



Material Safety Data Sheet
Potassium Chloride Solutions

MSDS# 40140

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium Chloride Solutions
Catalog Numbers: SP135-500
Synonyms: Electrode Refill Solutions for Single Junction Silver/Silver Chloride.
Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#: 7447-40-7
Chemical Name: Potassium chloride
%: 26.0
EINECS#: 231-211-8
Hazard Symbols:

Risk Phrases: 34 37

CAS#: 7647-01-0
Chemical Name: Hydrogen chloride
%: 0.05
EINECS#: 231-595-7
Hazard Symbols: C

Risk Phrases:

CAS#: 7732-18-5
Chemical Name: Water
%: 73.8
EINECS#: 231-791-2
Hazard Symbols:

Risk Phrases:

CAS#: 7783-90-6
Chemical Name: Silver chloride
%: 0.15
EINECS#: 232-033-3
Hazard Symbols:

Hazard Symbols: XI



Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes respiratory tract irritation. Irritant. Causes eye and skin irritation. Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

- Eye: Causes eye irritation. May cause chemical conjunctivitis.
- Skin: Causes skin irritation.
- Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
- Inhalation: Causes respiratory tract irritation. Can produce delayed pulmonary edema.
- Chronic: Effects may be delayed.

Section 4 - First Aid Measures

- Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
- Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
- Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. Do NOT use mouth-to-mouth resuscitation.
- Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

- General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire.
- Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
- Autoignition Temperature: Not available.
- Flash Point: Not available
- Explosion Limits: Lower: Not available
- Explosion Limits: Upper: Not available
- NFPA Rating: health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

- General Information: Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Wash thoroughly after handling. Use with adequate ventilation. Avoid prolonged or repeated contact with skin.
 Handling: Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Potassium chloride	none listed	none listed	none listed
Hydrogen chloride	2 ppm Ceiling	50 ppm IDLH	5 ppm Ceiling; 7 mg/m3 Ceiling
Water	none listed	none listed	none listed
Silver chloride	none listed	none listed	none listed

OSHA Vacated PELs: Potassium chloride: None listed Hydrogen chloride: None listed Water: None listed Silver chloride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: colorless

Odor: none reported

pH: Not available

Vapor Pressure: 14 mm Hg

Vapor Density: 0.7

Evaporation Rate: >1 (ether=1)

Viscosity: Not available

Boiling Point: 100 deg C (212.00°F)

Freezing/Melting Point: -10 deg C (14.00°F)

Decomposition Temperature: Not available

Solubility in water: Soluble

Specific Gravity/Density: 1.2

Molecular Formula: KCl solutions

Molecular Weight: 0

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Light, excess heat.

Incompatibilities with Other Materials: Not available

Hazardous Decomposition Products: Hydrogen chloride, dipotassium oxide.

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7447-40-7: TS8050000
CAS# 7647-01-0: MW4025000 MW4031000
CAS# 7732-18-5: ZC0110000
CAS# 7783-90-6: VW3563000
RTECS:
CAS# 7447-40-7: Draize test, rabbit, eye: 500 mg/24H Mild;
Oral, mouse: LD50 = 1500 mg/kg;
Oral, rat: LD50 = 2600 mg/kg;
. .
RTECS:
CAS# 7647-01-0: Inhalation, mouse: LC50 = 1108 ppm/1H;
Inhalation, mouse: LC50 = 20487 mg/m3/5M;
Inhalation, mouse: LC50 = 3940 mg/m3/30M;
Inhalation, mouse: LC50 = 8300 mg/m3/30M;
Inhalation, rat: LC50 = 3124 ppm/1H;
Inhalation, rat: LC50 = 60938 mg/m3/5M;
Inhalation, rat: LC50 = 7004 mg/m3/30M;
Inhalation, rat: LC50 = 45000 mg/m3/5M;
Inhalation, rat: LC50 = 8300 mg/m3/30M;
Oral, rabbit: LD50 = 900 mg/kg;
. .
RTECS:
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
. .
RTECS:
CAS# 7783-90-6:
Potassium chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Hydrogen chloride - IARC: Group 3 (not classifiable)
Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Silver chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 7647-01-0: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 28A After contact with skin, wash immediately with plenty of water.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7447-40-7: 1

CAS# 7647-01-0: 1

CAS# 7732-18-5: Not available

CAS# 7783-90-6: 1

Canada

CAS# 7447-40-7 is listed on Canada's DSL List

CAS# 7647-01-0 is listed on Canada's DSL List

CAS# 7732-18-5 is listed on Canada's DSL List

CAS# 7783-90-6 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

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

CAS# 7447-40-7 is not listed on Canada's Ingredient Disclosure List.

CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7783-90-6 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 7447-40-7 is listed on the TSCA Inventory.

CAS# 7647-01-0 is listed on the TSCA Inventory.

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 7783-90-6 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/30/1997

Revision #10 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
