



صنعت پتاش اسیا
ASIA POTASH INDUSTRY

Technical Data Sheet (TDS)- Potassium Chloride

403-AD-RE-101-V01

Amir Hossein Haratian

Research & Development Department

2025-02-24

Report Document

Report Topic					
Technical Data Sheet (TDS)- Potassium Chloride					
Purpose of Report					
Awareness and clarification of the specifications and chemical analysis of the potassium chloride product					
Target Audience					
Organization stakeholders (including colleagues, customers, consumers, etc.)					
Other required details					
Revision number	Writing start date	Date of completion of writing	Prepared by	Approved by	Description
00	2025-2-24	2025-2-24	Amir Hossein Haratian	Amir Rafie	Initial writing
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					

Table of contents

General Specifications of Potassium Chloride	4
Physical and Chemical Properties	4
Technical Specifications of Potassium Chloride.....	4

Potassium Chloride Technical Data Sheet

General Specifications of Potassium Chloride

Details	Specifications
Product Name	Potassium Chloride
Other Names	Chloro Potash, Sylvite, Muriate of Potash
Chemical Formula	KCl
CAS Number	7447-40-7
Appearance	White or pink crystalline solid
Molecular Weight	74.55 g/mol

Physical and Chemical Properties

Property	Value
Melting Point	770 °C
Boiling Point	1420 °C
Vapor Pressure	Very low (approximately zero)
Solubility	Soluble in water, slightly soluble in alcohol, insoluble in ether
pH (1% solution in water)	5.5 to 8.0
Flammability	Non-flammable

Technical Specifications of Potassium Chloride

Specification	Unit	Product	ISIRI-5285 Standard
Formula	-	KCl	KCl
Appearance	-	White or pink powder	White or pink powder
Potassium Oxide (K ₂ O)	%	61.40%	Minimum 60%
Sodium Chloride (NaCl)	%	2.40%	Maximum 3.5%
Magnesium Chloride (MgCl ₂)	%	0.01%	Maximum 1%
Moisture	%	0.05%	Maximum 0.5%
Size (Crystalline)		(1.7+) mm – 0.4 %	(0.25 ~ 1.7 mm) Minimum 65 %
	%	(1 ~ 1.7 mm) – 8.7 %	
	%	(0.63 ~ 1 mm) – 26.9 %	
	%	(0.4 ~ 0.63 mm) – 37 %	
	%	(0.2 ~ 0.4 mm) – 22 %	
	%	(0.1 ~ 0.2 mm) – 4.3 %	
	%	(0 ~ 0.1 mm) – 0.7 %	
Bulk Density	Kg/m ³	1080 ~ 1180	-
Anti-Caking Agent	-	Added	-