

«AFFIRM»



Chairman of the board  
«Dehkanabad Potash Plant» JSC

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«06» 06 2010 y.

## SUBSTANCE (MATERIAL) SAFETY DATA SHEET

Name technical (acc.to ND)	Potassium chloride
Chemical (IUHFC)	Potassium chloride
Trade	Potassium chloride of pink color
Explanation and name (ND)	(GOST, TC, ISO, etc.)

GOST 4568-95 «Potassium chloride»

OKP Code

3 1 0 4 2 0 5 0 0 0

TN VED Code

Series No. And reg. date POVH

### DANGER CHARACTERISTIC: Allowable zone MAC, mg/m<sup>3</sup> 5 danger class 3

**Brief:** Moderately dangerous concerning impact on human organism. Aerosol causes skin, eyes and respiratory organs irritation. Might present danger for environment.

Main dangerous components	MAC, mg/m <sup>3</sup>	Danger class
Potassium chloride	5	3
Sodiumchloride	5	3

Applicant: «Dehkanabad Potash Plant» JSC

Republic of Uzbekistan, 180405

Kashkadarya region

Dehkanabad district

(name of the organization) (city, country)

Applicant type : Producer

Emergency communication:	+998 75 612 50 05
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**1. Minimum requirements for the content of information in the mineral fertilizers safety data sheet**

№	The name of the section	Content
1.	Identification of the mineral fertilizer and information about the manufacturer or supplier	<p>Name of the substance - Potassium chloride, Fine, Chemical name - Potassium chloride, Molecular formula - KCl, Additional information - Depending on the mass fraction of the main substance and granulometric composition, the following range of potassium chloride is produced:</p> <p>Potassium chloride. GOST 4568-95 TU. Small 1-grade.</p> <p>Manufacturer and supplier - joint-Stock company "Dehkanabad potash plant"</p>
2.	Hazard identification (s)	<p>Hazard class 3 for the effects of aerosol substances on the body - a moderately dangerous substance for the effects on the body</p>
3.	Composition (information about components)	<p>Potassium chloride, K2O, Sodium chloride</p>
4.	First aid measures	<p>If the upper respiratory tract is irritated, remove the victim to fresh air, provide warmth and rest.</p> <p>In case of contact with skin, rinse thoroughly with running water.</p> <p>In case of contact with eyes, wash them with plenty of water.</p> <p>For oral administration (if swallowed) - wash the stomach with plenty of warm water with the addition of activated carbon (1 g/kg body weight). Seek medical attention if necessary.</p> <p>First aid kit: activated carbon</p>
5.	Measures and means to ensure fire and explosion safety	<p>General characteristics of fire hazard - fire and explosion-Proof substance.</p> <p>Recommended means of extinguishing fires - for extinguishing packaging-polypropylene bags, use fire extinguishers of any type, water, sand.</p> <p>Personal protective equipment for fire fighting (PPE of firefighters and personnel) - fire-Resistant suit complete with self-rescuer SPI-20</p>
6.	Measures to prevent and eliminate accidents and emergencies and their consequences	<p>General recommendations - Aspiration in places of overload. Ventilation of industrial premises. Control of the air environment.</p> <p>Recommendations for ensuring the safety of personnel - use PPE to protect the respiratory system, eyes and skin.</p> <p>Necessary actions of a General nature - Isolate the danger zone, remove strangers from the accident zone, if necessary, send them for medical examination.</p> <p>Emergency response actions - Collect contaminated product residues in special containers, paper or polypropylene bags and take them to the industrial waste landfill</p>

