

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Chromic Acid 35% Solution
CAS number	1333-82-0
Synonyms	N/A

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

Identified uses	Laboratory chemicals.
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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)

Acute Oral Toxicity	Category 3
Acute Dermal Toxicity	Category 3
Acute Inhalation Toxicity	Category 2
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1

Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 2
Specific Target Organ Toxicity (repeated exposure)	Category 1
Oxidizing Liquids	Category 3

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	<p>Causes severe skin burns and eye damage. Fatal if inhaled. Toxic if swallowed. Toxic in contact with skin. May cause an allergic skin reaction. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May intensify fire; oxidizer.</p>
Precautionary statements	<p>Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/openflames/hot surfaces. No smoking. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles.</p> <p>Response: Immediately call a POISON CENTER or doctor.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical advice/attention.</p>

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.

Fire: In case of fire, use water to extinguish. Do not use dry chemicals or foams. CO2 or Halon may provide limited control.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an approved waste disposal plant.

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

Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	Aqua; H2O	7732-18-5	65%
Chromium trioxide	Chromium (VI) oxide; CrO3	1333-82-0	35%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious, or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician immediately.

In case of skin contact Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Continue flushing with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician immediately.

In case of eye contact Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

If swallowed Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If victim is conscious, give water or milk. Immediate medical attention is required. Call a physician or Poison Control Center immediately. Toxic if swallowed.

4.2 Most important symptoms and effects, both acute and delayed

Severe skin and eye irritation or burns. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Causes digestive (gastrointestinal) tract irritation. May cause gastrointestinal (digestive) tract burns. May cause abdominal pain, nausea, vomiting, diarrhea. May affect the liver. It may affect the kidneys.

4.3 Indication of any immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water.

Unsuitable extinguishing media Dry chemical. Foam. Halons. CO2 may be of no value in extinguishing fires involving oxidizers and may only provide limited control.

5.2 Specific hazards arising from the substance or mixture

Oxidizer. Keep away from combustible materials (wood, paper, oil, clothing, etc.). The product is not flammable, but it may cause fire when in contact with other material. Contact with combustible or organic materials may cause fire. Will accelerate burning when involved in a fire. Container explosion may occur under fire conditions or when heated.

5.3 Special protective equipment and precautions for firefighters

For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. DO NOT use combustible materials such as sawdust. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.
Lower No data available.
Sensitivity to Mechanical Impact No information available.
Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	OX

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, or clothing. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Keep combustibles (wood, paper, oil, clothing, etc.) away from spilled material.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements, or confined areas.

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand, or earth). Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Do not use combustible materials such as paper towels, sawdust, clothing, etc. to clean up spill. Clean contaminated surface thoroughly.

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

Wear personal protective equipment. Avoid contact with skin, eyes, and clothing. Do not ingest. Do not breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation. Keep away from incompatible materials.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed. Keep in a well-ventilated place. Store at room temperature in the original container. May corrode metallic surfaces. Do not store in uncoated metallic containers. Store in a segregated and approved area. Do not store near combustible materials. Store away from incompatible materials.

Incompatibilities

Reducing agents. Organic materials. Combustible materials. Metals. Strong bases. Alcohols. Acids.

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 trioxide	(Vacated) Ceiling	0.1 mg/m ³
	Ceiling	0.1 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Chromium trioxide	TWA	0.0002 mg/m ³
	STEL	0.0005 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Chromium trioxide	IDLH	15 mg/m ³
	TWA	0.0002 mg/m ³ Cr

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Personal protective equipment

Eye/face protection

Face protection shield.

Skin protection

Wear suitable gloves. Impervious gloves.

Body Protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

If working with large quantities: Chemical resistant protective suit. Boots.

