

MATERIAL SAFETY DATA SHEET**Product Name:** Potassium fluoride**CAS No.:** 7789-23-3**Version:** 0**1. Identification**

Product Code : 90213, 90505
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
POTASSIUM FLUORIDE	7789-23-3	99- 100%

3. Hazards Identification**Hazard classification****Health hazards**

Acute toxicity (Oral) : Category 3
Acute toxicity (Dermal) : Category 3
Acute toxicity (Inhalation - dust and mist) : Category 3

Labels elements**Hazard symbol**

Signal word : Danger
Hazard statement : Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.

Precautionary statement

Prevention : Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response : IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

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- Storage:** : Store in a well-ventilated place. Keep container tightly closed. Store locked up.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : None.

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Rinse mouth. Call a physician or poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Apply artificial respiration if victim is not breathing. If breathing is difficult, give oxygen. Get medical attention.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
- Most important symptoms/effects, acute and delayed** : Irritating to eyes, respiratory system and skin.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

MATERIAL SAFETY DATA SHEET**Product Name:** Potassium fluoride**CAS No.:** 7789-23-3**Version:** 0**5. Fire fighting measures**

- General fire hazards** : In case of fire and/or explosion do not breathe fumes.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Fire may produce irritating, corrosive and/or toxic gases.
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Methods and material for containment and cleaning up** : Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.
- Notification Procedures** : Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

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7. Handling and Storage

- Precautions for safe handling** : Use personal protective equipment as required. Do not breathe mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling. Avoid contact with eyes. Avoid contact with skin.
 Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection.
- Conditions for safe storage, including any incompatibilities** : Do not store in metal containers. Keep in a cool, well-ventilated place. Store in a dry place. Keep container tightly closed. Store locked up.

8. Exposure Controls Personal Protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
POTASSIUM FLUORIDE - as F	TWA	2.5 mg/m ³	US. ACGIH Threshold Limit Values (2011)
	REL	2.5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	2.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	2.5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989)
POTASSIUM FLUORIDE - Dust.	TWA	2.5 mg/m ³	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Biological limit values			
Chemical identity	Exposure Limit values		Source
POTASSIUM FLUORIDE (Fluoride: Sampling time: Prior to shift.)	2 mg/l (Urine)		ACGIH BEL (03 2012)
POTASSIUM FLUORIDE (Fluoride: Sampling time: End of shift.)	3 mg/l (Urine)		ACGIH BEL (03 2012)

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

- General information** : No data available.
- Eye/face protection** : Wear safety glasses with side shields (or goggles) and a face shield.
- Hand protection** : Chemical resistant gloves.

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Other : Wear suitable protective clothing and gloves.
Respiratory protection : In case of inadequate ventilation use suitable respirator .
Hygiene measures : Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Appearance : White Solid Powder
Odor : Odorless
pH : No data available.
Melting point/freezing point : 860 °C
Initial boiling point and boiling range : 1,505 °C
Flash Point : No data available
Vapor pressure : 0.13 kPa (885 °C)
Vapor density : No data available
Relative density : 2.48 (20 °C)
Solubility in water : Appreciable
Solubility (other) : No data available.
Formula : FK
Molecular Weight : 58.10 g/mol

10. Stability and Reactivity

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable; however, may decompose if heated.
Possibility of hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : Moisture. Contact with incompatible materials.
Incompatible materials : Strong oxidizing agents. Acids. Bromides. Metals.
Hazardous decomposition products : Hydrogen fluoride .

11. Toxicological Information**Information on likely routes of exposure**

Ingestion : Toxic if swallowed.
Inhalation : Toxic if inhaled.
Skin contact : Toxic in contact with skin. Causes skin irritation.
Eye contact : Causes eye irritation.

Information on toxicological effects

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Oral Product	:	LD 50 (Rat): 245 mg/kg
Dermal Product	:	No data available.
Inhalation Product	:	No data available
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Toxic in contact with skin. Causes skin irritation.
Serious eye damage/eye irritation Product	:	Causes eye irritation.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	:	No carcinogenic components identified.
Germ cell mutagenicity		
In vitro Product	:	No mutagenic components identified.
In vivo Product	:	No mutagenic components identified.
Reproductive toxicity Product	:	No components toxic to reproduction.
Specific target organ toxicity - single exposure Product	:	No data available.
Specific target organ toxicity - repeated exposure Product	:	No data available.
Aspiration hazard Product	:	Not classified
Other effects	:	None known.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.

Chronic hazards to the aquatic environment :

Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.
Toxicity to Aquatic Plants Product:	:	No data available.

Persistence and degradability

Biodegradation Product	:	There are no data on the degradability of this product.
BOD/COD ratio Product	:	No data available.
Bioaccumulative potential		

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- Bioconcentration factor (BCF) Product** : No data available on bioaccumulation.
- Partition coefficient n-octanol / water (log Kow) Product** : No data available.
- Mobility in soil** : The product is water soluble and may spread in water systems.
- Other adverse effects** : The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal consideration

- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1812	Potassium fluoride, solid	6.1	III	No
IMDG	UN 1812	Potassium fluoride, solid	6.1	III	No
IATA	UN 1812	Potassium fluoride, solid	6.1	III	No

15. Regulatory Information

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

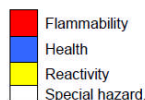
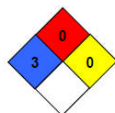
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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16. Other Information**NFPA Hazard ID**

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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