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 VeriSpec® Tungsten Standard for ICP 10 g/L in 2% HNO_3/HF
Manufactured and Tested in an ISO 17025/ISO 17034 Accredited Facility

Product Number RV010428

Other Identifying Product Numbers RV010428-100N

1.2. Recommended Use and Restrictions on Use

Calibration Standard

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 3	H301	P264,P270,P301+P310,P321,P330, P405,P501
Acute Toxicity - Inhalation (Vapors)	Category 4	H332	P261,P271,P304+P340,P312
Corrosive to the Respiratory Tract	Corrosive		
Skin Corrosion / Irritation	Category 1	H314	P260,P264,P280,P301+P330+P331, P303+P361+P353,P363,P304+P340, P310,P321,P305+P351+P338,P405, P501
Serious Eye Damage / Eye Irritation	Category 1	H318	P280,P305+P351+P338,P310
Corrosive to Metals	Category 1	H290	P234,P390,P406
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
H290	May be corrosive to metals
H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled
H372	Causes damage to organs through prolonged or repeated exposure
	Corrosive to the respiratory tract

Precautionary Statements:

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

Prevention

Precautionary Number	Precautionary Statement
P234	Keep only in original packaging.
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.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center or doctor.
P314	Get medical advice or attention if you feel unwell.
P321	Specific treatment: Treat with calcium gluconate gel.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.

Storage

Precautionary Number	Precautionary Statement
P405	Store locked up.

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

3.6 percent of this mixture consists of ingredient(s) of unknown acute oral toxicity. 8.6 percent of this mixture consists of ingredient(s) of unknown acute dermal toxicity. 1.6 percent of this mixture consists of ingredient(s) of unknown acute inhalation toxicity.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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	91.38
fluorane	Hydrofluoric Acid	7664-39-3	5.00
nitric acid	Nitric Acid	7697-37-2	2.00
hexafluorotungsten	Tungsten (VI) Fluoride	7783-82-6	1.62

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.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Toxic if swallowed

4.3. Immediate Medical Attention or Special Treatment Needed

Immediately call a poison center or doctor. Specific treatment: Treat with calcium gluconate gel.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Not considered to be a fire or explosion hazard.

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

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Absorb with suitable material and dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up.

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
Hydrofluoric Acid	7664-39-3	3 ppm TWA (as F)
Nitric Acid	7697-37-2	2 ppm TWA; 5 mg/m3 TWA
Tungsten (VI) Fluoride	7783-82-6	"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)

Chemical Name	CAS Number	Exposure Limit
Hydrofluoric Acid	7664-39-3	2 ppm Ceiling (as F)

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

Chemical Name	CAS Number	Exposure Limit
Nitric Acid	7697-37-2	4 ppm STEL

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

Chemical Name	CAS Number	Exposure Limit
Hydrofluoric Acid	7664-39-3	0.5 ppm TWA (as F)
Nitric Acid	7697-37-2	2 ppm TWA
Tungsten (VI) Fluoride	7783-82-6	"3 mg/m3 TWA (in the absence of Cobalt, respirable particulate matter, as W)" As Tungsten compounds [RR-00616-6]; "2.5 mg/m3 TWA (as F)" As Fluorides [RR-02792-9]

8.2. Engineering Controls

Use only outdoors or in a well-ventilated area.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Wear protective gloves and eye protection.

Skin Protection: Wear protective gloves and eye protection.

Eye Protection: Wear protective gloves and eye protection.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	Liquid
Color:	Data not available.
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Data not available.
Boiling Point/Range:	Data not available.
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:	<2
Kinematic Viscosity:	Data not available.
Solubility:	Data not available.
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.00
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

Keep only in original packaging.

10.4. Hazardous Decomposition Products

None identified.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 100 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Hydrofluoric Acid	7664-39-3	Oral LD50 Acute Toxicity Estimate 5 mg/kg (Source: Canada_WHMIS)

Acute Toxicity - Dermal Exposure:

No information found.

