

**Safety Data Sheet102**

**White Soluable Muriate of Potash**

Revision date: 04/30/2015

:Version: 1.0

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Mixture  
Substance name : White Soluable Muriate of Potash  
Product code : IW2, SOL, SOLFG  
Product group : Commercial product  
Other means of identification : Potash, Soluble Fine Grade

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance/preparation : Fertilizer. Industrial use.  
No additional information available

**1.3. Details of the supplier of the safety data sheet**

PCS Sales (USA), Inc.  
1101 Skokie Blvd.  
Suite 400  
Northbrook, IL 60062  
T 800-241-6908 / 847-849-4200  
  
Suite 500  
122 1st Avenue South  
Saskatoon, Saskatchewan Canada S7K7G3  
T 800-667-0403 (Canada) / 800-667-3930 (USA)  
[SDS@PotashCorp.com](mailto:SDS@PotashCorp.com) - [www.PotashCorp.com](http://www.PotashCorp.com)

**1.4. Emergency telephone number**

Emergency number : 800-424-9300  
CHEMTREC

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**GHS-US classification**

Eye Irrit. 2B H320  
Full text of H-phrases: see section 16

**2.2. Label elements**

**GHS-US labelling**

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H320 - Causes eye irritation  
Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P313 - If eye irritation persists: Get medical advice/attention

**2.3. Other hazards**

No Pictogram according to the established criteria

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name               | Product identifier  | %         | GHS-US classification |
|--------------------|---------------------|-----------|-----------------------|
| Potassium chloride | (CAS No.) 7447-40-7 | 99 - 99.8 | Eye Irrit. 2B, H320   |
| Sodium chloride    | (CAS No.) 7647-14-5 | 0.2 - 1   | Eye Irrit. 2A, H319   |

May contain up to 0.03% neutralized primary aliphatic (anti-cake) amine.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures general            | : If medical advice is needed, have product container or label at hand.   |
| First-aid measures after inhalation   | : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.  |
| First-aid measures after skin contact | : Wash skin thoroughly with mild soap and water. Obtain medical attention if irritation develops or persists.   |
| First-aid measures after eye contact  | : Immediately rinse with water for a prolonged period (at least 15 minutes) while holding the eyelids wide open. Obtain medical attention if pain and irritation develops or persists.  |
| First-aid measures after ingestion    | : Do not induce vomiting. Administer water if patient is conscious. Ingesting potash will usually cause purging of the stomach by vomiting. Seek medical attention if a large amount is swallowed. Get medical advice and attention if you feel unwell. |

### 4.2. Most important symptoms and effects, both acute and delayed

|                                      |  |
|--------------------------------------|--|
| Symptoms/injuries                    | : Irritation to eyes, skin and respiratory tract.  |
| Symptoms/injuries after inhalation   | : Overexposure may be irritating to the respiratory system.  |
| Symptoms/injuries after skin contact | : May cause skin irritation.   |
| Symptoms/injuries after eye contact  | : May cause eye irritation.  |
| Symptoms/injuries after ingestion    | : If a large quantity has been ingested : Abdominal pain; Diarrhea; Nausea; Vomiting; Tingling in hands and feet; Weak pulse; Circulatory disturbances |
| Chronic symptoms                     | : Prolonged inhalation of dust may cause respiratory irritation.   |

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Not flammable. Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | : None known.  |

### 5.2. Special hazards arising from the substance or mixture

|             |   |
|-------------|---|
| Fire hazard | : Under conditions of fire this material may produce: Potassium oxides; Hydrogen chloride; Chlorine gas |
|-------------|---|

Explosion hazard : Product is not explosive.  
Reactivity : Stable at ambient temperature and under normal conditions of use.

### 5.3. Advice for firefighters

Firefighting instructions : Keep upwind. Under conditions of fire this material may produce: Potassium oxides; Hydrogen chloride; Chlorine gas  
Protection during firefighting : Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).  
Other information : Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not breathe fumes from fires or vapours from decomposition.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection including tight fitting goggles in areas of high dust concentration. Wear NIOSH approved respiratory protective equipment when workplace conditions warrant use of respirator.  
Emergency procedures : Collect as any solid. Ventilate area.

#### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection including tight fitting goggles in areas of high dust concentration. Wear NIOSH approved respiratory protective equipment when conditions warrant use of respirator.  
Emergency procedures : If possible, stop flow of product. Contain and collect as any solid. Ventilate area.

