

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name Ammonium Dichromate Crystal

CAS number 7789-09-5

Synonyms Dichromic acid, diammonium salt

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

Identified uses Industrial, manufacturing or laboratory use.

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)

Oxidizing solids	Category 2
Acute toxicity, oral	Category 3
Acute toxicity, inhalation	Category 2
Acute toxicity, Dermal	Category 4
Skin corrosion	Category 1B
Serious eye damage	Category 1
Respiratory sensitization	Category 1
skin sensitization	Category 1

Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B
Specific target organ toxicity - repeated exposure	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	May intensify fire; oxidizer. Toxic if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.
Precautionary statements	Keep away from heat/sparks/open flames/hot surface. No smoking. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation, wear respiratory. IF SWALLOWED: Rinse mouth. Do not induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local regulations.

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	Concentration
Ammonium Dichromate	Dichromic acid, diammonium salt	9/5/7789	>99%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
In case of skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
In case of eye contact	Immediately rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
If swallowed	DO NOT INDUCE VOMITING! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes eye burns. May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes skin burns. Toxic if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistance foam, dry chemical, or carbon dioxide. Use appropriate media for adjacent fire. Cool upopened containers with water.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

Emits toxic fumes (oxides of chromium and nitrogen) under fire conditions. (see also Stability and Reactivity section)

5.3 Special protective equipment and precautions for firefighters

Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

5.4 Further information

Flash Point No data 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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

See section 8 for recommendations on the use of personal protective equipment.

6.2 Environmental precautions

Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and place in suitable, closed containers for disposal. Clean surface thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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

See section 8 for recommendations on the use of personal protective equipment. Avoid dust formation. Avoid breathing dust. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Hygiene measures

No information available.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in cool, dry well-ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Do not grind or subject to friction or shock. Isolated storage is recommended.

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
Ammonium Dichromate	CEIL	0.1 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Ammonium Dichromate	PEL	0.05 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Ammonium Dichromate	REL	0.001 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

No information available.

Personal protective equipment

Eye/face protection

Wear chemical safety glasses or goggles and face shield.

Skin and body protection

Wear nitrile or rubber gloves, apron or lab coat.

Respiratory protection

Provide local exhaust, preferable mechanical. Use an approved respirator.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid crystals
Appearance	No information available
Odor	No information available
Odor Threshold	No information available
pH	3-4 at 50 g/l at 25 °C (77 °F)
Melting Point/Range	170 °C (338 °F)
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	2.15 g/cm ³
Solubility	Soluble in water and alcohol.
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	(NH ₄) ₂ Cr ₂ O ₇
Molecular Weight	252.1
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

No information available.

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Will not occur.

10.4 Conditions to avoid

Excess heat.

10.5 Incompatible materials

Strong reducing reagents, alcohols, strong acids.

10.6 Hazardous decomposition products

Oxides of chromium and nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Dichromate	53 mg/kg (rat)	-	160 ppm (rat) 4 hr

Skin corrosion/irritation

Irritation, redness, itchiness.

Serious eye damage/eye irritation

Irritation, redness, itchiness, burning.

Respiratory or skin sensitization

Coughing, irritation, pain.

Germ cell mutagenicity

May alter genetic material. In vivo tests showed mutagenic effects.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Ammonium Dichromate	7789-09-5	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available.

Reproductive toxicity

May cause reproductive disorders.

Chronic effects

Damage to organs. Known to cause cancer.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Ammonium Dichromate	LC50	Leuciscus idus	50 mg/l 48h

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

Very toxic to aquatic life with long lasting effects.

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	UN1439
Proper Shipping Name	AMMONIUM DICHROMATE
Hazard Class	5.1
Packing Group	II

IMDG

UN-No	UN1439
Proper Shipping Name	AMMONIUM DICHROMATE
Hazard Class	5.1
Packing Group	II

IATA

UN-No	UN1439
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Proper Shipping Name AMMONIUM DICHROMATE
Hazard Class 5.1
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.

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed

SARA 304 Emergency release notification

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Listed, Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard.

SARA 313 (TRI reporting)

Listed.

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 Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Not listed

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

Not listed

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

Not listed

California Proposition 65

Listed

SECTION 16: Other information

Issue date: 06/08/2012

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Revision 2: 08/02/2024

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.