

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Chromic acid, 3%	
CAS numbers	Water	7732-18-5
	Chromium Oxide	1333-82-0
Synonyms	None	

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	General laboratory reagent
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Hazard Class	Category	Code
Acute toxicity - Oral	3	H301
Acute toxicity - Dermal	4	H312
Acute toxicity - Inhalation	4	H332
Skin Corrosion/Irritation	1	H314
Eye Damage/Irritation	1	H318
Respiratory Sensitizer	1	H334
Skin Sensitizer	1	H317

Germ Cell Mutagenicity	2	H341
Carcinogenicity	1	H350
Reproductive toxicity	1	H360
Hazardous to Aquatic Environment - Acute	2	H401
Hazardous to Aquatic Environment - Chronic	2	H411

2.2 GHS Label elements, including precautionary statements



Signal Word Danger

Hazard statements

Number	Statement
H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H332	Causes severe skin burns and eye damage.
H314	May cause an allergic skin reaction.
H318	Causes serious eye damage
H334	Harmful if inhaled.
H317	May cause allergies, 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.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements

Number	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, mists, vapors, or sprays.
P261	Avoid breathing fumes, mists, vapors, or sprays.
P264	Wash arms, hands, and face thoroughly after handling.
P270	Do not eat, drink, or smoke while using this product.
P271	Use only in outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the work area.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or a physician.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P341	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338	IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P308+P313	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue
P310	Immediately call a POISON CONTROL center or physician.
P312	Call a POISON CONTROL center or physician if you feel unwell.
P321	Specific treatment (wash areas of contact with water immediately.)
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CONTROL center or physician.
P362	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal, and international guidelines.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No information available

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Weight %
Water	Aqua, H ₂ O	7732-18-5	96.03-97.97%
Chromium (VI) Oxide	CrO ₃ , Chromium Trioxide	1333-82-0	2.97-3.03%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	No information available
If inhaled	If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water. May cause irritation, dermatitis, and pain. May be absorbed through skin or prolonged exposure.
In case of eye contact	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.

If swallowed

Rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Toxic if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. 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. 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 Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). 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.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media Dry chemical, foam, water, or Carbon dioxide.

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

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.

5.4 Further information

No information available.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

6.2 Environmental precautions

No information available.

6.3 Methods and materials for containment and cleaning up

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.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin.

Hygiene measures

No information available

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store locked up. Protect from freezing and physical damage. Empty containers may be hazardous since they retain product residues. Store at room temperature.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Chromium (VI) Oxide	PEL	2.5 µg/m ³ Action level
	TWA	5 µg/m ³
	PEL-Ceiling	0.1 µg/m ³ 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 CrO₃).

US. ACGIH Threshold Limit Values

Component	Type	Value
Chromium (VI) Oxide	TLV-STEL	0.0005 mg/m3
	TLV-TWA	0.0002 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

No information available

Biological occupational exposure limits

No information available

8.2 Exposure controls

Appropriate engineering controls

Use only outdoors or in a well-ventilated area. No specific controls are needed. Normal room ventilation is adequate.

Personal protective equipment

Eye/face protection

Wear protective gloves and eye protection. Safety glasses or goggles.

Skin protection

Wear protective gloves and eye protection. Chemical resistant gloves.

Body Protection

No information available

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. If necessary, wear a respirator equipped with an acid gas cartridge.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Orange liquid
Odor	No information available
Odor Threshold	No information available
pH	Acidic
Melting Point/Range	Approximately 0°C
Boiling Point/Range	Approximately 100°C
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	No information available

Vapor Pressure	No information available
Vapor Density	No information available
Density	1.04
Solubility	Miscible
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	H ₂ O, CrO ₃
Molecular Weight	Not applicable
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

No information available

10.4 Conditions to avoid

Contact with combustible materials may cause fire.

10.5 Incompatible materials

Ordinarily combustible materials (such as paper, wood, cloth, and oil), halogens, reducing agents, organic compounds, hydrogen sulfide, phosphorus and heat.

10.6 Hazardous decomposition products

Will not occur.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Oral exposure: Toxic if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Rinse mouth. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Dermal exposure: Harmful in contact with skin. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Specific treatment (Wash areas of contact with water immediately). Take off contaminated clothing and wash it before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Inhalation exposure: Harmful if inhaled. Avoid breathing fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Other information: LD50, Oral, Rat: 80 mg/kg (Chromium Trioxide), respiratory, hair and gastrointestinal effects noted.

Skin corrosion/irritation

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious eye damage/eye irritation

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing fumes, mist, vapors, or spray. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Germ cell mutagenicity

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific target organ toxicity - single exposure

Not applicable

Specific target organ toxicity - repeated exposure

Not applicable

Reproductive toxicity

as May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Chronic effects

No information available.

11.2 Additional Information

No information available

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations. Toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations.

12.2 Persistence and degradability

No information available

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

Product	Test	Species	Test Results
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Chromium Trioxide	LC50	Pimephales promelas (fathead minnow)	33.2 mg/l - 96h
Chromium Trioxide	EC50	Daphnia magna (water flea)	.035 mg/l - 48h
Chromium Trioxide	NOEC	Poecilia reticulata (guppy)	3.5 mg/l - 28d
Chromium Trioxide	NOEC	Daphnia magna (water flea)	18 mg/l - 21d

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN number: UN1755
 Proper shipping name: Chromic Acid Solution
 Hazard Class: 8
 Subsidiary risk: No information available
 Packaging Group: III

Environmental hazards



IATA

UN number: UN1755
 Proper shipping name: Chromic Acid Solution
 Hazard Class: 8
 Subsidiary risk: No information available
 Packaging Group: III
 Environmental hazards: No information available

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Chromium (VI) Oxide (CAS # 1333-82-0): Present [R] (ACTIVE)
 Water (CAS # 7732-18-5): Present (ACTIVE)

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Chromium (VI) Oxide (CAS # 1333-82-0): "5 µg/m³ TWA (See 29 CFR 1910.1026, as Cr); 2.5 µg/m³ Action Level (as Cr)" As Chromium(VI) compounds [RR-00026-0]

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed

SARA 311/312 Hazardous

Chromium trioxide: Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 (TRI reporting)

Chromium (VI) Oxide (CAS # 1333-82-0): "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]

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Wc

Not regulated

Food and Drug Administration (FDA)

Not regulated

US state regulations

US. Massachusetts RTK - Substance List

Listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

US. Rhode Island RTK

Listed

California Proposition 65

Listed

SECTION 16: Other information

Revision date: 06/07/2024

Revision number: 0

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

