

Section 1: Product & Company Information**Product Identifier:** Potassium Chloride, Untreated (Powder & Pellet)**Other Means of Identification**Product Number: 162000
162002**Recommended Use and Restrictions on Use**Recommended Use: Crop Nutrient, Industrial applications.
Restrictions on Use: Not known.**Manufacturer / Importer / Supplier / Distributor Information****Company Name:** CORECHEM Inc.**Address:** 4320 Greenway Drive
Knoxville, TN 37918
USA**Information Telephone Number:** 1-865-524-4239**Fax Number:** 1-865-524-3375**Website:** www.corecheminc.com**Contact Person:** Regulatory Manager**E-mail:** regulatory@corecheminc.com**Emergency Phone Number:** Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)**Section 2: Hazards Identification****GHS Hazard Classification(s)**

Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Section 3: Composition/Information on Ingredients**Substance**

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Potassium Chloride	Muriate of Potash	7447-40-7	95 – 99.5%	No
Sodium Chloride		7647-14-5	.3 – 3.7%	No

- Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as its Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- “—” Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures**General Information**

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention.

Skin Contact

Wash contaminated area thoroughly with mild soap and water. If chemical or solution soaks through clothing, remove clothing and wash contaminated skin. If irritation develops and persists after washing, seek medical attention.

Eye Contact

Move Victim away from exposure into fresh air. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing.

Ingestion

If large amounts are swallowed, seek emergency medical attention. If possible, do not leave victim unattended and observe closely for adequacy of breathing.

Most important symptoms/effects, acute and delayed

Symptoms

Irritating to eyes, respiratory system, and skin.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat symptomatically. Symptoms may be delayed.

Section 5: Fire-Fighting Measures

General Fire Hazards

No unusual fire or explosion hazards are expected. When this material is subjected to high temperatures. It may release small amounts of chloride Gas.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Special Protective Equipment for Fire-Fighters

Muriate of Potash is non-combustible, however, when this material is subjected to temperatures of 1,500 C (2,732 F) or greater, it may release small amounts of chlorine gas.

Positive pressure, self-contained breathing apparatus is required for all firefighting activities involving hazardous materials. Full structural firefighting (bunker) gear is the minimum acceptable attire. The need for proximity, entry, flashover and/or special chemical protective clothing (see Section 8) needs to be determined for each incident by a competent firefighting safety professional.

Water used for fire suppression and cooling may become contaminated. Discharge to sewer system(s) or the environment may be restricted, requiring containment and proper disposal of water (see Section 6).

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency

Procedures

Evacuate spill area. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low area. Remove all possible sources of ignition in the surrounding area. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the SDS for Personal Protective Equipment. Ventilate contaminated area thoroughly shut off leaks, if possible, without personal risk.

Stay upwind and away from spill (dust hazard). Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Notify appropriate federal, state, and local agencies as may be required (see Section 15). Minimize dust generation. Sweep up and package appropriately for disposal. Large spills can harm or kill vegetation.

Methods and Materials for Containment and Clean-Up

Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Dike for later disposal. Prevent entry into waterways, sewer, basements, or confined areas. Stop the flow of material if this is without risk. Inform authorities if large amounts are involved.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid generation and spreading of dust. Avoid inhalation of dust. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash hands thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment.

Conditions for Safe Storage, including any Incompatibilities

Keep away from any incompatible material. Protect containers against any physical damage. Material may absorb moisture from the air. Keep container(s) tightly closed.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Chemical Name	Type	Value	Rater
Potassium Chloride	TWA	5 mg/m3 TWA (respirable);	OSHA Permissible Exposure Limits (PEL):
Potassium Chloride	TWA	15 mg/m3 TWA (total)	OSHA Permissible Exposure Limits (PEL):
Potassium Chloride	TWA	3 mg/m3 TWA (respirable)	ACGIH Threshold Limit Value (TLV):
Potassium Chloride	TWA	10 mg/m3 TWA (inhalable)	ACGIH Threshold Limit Value (TLV):

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Use process enclosure, general dilution ventilation or local exhaust systems where necessary to maintain airborne dust concentration below the OSHA standards or in accordance with applicable regulations.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Eye/Face Protection

Wear safety glasses with side shields (or goggles). Use tight fitting goggles if dust is generated.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

A NIOSH approved air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant a respirator.

Hygiene Measures

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Avoid contact with eyes, skin, and clothing.

Other:

A Source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Solid; Crystalline or Granular
Color: White to Reddish-Brown

Odor:

None / Saline

Odor Threshold:

No data available.

pH:

5.4 -10.0 in a 5% Solution

Melting Point/Freezing Point:

772° to 776°C

Initial Boiling Point and Boiling Range:	1,500 °C/1418 ° F
Flash Point:	No data available.
Bulk Density:	Lose 64-75 lbs./ft ³ (1025 -1200 kg/m ³)
Evaporation Rate (butyl acetate=1):	No data available.
Flammability (solid, gas):	No data available.
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	No data available.
Flammability Limit – Lower:	No data available.
Explosive Limit – Upper:	No data available.
Explosive Limit – Lower:	No data available.
Vapor Pressure:	No data available.
Vapor Density (air =1):	No data available.
Relative Density (water=1):	1.986-1.990
Solubility(ies):	
Solubility in water:	99.5 -99.999%; 34.2 g/100mL at 20°C
Solubility (other):	Glycerol: Soluble
Partition coefficient (n-octanol/water):	No data available.
Auto-Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Other Information:	
Molecular Weight:	74.56 g/mol
Formula:	KCl

Section 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

Excessive heat. Contact with incompatible materials.

