



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the
Hazardous Products Regulation (HPR)

Revision date 13-Jul-2025

Supersedes Date: 03-Jan-2023

Revision Number 2.1

1. Identification

Product identifier

Product Name Monopotassium phosphate anhydrous

Other means of identification

Product Code(s) 3048

Recommended use of the chemical and restrictions on use

Recommended use Biocide precursor
Fertilizer
Detergent
Water treatment chemical
Food additive
Fire extinguishing agent
Processing aid
Feed additives

Restrictions on use No information available

Details of the supplier of the safety data sheet

Initial Supplier Identifier

ICL
622 Emerson Road - Suite 500
St. Louis, Missouri 63141, USA
Tel: (314) 983-7884
e-mail: msdsinfo@icl-group.com

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300
Outside the USA, including ships at sea, call CHEMTREC's international and maritime
telephone number (collect calls accepted): +1 (703) 527-3887

2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

Label elements

Hazard statements

Not classified.

Other information

May be harmful if swallowed

This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of $\geq 0.1\%$.

3. Composition/information on ingredients**Substance**

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Potassium dihydrogenphosphate	7778-77-0	>95 %	-	-

4. First-aid measures**Description of first aid measures**

General advice	Take a copy of the Safety Data Sheet when going for medical treatment.
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	If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately. NOTE: Never give an unconscious person anything to drink

Most important symptoms and effects, both acute and delayed

Symptoms May be harmful if swallowed.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

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

Unsuitable extinguishing media	Full water jet.
Specific hazards arising from the chemical	May emit toxic and irritating fumes under fire conditions.
Hazardous combustion products	Phosphorus oxides.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid generation of dust. Wear protective gloves/protective clothing and eye/face protection.
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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.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Reference to other sections	See section 8 for more information. See section 13 for more information.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust. Ensure adequate ventilation.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. away from incompatible materials (see Section 10).
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8. Exposure controls/personal protection

Control Parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	Alberta	British Columbia	Ontario	Quebec
Potassium dihydrogenphosphate 7778-77-0	-	-	-	-

Appropriate engineering controls**Engineering controls**

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment**Eye/face protection**

Chemical safety goggles.

Hand protection

Protective gloves

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Crystalline
Color	White
Odor	Odorless

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	ca. 250 °C	
Initial boiling point and boiling range	> 450 °C	
Flammability	No data available	None known
Flammability Limit in Air	No data available	None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	Not applicable
Autoignition temperature	No data available	Not self-ignitable
Decomposition temperature	> 450 °C	
SADT (°C)		None known
pH	4.2-4.5	
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	
Water solubility	208 g/l @ 20°C.	
Solubility(ies)	No data available	None known
Partition Coefficient (n-octanol/water)	No data available	
Vapor pressure	No data available	
Relative density	No data available	

Bulk density	1150-1200 kg/m ³	
Liquid Density	No data available	
Relative vapor density	No data available	Not determined
Particle characteristics		None known
Particle Size	No information available	
Particle Size Distribution	No information available	

Other information**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**Other safety characteristics**

No information available

10. Stability and reactivity**Reactivity**

See section 10.3.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Reacts with bases and oxidizing agents.

Conditions to avoid

Hygroscopic. Exposure to moisture. To avoid thermal decomposition, do not overheat.

Incompatible materials

Oxidising agents. Bases.

Hazardous decomposition products Phosphorus oxides.**11. Toxicological information****Product Information****Information on likely routes of exposure****Ingestion**

May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms**

See section 4.

Numerical measures of toxicity**Acute toxicity**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium dihydrogenphosphate 7778-77-0	>2000 mg/kg (rat, OECD 420, read across)	>2000 mg/kg (rat, OECD 402, read across)	> 0.83 mg/L (4h, rat, OECD 403, read across)

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

Carcinogenicity Based on available data, the classification criteria are not met. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Potassium dihydrogenphosphate 7778-77-0	-	-	-	-

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.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Potassium dihydrogenphosphate 7778-77-0	EC50: > 100 mg/L (72h, desmodesmus subspicatus, OECD 201, read across); NOEC:> 100 mg/L (72h, desmodesmus subspicatus, OECD 201, read across)	LC50: >100 mg/L (96h, Oncorhynchus mykiss, OECD 203, read across)	EC50: >1000 mg/L (3 h, activated sludge, OECD 209, read across)	EC50: >100 mg/L (48h, daphnia magna, OECD 202, read across)

Persistence and degradability Not relevant for inorganic salts.

Bioaccumulation Not expected to bioaccumulate.

Chemical name	Partition coefficient
Potassium dihydrogenphosphate 7778-77-0	-

Mobility Not expected to adsorb on soil.

Other adverse effects No information available.

13. Disposal considerations

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.

14. Transport information

<u>TDG</u>	Not regulated
<u>DOT</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

15. Regulatory information

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

National regulations

Canada - Significant New Activity Notices Not applicable

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention 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
NDSL	Not Listed
ENCS	Listed or exempted
IECSC	Listed or exempted
KECL	Listed or exempted
PICCS	Listed or exempted
AIIC	Listed or exempted

NZIoC	Not Listed
TCSI	Listed or exempted
NCI	Listed or exempted
TECI	Listed or exempted
NSQ	Listed or exempted

Legend:

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

16. Other information

NFPA	Health hazards 0	Flammability 1	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

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

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization

ISO	International Organization for Standardization
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
Sen+	Sensitizer
Sk*	Skin designation
**	Hazard Designation

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)
 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)
 National Institute of Technology and Evaluation (NITE)
 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)
 U.S. 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

Prepared By HERA
e-mail:msdsinfo@icl-group.com
www.icl-group.com

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Revision Note The symbol (***) in the margin of this SDS indicates that this line has been revised.
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End of Safety Data Sheet