MATERIAL SAFTY DATA SHEET

## **POTASSIUM CHLORIDE**

## PRODUCT: POTASSIUM CHLORIDE

# SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

# WATER SPECIALIST SUPPLY CO.,LTD.

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PREPARED BY...... Water Specialist Supply CO.,LTD

PREPARATION DATE...... 13/September/16

PRODUCT NAME......Potassium Chloride

CHEMICAL FORMULA.....KCI.

MOLECULAR WEIGHT.....74.55 g/mole.

CHEMICAL FAMILY...... INORGANIC SALT .

EMERGENCY PHONE NO...... (+66)34-440-851 to 3 or (+66)95-367-5790

# SECTION 02: COMPOSITION/INFORMATION ON INGREDIENT

Name	CAS#	%by Weight
Potassium chloride	7447-40-7	> 99%

## SECTION 03: HAZARDS IDENTIFICATION

#### **Potential Acute Health Effects:**

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

#### Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells.

Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance may be toxic to blood, cardiovascular system. Repeated or prolonged exposure to the substance can produce target organs damage.

## **SECTION 04: FIRST AID MEASURES**

#### **INSTRUCTIONS:**

#### Eye contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

#### **Skin Contact**

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

#### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

#### Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

# **SECTION 05: FIRE FIGHTING MEASURES**

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. Slightly explosive in presence of oxidizing materials.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

**Special Remarks on Explosion Hazards:** 

May result in explosion with potassium permanganate and sulfuric acid.

#### SECTION 06: ACCIDENTAL RELEASE MEASURES

#### Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

#### Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

# **SECTION 07: HANDLING AND STORAGE**

#### Precautions:

Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, moisture.

**Storage:**Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

## SECTION 08: EXPOSE CONTROL/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:

Safety glasses. 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 09: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid.

Odor: Odorless.

Taste: Saline. (Strong.)

Molecular Weight: 74.55 g/mole

Color: White.

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

**Boiling Point:** 1420°C (2588°F)

Melting Point: 770°C (1418°F)

Critical Temperature: Not available.

Specific Gravity: 1.987 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

Solubility:

Soluble in cold water, hot water. Very slightly soluble in methanol, n-octanol.

## SECTION 10:STABILITY AND REACTIVITY

#### Stability:

The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances:

Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** 

Hygroscopic. Incompatible with KMnO4, H2SO4, BrF3, and BrCl3. May react violently

with BrF3.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

#### SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 1500 mg/kg [Mouse].

Chronic Effects on Humans: May cause damage to the following organs: blood,

cardiovascular system.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of

ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May affect genetic material. Passes through the placental barrier in animal.

## Special Remarks on other Toxic Effects on Humans:

Actute Potential Health Effects: Skin: May cause skin irritation

Eye: Dust may cause eye irritation.

Inhalation: Dust may cause respiratory tract irritation. Low hazard for usual industrial

handling

Ingestion: May affect behavior (coma, change in motor activity, listlessness, vertigo, mental confusion, paresthesias, general weakness, flaccid paralysis), metabolism, blood (change in clotting factor, electrolytic imbalance), cardiovascular (hypotension, circulatory disturbances, cardiac arrhythmias, heart block), and respiratory, gastrointestinal (irritation of GI tract, nausea, vomiting, diarrhea, abdominal discomfort, purging), and urinary(impairment of renal function) systems.

Acute potassium intoxication by mouth is rare because large single doses usually induce vomiting, and because in the absence of pre-existing kidney damage potassium is rapidly excreted. Maximal nontoxic oral dose of KCI in man varies from 0.2g to 1 g of potassium/kg/day depending upon efficiency of individual excretory mechanism; lower doses sometimes cause impairment of renal function as shown by reduced inulin, and urea clearance.

Chronic Potential Health Effects: May affect blood and cardiovascular system.

# **SECTION 12: ECOLOGICAL CONSIDERATION**

**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 product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

# **SECTION 13: DISPOSAL CONSIDERATION**

#### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

# **SECTION 14: TRANSPORT INFORMATION**

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

Special Provisions for Transport: Not applicable.

## **SECTION 15: REGULATORY INFORMATION**

Federal and State Regulations: TSCA 8(b) inventory: Potassium chloride

#### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

#### Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

#### DSCL (EEC):

R36- Irritating to eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S39- Wear eye/face protection.

#### HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

## National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard:

#### Protective Equipment:

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

# **SECTION 16: OTHER INFORMATION**

#### Disclaimer:

Water Specialist Supply(WSS THAILAND) CO.,Ltd provide information contained here in good faith but make no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handing of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.