impact:** Not sensitive.

**Sensitivity to Static Discharge:** Not sensitive.

**Lower Flammability Level (air):** Not flammable

**Upper Flammability Level (air):** Not flammable

**Flash point:** Not flammable

**Auto-ignition Temperature:** No information available

## Section 6: Accidental Release Measures

**Personal Precautions:** Avoid contact with skin and eyes. Avoid breathing dust. Avoid dust formation. Wash thoroughly after handling. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS.

**Methods and Materials for Containment and Cleaning Up:** Shovel dry material into suitable container. Flush spill area with water, if appropriate.

**Environmental Precautions:** Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

## Section 7: Handling and Storage

**Precautions for Safe Handling:** Avoid contact with skin and eyes. Avoid creation of dust. Avoid breathing dust. When using, do not eat, drink or smoke. Wash thoroughly after handling. Do not reuse containers. Use only in well-ventilated areas.

**Safe Storage Conditions:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Granular material is slightly hygroscopic; ground material is very hygroscopic. Store in a cool, dry area. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

**Incompatibilities/ Materials to Avoid:** Acids, Lime, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

## Section 8: Exposure Controls, Personal Protection

**Regulatory Exposure Limit(s):** As listed below.

**OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit NON-REGULATORY EXPOSURE LIMIT(S):** As listed below.

**OXY REL 8 hr TWA:** Recommended Exposure Limit - 2 mg/m<sup>3</sup> recommended Time Weighted Average

- 8 hour (internal Occupational Exposure Limit) (Inhalable Particulate)
- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).
- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

**Engineering Controls:** Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT:

**Eye Protection:** Wear safety glasses with side-shields. If eye contact is likely, wear chemical resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear protective clothing to minimize skin contact. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek<sup>®</sup>. Contaminated clothing should be removed and laundered before reuse.

**Hand Protection:** Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

**Protective Material Types:** Butyl rubber, Natural rubber, Neoprene, Nitrile

**Respiratory Protection:** A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. When an air purifying respirator is not adequate for spills and/or emergencies of unknown concentrations, an approved self-contained breathing apparatus operated in the pressure demand mode is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

## Section 9: Physical and Chemical Properties

**Physical state:** Solid

**Appearance:** Free-flowing, Granular

**Color:** White

**Molecular Weight:** 138.21

**Molecular Formula:** K<sub>2</sub>CO<sub>3</sub>

**Decomposition Temperature:** 212 - 392 °F (100 - 200 °C)

# Potassium Carbonate



**Boiling Point/Range:** Not applicable to solids

**Freezing Point/Range:** Not applicable to solids.

**Melting Point/Range:** 1636 °F (891 °C)

**Vapor Pressure:** Not applicable

**Vapor Density (air=1):** Not applicable

**Relative Density – Specific Gravity (water=1):** 2.428 @ 19 (°C)

**Density:** 1201 - 1330 g/L (granular); 560 - 625 g/L (ground) @ 20 °C

**Bulk Density:** 75-83 lb/ft<sup>3</sup> (granular); 35-39 lb/ft<sup>3</sup> (ground) @ 20 °C

**Water Solubility:** 100% **pH:** moderately basic in solution

**Volatility:** Not applicable

**Evaporation Rate (ether=1):** Not applicable

**Partition Coefficient (n-octanol/water):** Not applicable

**Flash point:** Not flammable

**Flammability (solid, gas):** Not flammable

**Lower Flammability Level (air):** Not flammable

**Upper Flammability Level (air):** Not flammable

**Auto-ignition Temperature:** No information available

**Viscosity:** Not applicable

**Hygroscopic:** Yes

## Section 10: Stability and Reactivity

**Reactivity:** Not reactive under normal temperatures and pressures.

**Chemical Stability:** Stable at normal temperatures and pressures.

**Possibility of Hazardous Reactions:** Avoid contact with lime to prevent formation of corrosive potassium hydroxide (KOH).

**Conditions to Avoid:** (e.g., static discharge, shock, or vibration) -. None known.

**Incompatibilities/ Materials to Avoid:** Acids, Lime, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

**Hazardous Decomposition Products:** Carbon oxides, Potassium oxides **Hazardous**

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

### TOXICITY DATA:

**Product Toxicity Data:** Potassium Carbonate (Anhydrous)

# Potassium Carbonate



<b>LD50 Oral:</b> 1870 mg/kg (Rat)	<b>LD50 Dermal:</b> >2000 mg/kg (Rabbit)	<b>LC50 Inhalation:</b> > 4.96 mg/l (rat/4.5 hour)
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## COMPONENT TOXICITY DATA:

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Potassium Carbonate 584-08-7	1870 mg/kg (Rat)	-----	-----

## POTENTIAL HEALTH EFFECTS:

**Eye contact:** Eye exposure may cause severe irritation and redness to the eye lids, conjunctiva. Untreated, prolonged eye contact can cause permanent and severe eye damage.

**Skin contact:** Exposure to skin may cause redness, irritation.

**Inhalation:** Inhalation of this material may cause upper airway irritation, cough, redness of mouth and upper airways.

**Ingestion:** Ingestion of this material may cause oral, esophageal, glottis redness, irritation, ulceration, edema, and stomach and intestinal irritation and burns. Ingesting large quantities may cause ulceration, vomiting, shock, and death.