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 14.3880 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Hydrofluoric Acid	7664-39-3	Inhalation LC50 Rat 0.79 mg/L 1 h (vapor, Source: JAPAN_GHS)
Nitric Acid	7697-37-2	Inhalation LC50 Rat 3.22 mg/L 4 h (Source: WHMIS)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Nitric Acid	7697-37-2	Group 1 (Carcinogenic to Humans) - Monograph 100F [2012]; Monograph 54 [1992] As Acid mists, strong 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:

Toxic if swallowed. Causes severe skin burns and eye damage. Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure. Corrosive to the respiratory tract.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Hydrofluoric Acid	7664-39-3	Water Flea	Acute	EC50 48 h Daphnia species 270 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: 30 mL, 50 mL, 100 mL, 250 mL, 500 mL

UN Number: UN2922

Proper Shipping Name: Corrosive liquids, toxic, n.o.s. (Hydrofluoric Acid, Nitric Acid, Tungstenhexafluoride)

Hazard Class: 8 (6.1)

Packing Group: II

Hazard Label(s):





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

Sizes: 30 mL, 50 mL, 100 mL, 250 mL, 500 mL

UN Number: UN2922

Proper Shipping Name: Corrosive liquids, toxic, n.o.s. (Hydrofluoric Acid, Nitric Acid, Tungstenhexafluoride)

Hazard Class: 8 (6.1)

Packing Group: II

Hazard Label(s):





14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 30 mL, 50 mL, 100 mL, 250 mL, 500 mL

UN Number: UN2922

Proper Shipping Name: CORROSIVE LIQUIDS, TOXIC, N.O.S. (hydrofluoric acid, nitric acid, tungstenhexafluoride)

Hazard Class: 8 (6.1)

Packing Group: II

Hazard Label(s):





SECTION 15: Regulatory Information

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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	TPQ
Hydrofluoric Acid	7664-39-3	100 lb TPQ	100 lb EPCRA RQ
Nitric Acid	7697-37-2	1000 lb TPQ	1000 lb EPCRA RQ

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

Chemical Name	CAS Number	Regulatory Information
Hydrofluoric Acid	7664-39-3	100 lb final RQ; 45.4 kg final RQ
Nitric Acid	7697-37-2	1000 lb final RQ; 454 kg final RQ

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

Chemical Name	CAS Number	List	Regulatory Information
Hydrofluoric Acid	7664-39-3	Emission Reporting	1.0 % de minimis concentration
Nitric Acid	7697-37-2	Emission Reporting	1.0 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Hydrofluoric Acid	7664-39-3	Extraordinarily hazardous
Nitric Acid	7697-37-2	Extraordinarily hazardous

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Hydrofluoric Acid	7664-39-3	Environmental hazard
Nitric Acid	7697-37-2	Environmental hazard

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

Chemical Name	CAS Number	Regulatory Information
Hydrofluoric Acid	7664-39-3	sn 3759
Nitric Acid	7697-37-2	sn 1356
Tungsten (VI) Fluoride	7783-82-6	sn 1961

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
Hydrofluoric Acid	7664-39-3	DSL	Present
Nitric Acid	7697-37-2	DSL	Present
Water	7732-18-5	DSL	Present
Tungsten (VI) Fluoride	7783-82-6	DSL	Present

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

Chemical Name	CAS Number	Status
Hydrofluoric Acid	7664-39-3	Present (ACTIVE)
Nitric Acid	7697-37-2	Present (ACTIVE)
Water	7732-18-5	Present [XU] (ACTIVE)
Tungsten (VI) Fluoride	7783-82-6	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
Hydrofluoric Acid	7664-39-3	EINECS	231-634-8
Nitric Acid	7697-37-2	EINECS	231-714-2
Water	7732-18-5	EINECS	231-791-2
Tungsten (VI) Fluoride	7783-82-6	EINECS	232-029-1

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

Chemical Name	CAS Number	Status
Hydrofluoric Acid	7664-39-3	Present [27221]
Nitric Acid	7697-37-2	Present [35578]
Water	7732-18-5	Present [32224]
Tungsten (VI) Fluoride	7783-82-6	Present [23309]

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

Chemical Name	CAS Number	List	Status
Hydrofluoric Acid	7664-39-3	Annex 1	Present [KE-20198]
Nitric Acid	7697-37-2	Annex 1	Present [KE-25911]
Water	7732-18-5	Annex 1	Present [KE-35400]
Tungsten (VI) Fluoride	7783-82-6	Annex 1	Present [KE-35012]

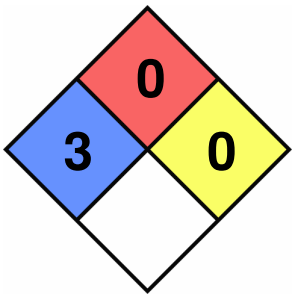
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Hydrofluoric Acid	7664-39-3	(1)-306
Nitric Acid	7697-37-2	(1)-394
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)
Tungsten (VI) Fluoride	7783-82-6	(1)-1177

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 3
Flammability: 0
Reactivity 0
Special Hazard:



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

16.2 Document Revision

Last Revision Date:
2026-05-22

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.