SOLVENT SYSTEMS International, Inc.
Environmental Services

Offer Sheet

Product	Potassium chloride (KCl)
Quantity	11 supersacks x 2,000 lbs.
Net weight	~22,000 lbs.
Condition	Off spec, hardened
Availability	One time
Location	Toledo, OH 43007
Date	2/3/26
COA & SDS	Attached below

Material requires grinding

Brian Svrusis
Solvent Systems International
575 Bennett Road
Elk Grove Village, IL 60007
847-323-6718 call or text
Click here for: Surplus Inventory
Solvent-Systems.com

Potassium chloride (KCl) is a high-volume industrial salt with applications spanning **agriculture, water treatment, food processing, chemicals manufacturing, pharmaceuticals, and energy**. Below is a commercial-use breakdown, with emphasis on sectors you routinely encounter in chemical distribution and wastewater markets.

🌾 1. Fertilizers & Agriculture (largest global market)

Primary use: Potash nutrient (source of potassium)

- Blended into **NPK fertilizers**
- Improves:
  - Crop yield
  - Drought resistance
  - Root strength
  - Disease tolerance

Commercial buyers:
Fertilizer blenders, agribusiness wholesalers, crop nutrient formulators

Typical grades:
MOP (Muriate of Potash) ~60–62% K_2O equivalent

💧 2. Water & Wastewater Treatment

Key functions:

✓ Nutrient source

- Potassium supplement in **biological treatment systems** where microbes require balanced nutrients (N-P-K)

✓ Regeneration salt (specialized softening systems)

- Alternative to sodium chloride in **ion exchange** for applications requiring reduced sodium discharge

✓ Corrosion control (niche)

- Used in certain formulations where chloride salts are needed with potassium ion preference

Buyers:
Municipal plants, industrial pretreatment facilities, water treatment chemical producers

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🍽 3. Food Processing & Food Ingredients

Common uses:

- **Salt substitute / sodium reduction agent**
- Flavor enhancer in:

Why used commercially:

- Maintains salty taste with lower sodium content
- Approved food additive (FCC/food grade)

🏭 4. Chemical Manufacturing

Feedstock or processing aid for:

- Potassium hydroxide (KOH) production (via electrolysis)
- Potassium carbonate
- Potassium sulfate fertilizers
- Specialty potassium salts

Also used as:

- Reaction medium in some organic syntheses
- Electrolyte in lab/industrial processes

Buyers:
Chlor-alkali producers, specialty chemical manufacturers

💊 5. Pharmaceuticals & Medical

Applications:

- Potassium supplements (tablets, IV solutions)
- Electrolyte replenishment products
- Dialysis solutions (controlled formulations)

🛢 6. Oil & Gas / Energy Sector

Used in:

- Drilling fluids (shale stabilization)
- Completion fluids
- Workover brines

Why:

- Controls clay swelling
- Improves wellbore stability

Buyers:
Oilfield service companies, drilling fluid formulators

❄ 7. De-icing & Dust Control (limited vs sodium chloride)

- Alternative road deicer in environmentally sensitive areas
- Less common due to higher cost

📦 8. Industrial & Miscellaneous Uses

- Heat transfer media (molten salt systems – specialty)
- Laboratory reagent
- Metal processing baths (certain treatments)

SK, Belle Plaine, 3 Kalium Road, Belle Plaine, SK, S0G 0G0

Certificate of Analysis

Material	100133	**Description**	MOP, 62% WHITE FINE UNTR 1ST TOTE
Delivery Number	1006075288	**Delivery Date**	10/12/2021
Order Number	3140559	**Order Date**	10/7/2021
Customer Reference No	5005723	**Customer Reference Date**	
Vehicle ID	552MHU-AGS	**Scale Ticket Number**	60012546

Chemical Analysis

Parameters	Value	Unit
K2O	62.48	%
NaCl	0.97	%
KCl	98.90	%
Surface Moisture	0.07	%

Physical Analysis

Parameters	Value	Unit
20 Tyler Mesh	0.84	%
28 Tyler Mesh	15.79	%
35 Tyler Mesh	27.33	%
48 Tyler Mesh	49.11	%
65 Tyler Mesh	76.77	%
100 Tyler Mesh	91.61	%
150 Tyler Mesh	98.20	%

Lot Number

Lot Number 1	21.244	

C Bender

Crystal Bender QC Lab Supervisor

SK, Belle Plaine, 3 Kalium Road, Belle Plaine, SK, S0G 0G0

Certificate of Analysis

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Vehicle ID	552MHU-AGS	**Scale Ticket Number**	60012546
			C

Chemical Analysis

Parameters	Value	Unit
K2O	62.49	%
NaCl	0.96	%
KCl	98.92	%
Surface Moisture	0.06	%

Physical Analysis

Parameters	Value	Unit
20 Tyler Mesh	0.99	%
28 Tyler Mesh	9.37	%
35 Tyler Mesh	27.07	%
48 Tyler Mesh	62.31	%
65 Tyler Mesh	87.71	%
100 Tyler Mesh	96.89	%
150 Tyler Mesh	99.40	%

Lot Number

Lot Number 1	21.282	

C Bender

Crystal Bender QC Lab Supervisor

SAFETY DATA SHEET

Creation Date 07-Aug-2009 **Revision Date** 26-Dec-2021 **Revision Number** 5

1. Identification

Product Name **Potassium chloride**

Cat No. : **AC418200000; AC418200025; AC418205000**

CAS No 7447-40-7
Synonyms KCl.

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

2. Hazard(s) identification

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements
None required

Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Potassium chloride	7447-40-7	>95

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.

Ingestion Do NOT induce vomiting. Get medical attention if symptoms occur.

Most important symptoms and effects No information available.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature No information available

Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
Potassium oxides. Hydrogen chloride gas.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
1	0	1	N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	6 50g/L (20°C)
Melting Point/Range	770 °C / 1418 °F
Boiling Point/Range	1420 °C / 2588 °F @ 760 mmHg
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	1.987 g/cm3
Specific Gravity	No information available
Solubility	Partially soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	Cl K
Molecular Weight	74.54

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic.

Conditions to Avoid Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Potassium oxides, Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium chloride	LD50 = 2600 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation May cause skin, eye, and respiratory tract irritation

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Potassium chloride	7447-40-7	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

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Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium chloride	EC50: 2500 mg/L/72h	Lepomis macrochirus: LC50: 1060 mg/L /96h Pimephales promelas: LC50:	Not listed	EC50: 825 mg/L/48h

		750 - 1020 mg/L /96h		

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Potassium chloride	7447-40-7	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Potassium chloride	7447-40-7	X	-	231-211-8	X	X	X	X	X	KE-29086

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Potassium chloride	7447-40-7	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Potassium chloride	7447-40-7	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Creation Date 07-Aug-2009
Revision Date 26-Dec-2021
Print Date 26-Dec-2021
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS