

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation** Chromic Acid, 10% (w/v)

**Product Number** 2077

**Other Identifying Product Numbers** 2077-1, 2077-16, 2077-32, 2077-5PT

### 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
Acute Toxicity - Dermal	Category 3	H311	P280,P302+P352,P312,P321, P361+P364,P405,P501
Acute Toxicity - Inhalation (Dusts and Mists)	Category 4	H332	P261,P271,P304+P340,P312
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
Respiratory Sensitization	Category 1	H334	P261,P284,P304+P340,P342+P311, P501
Skin Sensitization	Category 1A	H317	P261,P272,P280,P302+P352, P333+P313,P321,P362+P364,P501
Germ Cell Mutagenicity	Category 2	H341	P201,P202,P280,P308+P313,P405, P501
Carcinogenicity	Category 1A	H350	P201,P202,P280,P308+P313,P405, P501
Reproductive Toxicity	Category 1B	H360	P201,P202,P280,P308+P313,P405, P501
Hazardous to the Aquatic Environment, Short-term (Acute)	Acute 2	H401	P273,P501
Hazardous to the Aquatic Environment, Long-term (Chronic)	Chronic 2	H411	P273,P391,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.

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Hazard Number	Hazard Statement
H302+H332	Harmful if swallowed or if inhaled
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer
H360	May damage fertility or the unborn child
H411	Toxic to aquatic life with long lasting effects

## Precautionary Statements:

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

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## Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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.
P272	Contaminated work clothing must not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P284	In case of inadequate ventilation wear respiratory protection.

## Response

Precautionary Number	Precautionary Statement
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
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.
P308+P313	If exposed or concerned: Get medical advice or attention.
P310	Immediately call a poison center or doctor.
P330	Rinse mouth.
P342+P311	If experiencing respiratory symptoms: Call a poison center or doctor.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P391	Collect spillage.

## 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.

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## 2.4. Ingredients of Unknown Acute Toxicity

This product does not contain any ingredients of unknown acute 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	90.66
chromium (VI) oxide	Chromium (VI) Oxide; Chromic acid; Chromium trioxide	1333-82-0	9.34

## 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. Corrosive! Causes irritation and burns. Can cause burns that may lead to permanent impairment of vision, including blindness.

**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

**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. May cause irritation, dermatitis, redness and pain. May be absorbed through skin on prolonged exposure.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Toxic in contact with skin DANGER! Corrosive. May be harmful if swallowed. Contains Hexavalent Chromium compound, which is a known carcinogen. If swallowed, do not induce vomiting. Give large quantity of water. Call a physician. Wash areas of contact with water for at least 15 minutes. For eyes, get medical attention. EYE CONTACT: Corrosive! Causes irritation and burns. Can cause burns that may lead to permanent impairment of vision, including blindness. SKIN CONTACT: May cause irritation, dermatitis, redness and pain. May be absorbed through skin on prolonged exposure. CHRONIC EFFECTS / CARCINOGENICITY: May affect the skin, liver, kidneys and blood.

### 4.3. Immediate Medical Attention or Special Treatment Needed

Immediately call a poison center or doctor. Irrigate immediately with large quantity of water for at least 15 minutes. Get medical attention immediately. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Immediately flush with plenty of water for at least 15 minutes. Remove any contaminated clothing. Wash with soap and water, then flush again with water. Call a physician if irritation develops. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.



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### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Dry chemical, foam, water, or carbon dioxide.

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

Slight fire hazard when subject to high heat, containers may explode in fire.

#### 5.3. Special Protective Equipment and Precautions for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### 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

Collect liquid and dilute with water. Do not flush to sewer. Containerize for proper disposal. For larger spills, absorb with suitable material (vermiculite, clay, etc.). Collect the solid residue and save for disposal.

### SECTION 7: Handling and Storage

#### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Empty containers may be hazardous since they retain product residues. Store at room temperature.