Respiratory protection

Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

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	Red, dark brown
Odor	Odorless
Odor Threshold	No information available
pH	Acidic
Melting Point/Range	No information available
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	Not applicable
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	No information available
Density	No information available
Solubility	Miscible with water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	CrO3
Molecular Weight	99.99 g/mol
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactive with reducing agents, combustible materials, organic materials, metals, acids, alkalis. Incompatible with ethyl alcohol, spirit nitrous ether, almost every organic substance, bromides, chlorides, iodides, hypophosphites, sulfites, sulfides, hydrocarbons, ketones, methanol, isoamyl alcohol, cyclohexanol, furfuryl, ethylene glycol, glycerol, bromine pentafluoride, hydrogensulfide, butanol, isobutanol, acetaldehyde, propionaldehyde, butylaldehyde, benzaldehyde, butraldehyde, benzene, perlargonic acid, isopropyl acetate, pentyl acetate, ethyl acetate, methylidioxane, dimethylidioxane, acetone, acetic anhydride, alkali metals, halogens, dimethyl formamide, diethyl formamide, potassium permanganate, pyridine, benzylethylaniline, 1,3-dimethylhexahydropyrimidone, oils, greases or any easily oxidizable material. Acetylene is oxidized violently. Reacts violently with diethyl ether. It will react violently with naphthalene, camphor, glycerol, or turpentine. It will ignite ethyl alcohol. Selenium reacts violently with Chromium Trioxide. Can react violently with most metal powders, ammonia, ammoniumsalts, phosphorus, sulfur, acids.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Incompatible materials.

10.5 Incompatible materials

Reducing agents. Organic materials. Combustible materials. Metals. Strong bases. Alcohols. Acids.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Chromium trioxide	80 mg/kg (Rat)	57 mg/kg (Rabbit)	217 mg/m ³ (Rat) 4h

Skin corrosion/irritation

Contact causes severe skin irritation and burns. May cause an allergic skin reaction.

Serious eye damage/eye irritation

Causes burns and risk of serious eye damage. May cause blindness.

Respiratory or skin sensitization

May cause sensitization by inhalation. May cause sensitization by skin contact.

Germ cell mutagenicity

Contains a known or suspected mutagen. May cause genetic defects.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Chromium trioxide	1333-82-0	Group 1	Known	A1	X	A1

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Target Organs: liver, kidney, skin.

Reproductive toxicity

Contains a known or suspected reproductive toxin. Suspected of damaging fertility or the unborn child.

Chronic effects

Skin: Repeated or prolonged skin contact may cause allergic contact dermatitis (allergic skin reaction). May also cause slow-healing skin ulcers ("chrome sores"), particularly if skin is broken. Inhalation: Repeated or prolonged inhalation may cause allergic respiratory reaction. May cause chest discomfort, cough, and/or shortness of breath. Chronic exposure may affect the liver and kidneys.

11.2 Additional Information

No information available.

SECTION 12: Ecological information**12.1 Toxicity**

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Product		Species	Test Results
Chromium trioxide	LC50	Colisa fasciatus	40mg/L, 96h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

Inherently biodegradable.

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

No information available.

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-No	UN1755
Proper Shipping Name	Chromic acid solution
Hazard Class	8
Packing Group	II

IMDG

UN-No	UN1755
Proper Shipping Name	Chromic acid solution
Hazard Class	8
Packing Group	II

IATA

UN-No	UN1755
Proper Shipping Name	Chromic acid solution
Hazard Class	8
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Listed, Chromium trioxide (CAS #1333-82-0), Section 6.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Listed, Chromium trioxide (CAS #1333-82-0).

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

See Section 2 for more information.

SARA 313 (TRI reporting)

Listed, Chromium trioxide (CAS #1333-82-0).

Other federal regulations

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

Listed, Chromium trioxide (CAS #1333-82-0).

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

Not regulated.

Clean Water Act (CWA)

Listed, Chromium trioxide (CAS #1333-82-0).

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

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Listed, Chromium trioxide (CAS #1333-82-0).

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

Listed, Chromium trioxide (CAS #1333-82-0).

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

Listed, Chromium trioxide (CAS #1333-82-0).

California Proposition 65

Listed, Chromium trioxide (CAS #1333-82-0).

SECTION 16: Other information

Issue date: 12/26/2019

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.