### 6.2. Environmental precautions

If spill could potentially enter any waterway, including intermittent dry creeks, contact the U.S. COAST GUARD NATIONAL RESPONSE CENTER at 800-424-8802. In case of accident or road spill notify CHEMTREC at 800-424-9300. In other countries call CHEMTREC at (International code) +1-703-527-3887.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.  
Methods for cleaning up : Recover the product by vacuuming, shoveling or sweeping. Avoid generation of dust during clean-up of spills. If uncontaminated, recover and reuse as product. If on soil, remove and collect the top 5 cm of soil.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : When heated, material emits irritating fumes.  
Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.  
Hygiene measures : Emergency eye wash fountain and safety shower should be available in the

immediate vicinity of any potential exposure.

## 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Protect from moisture.

Special rules on packaging : Avoid contact with aluminum or carbon steel to minimize corrosion.

## 7.3. Specific end use(s)

Fertilizer. Industrial use.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

Highly soluble : No ACGIH TWA, Particulate Not Otherwise Specified (PNOS) not appropriate for highly soluble material.

## 8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Safety glasses. Protective clothing.



Hand protection : Impermeable protective gloves.

Eye protection : Protective goggles. Tight fitting goggles should be worn in dusty areas to reduce dust exposure to eyes.

Skin and body protection : Emergency eye wash fountain and safety shower should be available in the immediate vicinity of any potential exposure. Wear suitable protective clothing. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice. Wash clothing frequently.

Respiratory protection : Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.

Environmental exposure controls : Ensure adequate ventilation, especially in confined areas.

# SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Granular solid. Fine to 1 mm size.

Colour : White

Odour : No data available

Odour threshold : No data available

pH : ~ 7

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 771 - 773 °C (1420 - 1423 °F)

Freezing point : No data available

Boiling point : 1420 - 1500 °C (2588 - 2732 °F) (sublimes)

|                                  |                             |
|----------------------------------|-----------------------------|
| Flash point                      | : No data available         |
| Self ignition temperature        | : Not flammable             |
| Decomposition temperature        | : No data available         |
| Flammability (solid, gas)        | : Not flammable             |
| Vapour pressure                  | : No data available         |
| Relative vapour density at 20 °C | : No data available         |
| Relative density                 | : No data available         |
| Density                          | : 2 g/cc                    |
| Solubility                       | : Water: 347 g/l (at 20 °C) |
| Log Pow                          | : No data available         |
| Log Kow                          | : No data available         |
| Viscosity                        | : No data available         |
| Explosive properties             | : None known.               |
| Oxidising properties             | : None known.               |
| Explosive limits                 | : Not explosive             |

## 9.2. Other information

VOC content : < 0.5 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

### 10.2. Chemical stability

Stable at standard temperature and pressure.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Protect from moisture.

### 10.5. Incompatible materials

Contact with acids liberates toxic gas (chlorine). Contact with hot nitric acid may produce toxic nitrosyl chloride.

### 10.6. Hazardous decomposition products

Contact with strong acids may produce hydrogen chlorine gas.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| White Soluble Muriate of Potash |   |
|---------------------------------|---|
| Additional information          | Potassium chloride is listed by the FDA as "Generally Recognized as Safe" (GRAS) and may be used as a food additive according to prescribed conditions. |

|                                       |
|---------------------------------------|
| <b>Potassium chloride (7447-40-7)</b> |
|---------------------------------------|

LD50 oral rat 2600 mg/kg

|                                    |
|------------------------------------|
| <b>Sodium chloride (7647-14-5)</b> |
|------------------------------------|

|                            |  |
|----------------------------|--|
| LD50 oral rat              | 3 g/kg                                     |
| LD50 dermal rabbit         | > 10 g/kg                                  |
| LC50 inhalation rat (mg/l) | > 42 g/m <sup>3</sup> (Exposure time: 1 h) |

Skin corrosion/irritation : Not classified  
pH: ~ 7

Serious eye damage/irritation : Causes eye irritation  
pH: ~ 7

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

EPA Ecological Toxicity rating :