### SECTION 8: Exposure Controls / Personal Protection

#### 8.1. Exposure Limits

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

Chemical Name	CAS Number	Exposure Limit
Chromium (VI) Oxide	1333-82-0	"5 µg/m <sup>3</sup> TWA" As Chromium(VI) compounds [RR-00026-0]

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

Chemical Name	CAS Number	Exposure Limit
Chromium (VI) Oxide	1333-82-0	"0.1 mg/m <sup>3</sup> Ceiling (applies to any operations or sectors for which the Hexavalent Chromium standard [29 CFR 1910.1026] is stayed or is otherwise not in effect, as CrO <sub>3</sub> )" As Chromates [RR-01554-3]

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

No limits found.

## U.S. OSHA - Specifically Regulated Chemicals

Chemical Name	CAS Number	Exposure Limit
Chromium (VI) Oxide	1333-82-0	"5 µg/m <sup>3</sup> TWA (See 29 CFR 1910.1026, as Cr); 2.5 µg/m <sup>3</sup> Action Level (as Cr)" As Chromium(VI) compounds [RR-00026-0]

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

No limits found.

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

Chemical Name	CAS Number	Exposure Limit
Chromium (VI) Oxide	1333-82-0	"0.0005 mg/m <sup>3</sup> STEL (inhalable particulate matter, as Cr(VI))" As Hexavalent chromium inorganic water-soluble compounds [RR-53130-6]

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

Chemical Name	CAS Number	Exposure Limit
Chromium (VI) Oxide	1333-82-0	"0.0002 mg/m <sup>3</sup> TWA (inhalable particulate matter, as Cr(VI))" As Hexavalent chromium inorganic water-soluble compounds [RR-53130-6]

## 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. If necessary, wear a respirator equipped with an acid gas cartridge.

**Skin Protection:** Chemical resistant gloves.

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**Eye Protection:** Safety glasses or goggles.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

<b>Physical State:</b>	liquid
<b>Color:</b>	Orange
<b>Odor:</b>	Data not available.
<b>Odor Threshold:</b>	Data not available.
<b>Melting/Freezing Point:</b>	Data not available.
<b>Boiling Point/Range:</b>	Data not available.
<b>Flammability:</b>	Data not available.
<b>Flammability/Explosive Limits:</b>	Data not available.
<b>Flash Point:</b>	Not flammable
<b>Auto-Ignition Temperature:</b>	Data not available.
<b>Decomposition Temperature:</b>	Data not available.
<b>pH:</b>	< 2
<b>Kinematic Viscosity:</b>	Data not available.
<b>Solubility:</b>	miscible
<b>Vapor Pressure:</b>	Data not available.
<b>Evaporation Rate:</b>	Data not available.
<b>Relative Density:</b>	1.07
<b>Relative Vapor Density:</b>	Data not available.
<b>Particle Characteristics:</b>	Data not available.
<b>Partition Coefficient n-octanol/water, log</b>	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

Ordinary combustible materials (such as paper, wood, cloth and oil), halogens, reducing agents, organic compounds, hydrogen sulfide, phosphorus and heat. Contact with combustible material may cause fire.

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## 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 509 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Chromium (VI) Oxide	1333-82-0	Oral LD50 Rat 47.6 mg/kg (Source: Canada_WHMIS)

#### Acute Toxicity - Dermal Exposure:

Dermal acute toxicity estimate (ATE): 610 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Chromium (VI) Oxide	1333-82-0	Dermal LD50 Rabbit 57 mg/kg (Source: OECD_SIDS)

#### Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, dust or mist): 2.3233 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Chromium (VI) Oxide	1333-82-0	Inhalation LC50 Rat 217 mg/m <sup>3</sup> 4 h (aerosol, Source: EU_RAR)

### 11.2 Carcinogenicity:

#### International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Chromium (VI) Oxide	1333-82-0	Group 1 (Carcinogenic to Humans) - Monograph 49 [1990] (listed under Chromium[VI]); Supplement 7 [1987]; Monograph 23 [1980]; Monograph 2 [1973]

#### National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Chromium (VI) Oxide	1333-82-0	Known Human Carcinogen (listed under Chromium hexavalent compounds)

#### U.S. OSHA specifically regulated carcinogens

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Chemical Name	CAS Number	Classification
Chromium (VI) Oxide	1333-82-0	"see 29 CFR 1910.1026" As Chromium(VI) compounds [RR-00026-0]

## 11.3 Additional Toxicology Information:

Harmful if swallowed or if inhaled. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Chromium (VI) Oxide	1333-82-0	Freshwater Fish	Acute	LC50 96 h Colisa fasciatus 40 mg/L [static] (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.

