SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 09-May-2022 **Supersedes Date:** 19-Dec-2019 **Revision Number** 7.2

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

1.1. Product identifier

Product Name Potassium chloride

Product Code(s) 8676-2

REACH registration number This product is exempted from the obligation to register in accordance to Reg.(EC) 1907/2006 (natural mineral not modified chemically).

Synonyms Potash
Muriate of potash (MOP), STD MOP, GMOP
Nova Ferti-K
KCl Fru Grade

Pure substance/mixture Substance

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

Recommended use Fertilizer
Formulating agent
Food additive
Catalyst
Auxiliary

1.3. Details of the supplier of the safety data sheet

Supplier
ICL Italy S.r.l. Milano
Via Monteverdi 11, 20131, Milano, Italy
Tel: +39-02-20487221
Fax: +39-02-2049449
E-mail: msdsinfo@icl-group.com

1.4. Emergency telephone number

Emergency Telephone

Europe +31-20-5815100
(24 hours a day, 365 days a year)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008
This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
Hazard statements
This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.3. Other hazards

This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent

andvery bioaccumulative (vPvB) at concentrations of >= 0.1%.

Endocrine Disruptor Information

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
potassium chloride	-	-

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
potassium chloride	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	EC No	Weight-%	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
potassium chloride 7447-40-7	231-211-8	>95	-	-	-	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
potassium chloride 7447-40-7	-	-	-	-	-

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion Rinse mouth thoroughly with water
Get medical attention if symptoms occur

NOTE: Never give an unconscious person anything to drink

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

Symptoms No information available.

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

Note to physicians Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical May emit toxic fumes under fire conditions.

Hazardous combustion products Hydrogen chloride. Chlorine gas. Potassium oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid generation of dust.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Protect from moisture. Hygroscopic.

7.3. Specific end use(s)

Specific use(s) No specific requirements.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
potassium chloride 7447-40-7	-	-	-	TWA: 5.0 mg/m³	-
Chemical name	**Cyprus**	**Czech Republic**	**Denmark**	**Estonia**	**Finland**
potassium chloride 7447-40-7	-	-	-	-	-
Chemical name	**France**	**Germany**	**Germany MAK**	**Greece**	**Hungary**
potassium chloride 7447-40-7	-	-	-	-	-
Chemical name	**Ireland**	**Italy**	**Italy REL**	**Latvia**	**Lithuania**
potassium chloride 7447-40-7	-	-	-	TWA: 5 mg/m³	TWA: 5 mg/m³
Chemical name	**Luxembourg**	**Malta**	**Netherlands**	**Norway**	**Poland**
potassium chloride 7447-40-7	-	-	-	-	-
Chemical name	**Portugal**	**Romania**	**Slovakia**	**Slovenia**	**Spain**
potassium chloride 7447-40-7	-	-	-	-	-

Chemical name	Sweden	Switzerland	United Kingdom
potassium chloride 7447-40-7	-	-	-

Biological occupational exposure limits No relevant information available.

DNELs for workers

Chemical name	Acute - local effects	Acute - systemic effects	Long term Local effects	Long term systemic effects
potassium chloride 7447-40-7	-	-	-	-

DNELs for the general population

Chemical name	Acute - local effects	Acute - systemic effects	Long term Local effects	Long term systemic effects
potassium chloride 7447-40-7	-	-	-	-

Predicted No Effect Concentration (PNEC)

Chemical name	Water	Sediment	Soil	Impact on Sewage Treatment	Oral
potassium chloride 7447-40-7	-	-	-	-	-

8.2. Exposure controls

Engineering controls Eyewash stations
Showers
Ventilation systems

Personal protective equipment

Eye/face protection Chemical safety goggles.

Respiratory protection Not normally required; In case of dust formation use an approved particulate respirator.

Hand protection Protective gloves

Skin and body protection Wear suitable protective clothing.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	crystalline
Color	White red
Odor	Odorless.
Odor threshold	Not available

Property	Values	Remarks • Method
Melting point / freezing point	772 °C	
Boiling point / boiling range	1500 °C	Sublimation point
Flammability (solid, gas)	Not flammable .	
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	Not self-ignitable
Decomposition temperature	> 700 °C	
pH	7.5-8.5	
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	
Water solubility	300 g/l @ 20°C	
Solubility(ies)	Alcohol Methanol Glycerin Ether	
Partition coefficient	No data available	None known

Vapor pressure	No data available
Relative density	1.987
Bulk density	No data available
Liquid Density	No data available
Vapor density	No data available
Particle characteristics	
Particle Size	No information available
Particle Size Distribution	No information available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not applicable

Explosive properties	Product does not present an explosion hazard.

Not flammable .

Self-reactive substances and mixtures	
Oxidizing properties	The structure indicates non oxidizing properties
Organic peroxides	

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No reactive hazards known/expected.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reacts violently with BrF3 and sulfuric acid at 600°C.

10.4. Conditions to avoid

Conditions to avoid Hygroscopic. Protect from moisture.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products

Potassium oxides, Chlorine and hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
potassium chloride	>2000 mg/kg (Rat)	-	-

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

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitization Based on available data, the classification criteria are not met

Germ cell mutagenicity Based on available data, the classification criteria are not met

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

Chemical name	ACGIH	IARC	NTP	European Union
potassium chloride	-	-	-	-

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met

Aspiration hazard Not expected.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No endocrine disrupting properties are known.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
potassium chloride	EC50: > 100 mg/L (72h, Desmodesmus subspicatus)	LC50: 880 mg/L (96h, Pimephales promelas)	EC50: >1000 mg/L (3h, Activated sludge)	EC50: 440-880 mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability Not relevant for inorganic salts.

12.3. Bioaccumulative potential

Bioaccumulation Not expected to bioaccumulate

Chemical name	Partition coefficient
potassium chloride	-

12.4. Mobility in soil

Mobility in soil Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
potassium chloride	PBT assessment does not apply

12.6. Endocrine disrupting properties

No endocrine disrupting properties are known.

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers should be disposed of in accordance with all applicable laws and regulations.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

ADR/RID/ADN

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
potassium chloride 7447-40-7	RG 67	

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
potassium chloride - 7447-40-7	-	-

REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

GHS hazardous component CAS registry numbers appearing in section 3 may differ from substances appearing in section 15 due to country or regional chemical inventory coverage requirements, however, remain in compliance with the inventory
Products that are used as food additives are exempt from listing in international chemical inventories

For further details on the regulatory status for this product in a specific country, please send your inquiry to the following email address: msdsinfo@icl-group.com

TSCA	Listed or exempted
DSL	Listed or exempted
ENCS	Listed or exempted
IECSC	Listed or exempted
KECL	Listed or exempted
PICCS	Listed or exempted
TCSI	Listed or exempted
AIIC	Listed or exempted
NZIoC	Listed or exempted
NCI	Listed or exempted
NSQ	Listed or exempted
TECI	Listed or exempted

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substance Inventory
AIIC - Australian Inventory of Industrial Chemicals
NCI - Vietnam National Chemicals Inventory
NSQ - Mexico National Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TECI - Thailand Inventory FDA Existing Chemicals

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method

Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety Data Sheet