**Chronic Effects:** Repeated or prolonged contact may result in dermatitis.

**SIGNS AND SYMPTOMS OF EXPOSURE:** Listed below.

**Inhalation (Breathing):** Respiratory Irritation: Upper airway irritation, may cause cough, redness of mouth and upper airways.

**Skin:** Skin Irritation: Exposure to skin may cause redness, or irritation.

**Eye:** Eye Irritation: Exposure to eyes may cause severe irritation and redness to the eye lids, conjunctiva. There is potential for permanent and severe eye damage if not treated immediately.

**Ingestion (Swallowing):** Gastrointestinal System Effects: Slightly toxic on ingestion. May be severely irritating to gastrointestinal tract possibly causing oral, esophageal, glottis redness, irritation, ulceration, edema, and stomach and intestinal irritation and burns. Ingestion of large quantities may cause ulceration, vomiting, shock, and death.

**Acute Toxicity:** This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction.

**Interaction with Other Chemicals Which Enhance Toxicity:** None known

**GHS Health Hazards:** Listed below

**GHS: Acute Toxicity - Oral:** Category 4 - Harmful if swallowed.

**GHS: Acute Toxicity - Dermal:** Not classified as acutely toxic for dermal exposure.

**GHS: Acute Toxicity - Inhalation:** Category 4 - Harmful if inhaled.

**GHS: Contact Hazard - Skin:** Category 2 - Causes skin irritation

**GHS: Contact Hazard - Eye:** Category 2A - Causes serious eye irritation

**GHS: Sensitization Hazard:** This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction.

**GHS: Carcinogenicity:** This product is not classified as a carcinogen by NTP, IARC or OSHA.

**SPECIFIC Target Organ Toxicity (Single Exposure):** Category 3 - Respiratory Tract Irritation

**Mutagenic Data:** Not classified as a mutagen per GHS criteria. Tested negative in test systems evaluated.

**Developmental Toxicity:** No discernable effects on maternal or fetal survival were observed in animal studies.



## Section 12: Ecological Information

### ECOTOXICITY DATA:

#### Fish Toxicity:

LC50 Bluegill sunfish: 230 mg/L (96 hour)  
LC50 Rainbow trout: 68 mg/L (96 hour)  
LC50 Fathead minnow: 940 mg/L (24 hour)  
LC50 Fathead minnow: 820 mg/L (48 hour)  
LC50 Fathead minnow: <510 mg/L (96 hour)

#### Invertebrate Toxicity:

EC50 Daphnia magna: 430 mg/L (48 hour) - hard water  
EC50 Daphnia pulex: 200 mg/L (48 hour) - soft water

#### Other Toxicity:

LC50 Ceriodaphnia dubia (water flea): 630 mg/l (24 hour)  
LC50 Ceriodaphnia dubia (water flea): 630 mg/l (48 hour)  
LC50 Daphnia magna (water flea): 670 mg/l (24 hour)  
LC50 Daphnia magna (water flea): 650 mg/l (48 hour)

### FATE AND TRANSPORT:

**Biodegradation:** This material is inorganic and not subject to biodegradation.

**Persistence:** This material is believed not to persist in the environment.

**Bioaccumulative Potential:** This material is believed not to bioaccumulate. Potassium carbonate is very soluble in water. Therefore the substance does not accumulate in lipophilic tissues of living organisms. **Additional**

**Ecological Information:** May increase pH of waterways and adversely affect aquatic life.

## Section 13: Disposal Considerations (non-mandatory)

**Waste From Material:** Reuse or reprocess, if possible. May be subject to disposal regulations. Measure the pH of solutions to determine disposal restrictions. Dispose in accordance with all applicable regulations.

**Container Management:** Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

## Section 14: Transport Information

### LAND TRANSPORT

#### U.S. DOT 49 CFR 172.101:

**Status:** Not regulated

#### CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

**Status:** Not regulated

**MARITIME TRANSPORT (IMO / IMDG):** Not regulated



Status - IMO / IMDG: Not Regulated

## Section 15: Regulatory Information

### U.S. REGULATIONS

**OSHA Regulatory Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):** Not regulated.

**SARA EHS Chemical (40 CFR 355.30):** Not regulated

**EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):** Acute Health Hazard **EPCRA**

**SECTION 313 (40 CFR 372.65):** Not regulated.

**DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):**  
No components in this material are regulated under DHS

**OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):** Not regulated

**FDA:** This material has Generally Recognized as Safe (GRAS) status under specific FDA regulations. Additional information is available from the Code of Federal Regulations which is accessible on the FDA's website. This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).

### NATIONAL INVENTORY STATUS

**U.S. INVENTORY STATUS:** Toxic Substance Control Act (TSCA): All components are listed or exempt.

**TSCA 12(b):** This product is not subject to export notification.

**Canadian Chemical Inventory:** All components of this product are listed on either the DSL or the NDSL.

**STATE REGULATIONS:** There are no applicable state regulations for this product or its components.

**CANADIAN REGULATIONS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the

SDS contains all the information required by the Controlled Products Regulations.

**WHMIS - Classifications of Substances:** D2B - Poisonous and Infectious Material; Materials causing other toxic effects - Toxic material

## Section 16: Additional Information

Prepared by: Origination, Inc.

Prepared: May, 2015

### Disclaimer:

*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 event shall Origination 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 Origination has been advised of the possibility of such damages.*