RICCA CHEMICAL COMPANY®

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Potassium fluoride, 20% (w/v)

Product Number R6099020

Other Identifying Product Numbers R6099020-1A, R6099020-4A

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company

Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)	800-424-9300
CHEMTREC (International)	1+ 703-527-3887

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264,P270,P301+P312,P330,P501
Serious Eye Damage / Eye Irritation	Category 2	H319	P264,P280,P305+P351+P338, P337+P313
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372	P260,P264,P270,P314,P501

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

Hazard Number	Hazard Statement
H302	Harmful if swallowed
H319	Causes serious eye irritation
H372	Causes damage to organs through prolonged or repeated exposure

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

Prevention

Precautionary Number	Precautionary Statement
P260	Do not breathe fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice or attention if you feel unwell.
P330	Rinse mouth.
P337+P313	If eye irritation persists: Get medical advice or attention.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

17.3 percent of this mixture consists of ingredient(s) of unknown acute dermal and inhalation toxicity.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
water	Water	7732-18-5	82.75
potassium fluoride	Potassium Fluoride	7789-23-3	17.25

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation, redness, pain, and tearing.

Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Administer with milk, chewable calcium carbonate tablets or milk of magnesia. Vomiting may occur spontaneously. Do not induce. Call a physician immediately.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause irritation and possible burns to the skin. May be absorbed through the skin. Effects may not appear immediately.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Harmful if swallowed Toxic and Corrosive! May be fatal if swallowed. Avoid ingestion and contact with skin, eyes, or clothing. If swallowed, give large quantity of water or milk and induce vomiting. Vomiting may occur spontaneously. Call a physician immediately. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation and possible burns to the skin. May be absorbed through the skin. Effects may not appear immediately. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposures may cause mottling of teeth and bone damage and fluorosis. Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified ligaments, general ill health and joint stiffness.

4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wipe off any excess material from skin and then immediately flush with plenty of soap and water for at least 15 minutes. Apply bandages soaked in Magnesium Sulfate. Administer with milk, chewable calcium carbonate tablets or milk of magnesia. Vomiting may occur spontaneously. Do not induce. Call a physician immediately.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment and Precautions for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Wear gloves to protect from absorption through skin. Cover with soda ash-slaked lime mixture. Scoop into beaker of water. Neutralize with 6 Normal Hydrochloric Acid. Flush neutralized solution to drain with excess water.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Potassium Fluoride	7789-23-3	"2.5 mg/m3 TWA (as F)" As Fluorides [RR-02792-9]

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

No limits found.

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Potassium Fluoride	7789-23-3	"2.5 mg/m3 TWA (as F)" As Fluorides [RR-02792-9]

8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	Liquid
Color:	Clear, colorless
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Approximately 0°C
Boiling Point/Range:	Approximately 100°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	Not flammable
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	Data not available.
Kinematic Viscosity:	Data not available.
Solubility:	Data not available.
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.1600
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Platinum plus Bromine Trifluoride, reacts with strong acids to form Hydrogen Fluoride. Corrodes glass and porcelain.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 1420 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Potassium Fluoride	7789-23-3	Oral LD50 Rat 245 mg/kg (Source: NLM_CIP)

Acute Toxicity - Dermal Exposure:

No information found.

Acute Toxicity - Inhalation Exposure:

No information found.

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Potassium Fluoride	7789-23-3	Group 3 (Not Classified) - Supplement 7 [1987] (used in drinking-water); Monograph 27 [1982] As Fluorides, inorganic

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
	No data found.	

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
	No data found.	

11.3 Additional Toxicology Information:

Harmful if swallowed. Causes serious eye irritation. Causes damage to organs through prolonged or repeated exposure.

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SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Potassium Fluoride	7789-23-3	Freshwater Fish	Acute	LC50 96 h Ctenopharyngodon idella 9.3 mg/L (IUCLID)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Sizes: 1 L, 4 L

UN Number: UN3422

Proper Shipping Name: Potassium Fluoride solution

Hazard Class: 6.1

Packing Group: III

Hazard Label(s):



14.2 Transportation by Air - International Air Transport Association (IATA)

Sizes: 1 L, 4 L

UN Number: UN3422

Proper Shipping Name: Potassium Fluoride solution

Hazard Class: 6.1

Packing Group: III

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 1 L, 4 L

UN Number: UN3422

Proper Shipping Name: POTASSIUM FLUORIDE SOLUTION

Hazard Class: 6.1

Packing Group: III

Hazard Label(s):



SECTION 15: Regulatory Information

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15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ
		No data found.

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List
		No data found.

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Potassium Fluoride	7789-23-3	sn 1565

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Water	7732-18-5	DSL	Present
Potassium Fluoride	7789-23-3	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Water	7732-18-5	Present [XU] (ACTIVE)
Potassium Fluoride	7789-23-3	Present (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Water	7732-18-5	EINECS	231-791-2
Potassium Fluoride	7789-23-3	EINECS	232-151-5

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Water	7732-18-5	Present [32224]
Potassium Fluoride	7789-23-3	Present [13190]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Water	7732-18-5	Annex 1	Present [KE-35400]
Potassium Fluoride	7789-23-3	Annex 1	Present [KE-29114]

15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)
Potassium Fluoride	7789-23-3	(1)-322

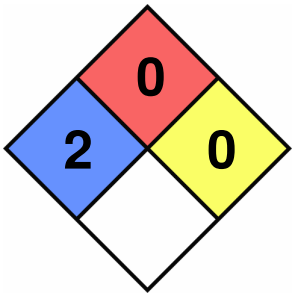
SECTION 16: Other Information

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16.1 National Fire Protection Associate (NFPA) Rating

Health:	2
Flammability:	0
Reactivity	0
Special Hazard:	



16.2 Document Revision

Last Revision Date:
2026-05-24

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.