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### SECTION 14: Transportation Information

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

**Sizes:** 1 L, 2.5 L, 4 L, 500 mL

**UN Number:** UN1755

**Proper Shipping Name:** Chromic Acid Solution

**Hazard Class:** 8

**Packing Group:** II

**Hazard Label(s):**



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

**Sizes:** 1 L, 2.5 L, 4 L, 500 mL

**UN Number:** UN1755

**Proper Shipping Name:** Chromic Acid Solution

**Hazard Class:** 8

**Packing Group:** II

**Hazard Label(s):**



#### 14.3 Transportation of Dangerous Goods (TDG, Canada)

**Sizes:** 1 L, 2.5 L, 4 L, 500 mL

**UN Number:** UN1755

**Proper Shipping Name:** CHROMIC ACID SOLUTION

**Hazard Class:** 8

**Packing Group:** II

**Hazard Label(s):**



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## SECTION 15: Regulatory Information

### 15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
Chromium (VI) Oxide	1333-82-0	"5 µg/m <sup>3</sup> TWA (See 29 CFR 1910.1026, as Cr); 2.5 µg/m <sup>3</sup> Action Level (as Cr)" As Chromium(VI) compounds [RR-00026-0]

### 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	Regulatory Information
Chromium (VI) Oxide	1333-82-0	Emission Reporting	"0.1 % de minimis concentration (includes any unique chemical substance that contains Chromium as part of that chemical's infrastructure except for Chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the Chromite ore processing residue (COPR), no de minimis concentration has been assigned to this chemical category, listed under Chemical Category N090)" As Chromium(VI) compounds [RR-00026-0]

### 15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Chromium (VI) Oxide	1333-82-0	Carcinogen; Extraordinarily hazardous

### 15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Chromium (VI) Oxide	1333-82-0	Special hazardous substance

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

Chemical Name	CAS Number	Regulatory Information
Chromium (VI) Oxide	1333-82-0	sn 0437

## 15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Chromium (VI) Oxide	1333-82-0	"carcinogen, 2/27/1987" As Chromium hexavalent compounds [RR-00026-0]
Chromium (VI) Oxide	1333-82-0	"developmental toxicity, 12/19/2008" As Chromium(VI) compounds [RR-00026-0]
Chromium (VI) Oxide	1333-82-0	"male reproductive toxicity, 12/19/08" As Chromium hexavalent compounds [RR-00026-0]
Chromium (VI) Oxide	1333-82-0	"female reproductive toxicity 12/19/08" As Chromium hexavalent compounds [RR-00026-0]

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

Chemical Name	CAS Number	List	Status
Chromium (VI) Oxide	1333-82-0	DSL	Present
Water	7732-18-5	DSL	Present

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

Chemical Name	CAS Number	Status
Chromium (VI) Oxide	1333-82-0	Present [R] (ACTIVE)
Water	7732-18-5	Present [XU] (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
Chromium (VI) Oxide	1333-82-0	EINECS	215-607-8
Water	7732-18-5	EINECS	231-791-2

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

Chemical Name	CAS Number	Status
Chromium (VI) Oxide	1333-82-0	Present [29716]
Water	7732-18-5	Present [32224]

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

Chemical Name	CAS Number	List	Status
Chromium (VI) Oxide	1333-82-0	Annex 1	Present [KE-06020]
Chromium (VI) Oxide	1333-82-0	Annex 3	"Present (06-5-10)" As Chromium(6+) compounds [RR-00026-0]
Water	7732-18-5	Annex 1	Present [KE-35400]

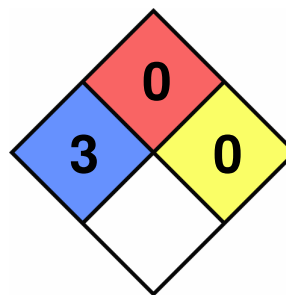
## 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Chromium (VI) Oxide	1333-82-0	(1)-284
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)

## SECTION 16: Other Information

### 16.1 National Fire Protection Associate (NFPA) Rating

**Health:** 3  
**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.