		Wash the area with water Avoid contact with toilet water in water, soil		
7.	Rules for storing and handling mineral fertilizers during loading and unloading operations	<p>Product storage conditions - Covered storage areas protected from precipitation.</p> <p>The product Packed in soft containers can be stored in open areas with a hard surface and under a canopy.</p> <p>Store at ambient temperature.</p> <p>Shelf life - guaranteed shelf life – 6 months from the date of manufacture</p> <p>The warranty period of storage of potassium chloride for retail trade is 24 months from the date of manufacture.</p> <p>Recommendations for product transportation - Avoid spills when transporting the product in bulk by rail, river and sea transport.</p> <p>Materials recommended for packaging - Soft specialized container, polypropylene bags with a polyethylene liner</p>		
8.	Exposure controls and personal protective equipment	<p>General recommendation - Avoid direct contact with the product, for which it is necessary to use protective clothing, safety shoes.</p> <p>Follow the rules of personal hygiene, use PPE.</p> <p>Systematically clean the premises and industrial sites from dust and product spills.</p> <p>People who work with KCl must undergo preliminary and periodic medical examinations. Eye protection - protective sealed glasses according to GOST 12.4.013.</p> <p>Hand protection - gloves or cotton gloves.</p> <p>Protective clothing - a suit made of cotton fabric. Rubber boots or leather boots.</p>		
9.	Physical and chemical properties	<p>Appearance - crystalline powder of pink, white with grayish shades or red-brown Granules from pink to red-brown color.</p> <p>The molecular weight is 74.56.</p> <p>The melting point is 768-772 0C.</p> <p>The boiling point is 1406-1413 0C.</p> <p>The heat capacity is 0.16 kal/g.grad.</p> <p>The density of individual crystals is 1.98 g/cm3.</p> <p>pH - 5.5-8.8 (50,000 mg/l of water).</p>		
10.	Stability and reactivity	<p>Stability - a Chemically stable compound.</p> <p>Reactivity - Reacts with acids and alkalis.</p> <p>Substances to avoid contact with - Organic substances, acids, and alkalis.</p>		
11.	Toxicity information			
	Assessment of the degree of danger (toxicity) of exposure to the body	Moderately dangerous substance by its effect on the human body. It has an irritating effect		
	Rates of acute toxicity (DL50)	(DL <sub>50</sub> ) mg/kg	The path is closed.	Type of animal
		2430-2600	t/a	rats
		1500	t/a	mice

		2500	t/a	marine
				pigs
		660-770	t/a	rats
		620-1181	t/a	mice
		39-142	t/a	rats
		117	t/a	mice
	Doses (concentrations) that have a minimal toxic effect (action thresholds, their dimension, route and time of administration, type of animal)	<p>Pccr-10 mg/m<sup>3</sup> , ing., 6 months, rats (by effect on neuromuscular excitability)            EC-51-152 mg/m<sup>3</sup> , ing., 4 h, 6 months, rats (reduced body weight gain, increased neuromuscular excitability, potassium and chlorine concentrations, cholinesterase activity, reduced blood sodium concentration)            Ed-60 mg/kg, in/W, 1 day, woman (nausea, vomiting, disorders of the blood coagulation system)</p>		
	Information about dangerous long-term effects on the body (effects on reproductive function, Carcinogenicity, cumulability, etc.)	<p>Skin-resorptive and sensitizing effects were established            Mutagenic effect not confirmed by IARC            Embryotrophic, gonadotropic, teratogenic, and carcinogenic effects have not been studied.            The cumulative effect is weak.</p>		
12.	Information on the impact on the environment	<p>Assessment of possible environmental impacts (air, soil, water, biota) - may pollute the environment if the rules of storage and transportation are violated</p>		
	Hygienic standards (maximum permissible concentrations in atmospheric air, water objects, soil)	<p>MPC RZ – 5 mg/m<sup>3</sup> hazard class 3            MPC ATM.V.s.s-0,1 mg/m<sup>3</sup>, m. R.-0,3 mg/l, org.smack., CL. dangerous.            MPC soil (according to KCl)-560 mg/kg, water-migration            MPC of fish.household potassium (all water-soluble forms) 50.0 mg/l, San. - Tox., 4E class dangerous; 10.0 mg/l for reservoirs with mineralization up to 100 mg/l; for marine reservoirs 390 mg/l at 13-18 0/00 , Tox.            MPC fish.household.chloride-anion 300 mg/l, San.-current., 4E CL. dangerous. (environmental); for marine reservoirs 11900 mg/l at 12-18 0/00 , Tox., 1kl.dangerous.</p>		
13.	Recommendations for waste disposal	<p>Safety measures for handling waste generated during consumption, storage, transportation, emergencies, etc. - safety measures for waste are the same as for working with the product (see sections 6 and 7 of the PB).            Information about places and methods of neutralization, disposal or disposal of waste substances, including containers (packaging) - spills of potassium chloride can be used for its intended purpose. The released container is disposed of in places of public garbage collection.</p>		
14.	Information transportation (transportation) during	<p>Types of vehicles - Mineral carriers, railway covered wagons, river and sea transport - in the holds of ships with closed hatches, gondola cars (Packed in</p>		

