

Potassium Chloride, 4M, saturated with SilverChloride

**Material Safety Data Sheet**

**Section 1. Product and Company Identification**

**Product Name** Potassium Chloride, 4M, saturated with SilverChloride  
**Product Code** VW3965  
**Manufacturer** EMD Chemicals Inc.  
P.O. Box 70  
480 Democrat Road  
Gibbstown, NJ 08027  
Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.  
**Effective Date** 3/4/2003  
**For More Information Call** 856-423-6300 Technical Service  
Monday-Friday: 8:00 AM - 5:00 PM  
**In Case of Emergency Call** 800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week  
**Synonym** None.  
**Material Uses** Laboratory Reagent  
**Chemical Family** Inorganic salt solution.

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**Section 2. Composition and Information on Ingredients**

<b>Component</b>	<b>CAS #</b>	<b>% by Weight</b>
POTASSIUM CHLORIDE	7447-40-7	
Silver Chloride	7783-90-6	
Water	7732-18-5	>69

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**Section 3. Hazards Identification**

**Physical State and Appearance** Liquid.  
**Emergency Overview** CAUTION !  
CAUSES EYE AND SKIN IRRITATION.  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
**Routes of Entry** Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential Acute Health Effects**  
**Eyes** Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.  
**Skin** Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of skin contact (permeator).  
**Inhalation** May be hazardous in case of inhalation (lung irritant).  
**Ingestion** May be hazardous in case of ingestion.  
**Potential Chronic Health Effects**  
**Carcinogenic Effects** This material is not known to cause cancer in animals or humans.

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Additional information See Toxicological Information (section 11)

**Medical Conditions Aggravated by Overexposure:** Repeated or prolonged exposure is not known to aggravate medical condition.

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### Section 4. First Aid Measures

**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 immediately.

**Skin Contact** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

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

**Ingestion** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

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### Section 5. 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 applicable.

**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 static discharge:** No.  
**Risks of explosion of the product in presence of mechanical impact:** No.

**Fire Fighting Media and Instructions** Not applicable.

**Protective Clothing (Fire)** Not applicable.

**Special Remarks on Fire Hazards** Not available.

**Special Remarks on Explosion Hazards** Not available.

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### Section 6. Accidental Release Measures

**Small Spill and Leak** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill and Leak** Absorb with an inert material and put the spilled material in an appropriate

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**Leak** waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

**Spill Kit Information** No specific spill kit required for this product.

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### Section 7. Handling and Storage

**Handling** Avoid contact with eyes, skin and clothing. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Wash thoroughly after handling.

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

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### Section 8. Exposure Controls/Personal Protection

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

#### Personal Protection

**Eyes** Splash goggles.

**Body** Lab coat.

**Respiratory** Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hands** Gloves.

**Feet** Not applicable.

#### Protective Clothing

##### (Pictograms)

**Personal Protection in Case of a Large Spill** Splash goggles. Full suit. Vapor 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.

#### Product Name

POTASSIUM CHLORIDE

Silver Chloride

#### Exposure Limits

Not available.

**Belgium Minister of Labour (Belgium, 1998).**

VL: 0.01 mg/m<sup>3</sup>

**BAUA (Germany, 1997).**

MAK: 0.01 mg/m<sup>3</sup>

**80/1107/EEC (Europe, 1991).**

TWA: 0.01 ppm

**Tyterveyslaitos (Finland, 1998).**

STEL: 0.03 mg/m<sup>3</sup>

TWA: 0.01 mg/m<sup>3</sup>

**INRS (France, 1996).**

VME: 0.01 mg/m<sup>3</sup>

**National Authority for Occupational Safety/Health (Ireland, 1999).**

OEL: 0.01 mg/m<sup>3</sup>

**Arbeidsinspectie (Netherlands, 1999).**

TGG 8 uur: 0.01 mg/m<sup>3</sup>

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**N–Arbeidstilsynet (Norway, 1996).**

AN: 0.01 mg/m<sup>3</sup>

**AFS (Sweden, 1996).**

NGV: 0.1 mg/m<sup>3</sup>

**EH40–OES (United Kingdom (UK), 1997).**

TWA: 0.01 mg/m<sup>3</sup>

Water

Not available.