|                              |   |  |
|------------------------------|---|--|
| <b>Ecotoxicity</b>           | <b>Acute Toxicity to Fish:</b>                    | ( <i>Lepomis macrochirus</i> ) (blue gill) - 96 hour - LC <sub>50</sub> = 2010 mg/L(ppmKCl)  |
|                              | <b>Chronic Toxicity to Fish:</b>                  | No data available  |
|                              | <b>Acute Toxicity to Aquatic Invertebrates:</b>   | ( <i>Daphnia magna</i> ) - 48 hours - EC <sub>50</sub> = 337 - 825 mg/L; ( <i>Physa heterostropha</i> ) - 96 hrs - LC <sub>50</sub> = 940 mg/L.  |
|                              | <b>Chronic Toxicity to Aquatic Invertebrates:</b> | No data available  |
|                              | <b>Acute Toxicity to Aquatic Plants:</b>          | (Algae): (( <i>Nitzschia linearis</i> ) diatom) - 5 days- 120 hour TLm = 1,337 ppm KCl; ( <i>Scenedesmus subspicatus</i> ) 72 hour - EC <sub>50</sub> = 2,500 mg/L. ( <i>Chlorella vulgaris</i> ) - 3 - 4 months - NOEC = 600 mg KCl/L, LOEL = |
|                              | <b>Toxicity to Soil Dwelling Organisms:</b>       | No data available  |
|                              | <b>Toxicity to Terrestrial Plants:</b>            | No data available  |
| <b>Environmental Fate:</b>   | <b>Stability in Water:</b>                        | Ions can persist, dissociates in water   |
|                              | <b>Stability in Soil:</b>                         | Binds to clay particles.   |
|                              | <b>Transport and Distribution:</b>                | Distribution: 1.51 x 10 <sup>-8</sup> % to air; 45.2 % to water; 54.7% to soil; 0.0755% to sediment.   |
| <b>Toxicity:</b>             | Not toxic to aquatic organisms defined by USEPA.  |  |
| <b>Degradation Products:</b> | <b>Biodegradation:</b>                            | Chloride and potassium ions. No data available for biodegradability, photodegradation or bioaccumulation.  |
|                              | <b>Photodegradation:</b>                          | No data available.   |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations : This material may be hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste disposal recommendations : Place in an appropriate container and dispose of the contaminated material

at a licensed site.

Additional information : Dispose of waste material in accordance with all local, regional, national, and international regulations.

**SECTION 14: Transport information**

In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

**14.1. UN number**

No dangerous good in sense of transport regulations.

**14.2. UN proper shipping name**

Not applicable

**14.2 Additional information**

Other information : No supplementary information available.

**Overland transport**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

**White Soluble Muriate of Potash**

SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

**Potassium chloride (7447-40-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Sodium chloride (7647-14-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. US State regulations**

The following states have an OSH program approved by OSHA. If you are located in any of these states you may be under state jurisdiction rather than federal jurisdiction and your state may have more stringent requirements than OSHA. You should consult your state regulations to ensure compliance.

- |              |          |             |                |                 |
|--------------|----------|-------------|----------------|-----------------|
| Alaska       | Indiana  | Minnesota   | North Carolina | Utah            |
| Arizona      | Iowa     | Nevada      | Oregon         | Vermont         |
| California   | Kentucky | New Mexico  | Puerto Rico    | *Virgin Islands |
| *Connecticut | Maryland | *New Jersey | South Carolina | Virginia        |
| Hawaii       | Michigan | *New York   | Tennessee      | Washington      |
| *Illinois    |          |             |                | Wyoming         |

\*The state plans in these states apply only to public sector employers. In these states private sector employers are subject to USOL - OSHA jurisdiction. All other state plans apply to both public and private sector employers.

**Sodium chloride (7647-14-5)**

- U.S. - Texas - Effects Screening Levels - Long Term
- U.S. - Texas - Effects Screening Levels - Short Term

### 15.3. Canadian regulations

|  |  |
|--|--|
| <b>White Soluble Muriate of Potash</b> |  |
|--|--|

|                      |   |
|----------------------|---|
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |
|----------------------|---|

|                                       |  |
|---------------------------------------|--|
| <b>Potassium chloride (7447-40-7)</b> |  |
|---------------------------------------|--|

|  |  |
|--|--|
| Listed on the Canadian DSL (Domestic Substances List) inventory. |  |
|--|--|

|                      |   |
|----------------------|---|
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |
|----------------------|---|

|                                    |  |
|------------------------------------|--|
| <b>Sodium chloride (7647-14-5)</b> |  |
|------------------------------------|--|

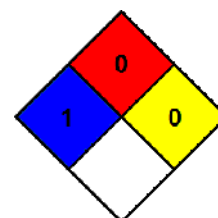
|  |  |
|--|--|
| Listed on the Canadian DSL (Domestic Substances List) inventory. |  |
|--|--|

|                      |   |
|----------------------|---|
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |
|----------------------|---|

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

## SECTION 16: Other information

- NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
- NFPA fire hazard : 0 - Materials that will not burn.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Full text of H- phrases:

|               |   |
|---------------|---|
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Eye Irrit. 2B | Serious eye damage/eye irritation Category 2B |
| H319          | Causes serious eye irritation                 |
| H320          | Cause eye irritation                          |

Previous PotashCorp MSDS Number : MSDS 24 - White Soluble Muriate of Potash

SDS US (GHS HazCom 2012)

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