

Material Safety Data Sheet



Ammonium Dichromate

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Carolina Biological Supply Company

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CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Ammonium Dichromate
Product Code(s): 84-3888, 84-3890, 84-3908, 84-3910
Size: 100g, 120g, 500g
Chemical Name: Ammonium Dichromate
CAS Number: 7789-09-5
Formula: $(\text{NH}_4)_2\text{Cr}_2\text{O}_7$
Synonyms: Dichromic Acid Ammonium Salt, Diammonium Dichromate
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: DANGER - Very toxic by inhalation and if swallowed. May be fatal if swallowed or inhaled. Harmful in contact with skin. Causes burns. Oxidizer. Flammable. May cause cancer. May cause sensitisation by inhalation and skin contact. May cause heritable genetic damage. May cause harm to the unborn child. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential Health Effects:

Eyes: Causes severe burns and eye damage upon direct contact. Vapor is irritating.

Skin: May cause severe irritation or chemical burns.

Ingestion: May severely irritate or damage digestive tract.

Inhalation: May severely irritate or damage mucous membranes and respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Ammonium Dichromate (CAS#7789-09-5) 99 - 100%
TLV units: N/A
PEL units: OSHA-PEL 5 $\mu\text{g}/\text{m}^3$ (Ceiling)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:

Health: 4

Fire: 1

Reactivity: 3

Extinguisher Media: Water in flooding amounts. Do not use dry chemical, CO₂, or halon.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: 190 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Contact with combustible material may cause fire.

Risk of explosion if heated under confinement.

Fire or excessive heat may produce hazardous decomposition products.

Product is a strong oxidizer.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Avoid contact with skin and eyes.

Keep away from combustible material.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Store in a secure area suitable for oxidizing agents. Store away from flammable materials, organic solvents and combustible materials.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: Acceptable

Other: Acceptable

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 252.06

Boiling Point: N/A

Vapor Density(Air=1): N/A

Percent Volatile by Volume: 0%

Solubility in Water: Soluble

Melting Point: Decomposes at 180 °C

Vapor Pressure: N/A

Specific Gravity (H₂O=1): 2.15

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Odorless orange-red solid.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Acids, Organics, Reducing agents, Water,

Hazardous Decomposition Products: Chromium compounds,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: IV - LD50 - RAT: 30 mg/kg

INH - LC50 - RAT: male 82 mg/m³/4 hr, female 45 mg/m³/4 hr

ORL - LD50 - RAT: male 22 mg/kg, female 19 mg/kg

DERMAL - LD50 - RABBIT: male 763 mg/kg, female 549 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Listed by NTP, IARC as causing cancer. Mutation data cited. Reproductive data cited.

Conditions Aggravated by Overexposure: Respiratory disorders, Skin disorders, Eye disorders,

Target Organs: Eyes, Skin, Respiratory system, Gastrointestinal tract,

Primary Route(s) of Entry: Inhalation and ingestion.

Section 12 - Ecological Data

EPA Waste Numbers: D007

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1439, Ammonium dichromate, 5.1, II

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

WARNING: This product contains a chemical known to the state of California to cause cancer, or birth defects or other reproductive harm.

Hazard Category for SARA Section 311/312 Reporting: Acute Fire Chronic

Name List:

Ammonium Dichromate - No

Chemical Category:

Ammonium Dichromate - Chromium compound

CERCLA Section 103 RQ(lb.): Ammonium Dichromate - 10 lbs (4.54 kg)

RCRA Section 261.33: Ammonium Dichromate - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists

CAS Number Chemical Services Abstract Number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT U.S. Department of Transportation

IARC International Agency of Research on Cancer

N/A Not Available

NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act