Corrosiveness

Similar to salt. Mildly corrosive to metals in the presence of metals

Incompatible Materials

Avoid contact with hot nitric acid, may cause evolution of toxic nitrosyl chloride. Contact with other strong acids may produce irritating hydrogen Chloride gas. KCl may react violently with bromide trifluoride and may explode if mixed with potassium permanganate and sulfuric acid. NaCl can react with most noble metals, such as iron and steel., building materials (Such as cement), bromine, or trifluoride. A potentially explosive reaction may occur if NaCl is mixed with dichloroacetic anhydride and urea. Electrolysis of mixtures containing NaCl, and nitrogen compounds may form explosive nitrogen Trichloride.

Hazardous Decomposition Products

Thermal decomposition emits toxic fumes of chlorine. Oxides of potassium.

Section 11: Toxicological Information

Information on routes of exposure

- Ingestion:** May be harmful if swallowed.
- Inhalation:** May be harmful if inhaled.
- Skin Contact:** May cause irritation.
- Eye Contact:** Causes eye irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

- Potassium Chloride: LD 50 (Rat): 2,600 mg/kg
- Potassium Chloride: LD 50 (Mouse) > 1500 mg/kg
- Sodium Chloride: LD50 (rat, oral) > 3000 mg/kg

Sodium Chloride: LD50 (mouse, oral) > 4000 mg/kg

Dermal

No data available.

Inhalation

Sodium Chloride: LC50 (rat) > 42 g/m³ / 1 hour

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

May cause skin irritation.

Serious Eye Damage/Eye Irritation

Causes eye irritation.

Respiratory/Skin Sensitization

Not a skin sensitizer.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity - Single Exposure

None known.

Specific Target Organ Toxicity - Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

None known.

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Potassium Chloride: LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 750 - 1,020 mg/l Mortality

Potassium Chloride: LC50 (*Lepomis macrochirus*) - 2010 mg/l

Sodium Chloride: LD50 (*Pimephales promelas*) - 6,020,000 - 10,000,000 ug/l

Aquatic Invertebrates

Potassium Chloride: EC 50 (Water flea (*Daphnia magna*), 48 h): 83 mg/l Intoxication

Potassium Chloride: LC 50 (Water flea (*Daphnia magna*), 96 h): 29 mg/l Mortality

Sodium Chloride: LC50 (*Daphnia magna*) - 3,144,000 - 10,000,000 ug/l

Sodium Chloride: EC50 (*Daphnia pulex*) - 56.40 mM

Toxicity to Aquatic Plants

No data available.

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

This product is readily biodegradable.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

The product is water soluble and may spread in water systems.

Other Adverse Effects

Dissolution of large quantities of potassium chloride in water may create an elevated level of salinity that may be harmful to freshwater aquatic species and to plants that are not salt-tolerant.

Section 13: Disposal Considerations

Disposal Instructions

Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied.

US Department of Transportation (DOT)

This material is not regulated as a hazardous material for transport by the U.S. Department of Transportation in accordance with 49 CFR 172.101.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No
Sudden Release of Pressure: No
Reactive: No

Acute (Immediate) Health No
Hazard:
Chronic (Delayed) Health No
Hazard:

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 1

Chronic Health Hazard: /

Flammability: 0

Physical Hazard: 0

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 1

Fire Hazard: 0

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and

Acronyms

ATE - Acute Toxicity Estimate	ACGIH - American Conference of Industrial Hygienists
BCF - Bioconcentration Factor	AIHA - American Industrial Hygiene Association
EC50 - Effective concentration, 50%	BEI - Biological Exposure Indices
IDHL - Immediately Dangerous to Life and Health	CAS - Chemical Abstracts Service
Kg - Kilogram	DOT - US Department of Transportation
l - Liter	EPA - US Environmental Protection Agency
lb - Pound	GHS - Globally Harmonized System of Classification and Labelling of Chemicals
LC50 - Lethal Concentration, 50%	IARC - International Agency for Research on Cancer
LD50 - Lethal Dose, 50%	IATA - International Air Transport Association
mg - milligram	IBC - Intermediate Bulk Container
ml - milliliter	IMDG - International Maritime Dangerous Goods
N/A - Not Applicable	NIOSH - National Institute for Occupational Safety and Health
N/D - Not Determined	NTP - National Toxicology Program
PEL - Permissible Exposure Limit	OSHA - US Occupational Health and Safety Administration
REL - Recommended Exposure Limit	SARA - US EPA Superfund Amendments and Reauthorization Act
STEL - Short-term Exposure Limit	TSCA - US EPA Toxic Substances Control Act
TWA - Time weighted average	UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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