

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Substance name : White Soluble 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, Animal Feed

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 - 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

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P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No Pictogram according to the established criteria

Per OSHA 29 CFR 1910.1200(b)(5)(iii) labelling is not required for this product as labelling is covered under the requirements of the Food and Drug Administration (FDA) or the US Department of Agriculture (USDA).

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

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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.

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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.

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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.

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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.

Potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg

Sodium chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 42 g/m ³ (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 :	
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Ecotoxicity	Acute Toxicity to Fish:	(<i>Lepomis macrochirus</i>) (blue gill) – 96 hour - LC ₅₀ = 2010 mg/L(ppmKCl)
	Chronic Toxicity to Fish:	No data available
	Acute Toxicity to Aquatic Invertebrates:	(<i>Daphnia magna</i>) - 48 hours - EC ₅₀ = 337 – 825 mg/L; (<i>Physa heterostropha</i>) - 96 hrs - LC ₅₀ = 940 mg/L.
	Chronic Toxicity to Aquatic Invertebrates:	No data available
	Acute Toxicity to Aquatic Plants:	(Algae): ((<i>Nitzschia linearis</i>) diatom) - 5 days- 120 hour TLm = 1,337 ppm KCl; (<i>Scenedesmus subspicatus</i>) 72 hour - EC ₅₀ = 2,500 mg/L. (<i>Chlorella vulgaris</i>) - 3 – 4 months - NOEC = 600 mg KCl/L, LOEL =
	Toxicity to Soil Dwelling Organisms:	No data available
	Toxicity to Terrestrial Plants:	No data available
Environmental Fate:	Stability in Water:	Ions can persist, dissociates in water
	Stability in Soil:	Binds to clay particles.
	Transport and Distribution:	Distribution: 1.51 x 10 ⁻⁸ % to air; 45.2 % to water; 54.7% to soil; 0.0755% to sediment.
Toxicity:	Not toxic to aquatic organisms defined by USEPA.	
Degradation Products:	Biodegradation:	Chloride and potassium ions. No data available for biodegradability, photodegradation or bioaccumulation.
	Photodegradation:	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

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Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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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

White Soluble Muriate of Potash	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Potassium chloride (7447-40-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Sodium chloride (7647-14-5)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

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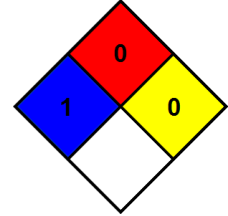
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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

Section(s) Updated : Section 1.1 Product Identifier - Use of the substance/preparation

Logo Change : No other information changes; kept same date

SDS US (GHS HazCom 2012)

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