		waterproof soft specialized containers). Transport marking (manipulation signs, basic, additional and informational inscriptions) - Transport marking according to GOST 14192 with the application of the manipulation sign "Protect from sunlight", "Protect from moisture"
15.	Information on national and international legislation	National legislation
	Law of Uzbekistan	Law of the Republic of Uzbekistan "On consumer rights protection" of 26.04.1996 Law of the Republic of Uzbekistan "on protection of atmospheric air" dated 27.12.1996 Law of the Republic of Uzbekistan "On standardization" of 17.01.2020 Law of the Republic of Uzbekistan "On Metrology" dated 07.04.2020 Law of the Republic of Uzbekistan "On nature protection" of 09.12.1992 Law of the Republic of Uzbekistan "On technical regulation" of 24.04.2009
	Documentation governing requirements for the protection of human health and the environment (certificates)	Technological regulations for the production of Potassium chloride Sanitary and epidemiological conclusions on the radiation factor Certificate of conformity
		International law
	Warning labels (hazard symbols, risk phase, etc.)	Safety factors: S: 22-24/25 Do not inhale product aerosol. Avoid contact with skin and eyes
16.	Additional information	Recommendations for use - used as a fertilizer for direct application to the soil and dry mixing, as a raw material for the production of chemical products

#### 17. List of information sources.

1. Technological regulations for the production of potassium chloride.
2. GOST 4568-95 Potassium chloride. Technical conditions.
3. GOST 12.1.005-88 SSBT General sanitary and hygienic requirements for the air of the working area.
4. GOST 12.1.007-76 SSBT harmful substances. Classification and General safety requirements.
5. GOST 12.4.013-97 OCCUPATIONAL SAFETY STANDARDS. Safety glasses. General specifications.
6. GOST 19433-88 Dangerous goods. Classification and labeling.
7. GOST 14192-96 Marking of cargo.
8. Chemist's Handbook vol.2 basic properties of inorganic and organic compounds. Second edition. Publishing House "Chemist". One thousand nine hundred sixty five.
9. Maximum permissible concentrations (MPC) of harmful substances in the air of the working area GN 2.2.5.1313-03.
10. approximate safe levels of exposure to harmful substances in the air of the working area GN 2.2.5.1314-03.



11. Maximum permissible concentrations (MPC) of pollutants in the atmospheric air of populated areas GN 2.1.6.1339-03.
12. Maximum permissible concentrations (MPC) of chemical substances in the water of water bodies of economic, drinking and cultural water use GN 2.1.5.1315-03.
13. List of fishery standards: maximum permissible concentrations (MPC) and approximate safe levels of influence (having put) harmful substances for water in water bodies that are of fishing significance.
14. Rules for transportation of dangerous goods. Annex 2 To the agreement on international freight transport by rail (SMGS), 2005
15. GOST 30333-2007 "safety data sheet of the substance (material). Fundamentals. Information on safety during production, use, storage, transportation, and disposal.».
16. Guidelines for the preparation and registration of the safety data sheet of the substance (material).

Accepted:

First Deputy  
Chairman of the management Board

B.Boynazarov

Deputy Chairman  
boards

J.Samadov

Head of production coordination Department

T.Zaripov

Head of the Department of safety and industrial safety

M.Hasanov

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Head of logistics Department

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Head of technical control Department

D.Choriev

Head of the Central factory laboratory

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Head of the environmental protection Department

T.Jumanov

Introduced

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