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### Section 9. Physical and Chemical Properties

<b>Odor</b>	Odorless.
<b>Color</b>	Clear. , Colorless.
<b>Physical State and Appearance</b>	Liquid.
<b>Molecular Weight</b>	Not applicable.
<b>Molecular Formula</b>	Not applicable.
<b>pH</b>	5 to 8 [Acidic.]
<b>Boiling/Condensation Point</b>	The lowest known value is 99.9°C (211.8°F) (Water).
<b>Melting/Freezing Point</b>	May start to solidify at –0.1°C (31.8°F) based on data for: Water.
<b>Specific Gravity</b>	Not available.
<b>Vapor Pressure</b>	Not available.
<b>Vapor Density</b>	Not available.
<b>Odor Threshold</b>	Not available.
<b>Evaporation Rate</b>	0.36 (Water) compared to (n–BUTYL ACETATE=1)
<b>LogKow</b>	Not available.
<b>Solubility</b>	Easily soluble in water.

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### Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	Not available.
<b>Incompatibility with Various Substances</b>	Not available.
<b>Rem/Incompatibility</b>	Explodes in presence of bromine trifluoride. Incompatible with KMnO <sub>4</sub> , H <sub>2</sub> SO <sub>4</sub> , BrF <sub>3</sub>
<b>Hazardous Decomposition Products</b>	K <sub>2</sub> O
<b>Hazardous Polymerization</b>	Will not occur.

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### Section 11. Toxicological Information

#### RTECS Number:

Potassium Chloride	TS8050000
Silver Chloride	VW3563000
Water	ZC0110000

**Toxicity** Acute oral toxicity (LD<sub>50</sub>): 1500 mg/kg [Mouse]. (POTASSIUM CHLORIDE).

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<b>Chronic Effects on Humans</b>	Not available.
<b>Acute Effects on Humans</b>	Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of skin contact (permeator). May be hazardous in case of inhalation (lung irritant). May be hazardous in case of ingestion.
<b>Synergetic Products (Toxicologically)</b>	Not available.
<b>Irritancy</b>	Draize Test: Not available.
<b>Sensitization</b>	Not available.
<b>Carcinogenic Effects</b>	This material is not known to cause cancer in animals or humans.
<b>Toxicity to Reproductive System</b>	Not available.
<b>Teratogenic Effects</b>	Not available.
<b>Mutagenic Effects</b>	Not available.

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### Section 12. Ecological Information

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Toxicity of the Products of Biodegradation</b>	The products of degradation are less toxic than the product itself.

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### Section 13. Disposal Considerations

<b>EPA Waste Number</b>	Not available.
<b>Treatment</b>	Specified technology—Contact your local permitted waste disposal site (TSD) for permissible treatment sites. ALWAYS CONTACT PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

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### Section 14. Transport Information

<b>DOT Classification</b>	Not available.
<b>TDG Classification</b>	Not available.
<b>IMO/IMDG Classification</b>	Not available.
<b>ICAO/IATA Classification</b>	Not available.

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### Section 15. Regulatory Information

<b>U.S. Federal Regulations</b>	TSCA 8(b) inventory: POTASSIUM CHLORIDE; Silver Chloride; Water  SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were
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found.

SARA 302/304/311/312 hazardous chemicals: POTASSIUM CHLORIDE

SARA 311/312 MSDS distribution – chemical inventory – hazard

identification: POTASSIUM CHLORIDE: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

Clean Water Act (CWA) 307: Silver Chloride

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)** Class D–2B: Material causing other toxic effects (TOXIC).

CEPA DSL: POTASSIUM CHLORIDE; Silver Chloride; Water

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

### International Regulations

**EINECS** POTASSIUM CHLORIDE 231–211–8  
Silver Chloride 232–033–3  
Water 231–791–2

**DSCL (EEC)** R38– Irritating to skin.  
R41– Risk of serious damage to eyes.

**International Lists** Australia (NICNAS): POTASSIUM CHLORIDE; Silver Chloride; Water

Japan (MITI): POTASSIUM CHLORIDE; Silver Chloride; Water

Korea (TCCL): POTASSIUM CHLORIDE; Silver Chloride; Water

Philippines (RA6969): POTASSIUM CHLORIDE; Silver Chloride; Water

China: No products were found.

**State Regulations** Pennsylvania RTK: Silver Chloride: (environmental hazard, generic environmental hazard)

New Jersey: Potassium Chloride, 4M, saturated with SilverChloride

California prop. 65: No products were found.

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### Section 16. Other Information

**National Fire  
Protection  
Association  
(U.S.A.)**

**0 0  
Health<sup>1</sup>**

**Fire Hazard**

**Reactivity**

**Specific Hazard**

**Changed Since Last  
Revision** +

**Notice to Reader**

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