

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

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Chromium Nitrate, Reagent

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Chromium Nitrate, Reagent

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25250

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
(724)517-1954

Emergency telephone number:

Fisher Science Education
Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:



Irritant

Skin irritation, category 2
Eye irritation, category 2A



Oxidizing

Oxidizing solids, category 3

Oxidizing solid 3.

Eye Irritation 2.

Skin Irritation 2.

Signal word: Warning

Hazard statements:

May intensify fire; oxidizer.
Causes skin irritation.
Causes serious eye irritation.

Precautionary statements:

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep/Store away from clothing/.../combustible materials.
Take any precaution to avoid mixing with combustibles.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash ... thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

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Continue rinsing.

If eye irritation persists get medical advice/attention.

IF ON SKIN: Wash with soap and water.

Specific treatment (see ... on this label).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

In case of fire: Use ... for extinction.

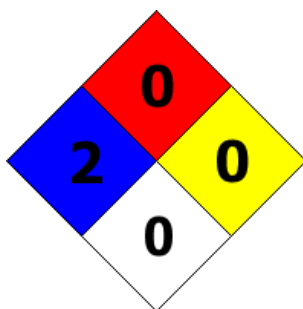
Dispose of contents/container to

Other Non-GHS Classification:

WHMIS



NFPA/HMIS



NFPA SCALE (0-4)

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:

CAS 7789-02-8

Chromium Nitrate, ACS

100 %

Percentages are by weight

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Get immediate medical attention. Do not use mouth-to-mouth. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists.

After skin contact:

Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Destroy contaminated shoes. Get medical assistance. Rinse/flush exposed skin gently using water for 15-20 minutes.

After eye contact:

Rinse or flush exposed eye gently using water for 15-20 minutes. Occasionally lift the upper and lower eyelids

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while rinsing. Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Seek immediate medical attention.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek immediate medical attention.

Most important symptoms and effects, both acute and delayed:

Headache. Shortness of breath. May cause severe eye, skin and respiratory tract irritation with possible burns. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Dizziness. May affect blood, blood forming organs, and respiratory system. May cause methemoglobinemia, which is characterized by chocolatebrown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death. Effects may be delayed.

Indication of any immediate medical attention and special treatment needed:

Notes to Physician: For methemoglobinemia administer oxygen alone or with Methylene blue depending on the methemoglobinemia concentration in the blood. Antidote: Methylene blue, alone or in combination with oxygen is indicated as a treatment in nitrite induced methemoglobinemia. If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. USE WATER ONLY. For large fires flood fire with water from a distance.

Unsuitable extinguishing agents:

Do NOT use dry chemicals, carbon dioxide, halon or foams.

Special hazards arising from the substance or mixture:

Strong oxidizer. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Contact with combustible materials may cause a fire. During a fire, irritating, and highly toxic gases may be generated by thermal decomposition or combustion. Use water with caution and in flooding amounts. Some oxidizers may react explosively with hydrocarbons (fuel). May accelerate burning if involved in a fire. Containers may explode when heated. Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment:

Use proper personal protective equipment. Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions):

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation.

Environmental precautions:

Should not be released into environment. Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

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Methods and material for containment and cleaning up:

Vacuum or sweep up material and place into a suitable disposal container. Collect solids in powder form using vacuum with (HEPA filter). Dust deposits should not be allowed to accumulate on surfaces. Dust may form an explosive mixture if sufficient concentration is released into the atmosphere. Remove all sources of ignition. Do not use combustible materials such as paper towels to clean up spill. Place into properly labeled containers for recovery or disposal.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Wash hands after handling. Avoid contact with skin and eyes. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. Use only in well ventilated areas. Dust deposits should not be allowed to accumulate on surfaces. Dust may form an explosive mixture if sufficient concentration is released into the atmosphere. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Conditions for safe storage, including any incompatibilities:

Keep away from food, beverages, and feed sources. Do not store product and empty container away from heat and sources of ignition. Keep container tightly closed in a cool, dry, and well-ventilated area. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Store away from incompatible materials. Store with like hazards.

SECTION 8: Exposure controls/personal protection



Control Parameters:

7789-02-8, Chromium Nitrate, ACGIH TLV TWA (inhalable particles) 10 mg/m³.
7789-02-8, Chromium Nitrate, OSHA PEL TWA (Total Dust) 15 mg/m³ (50 mppcf*).

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Respiratory protection:

Normal ventilation is adequate. Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection:

Safety Glasses or goggles. Safety glasses with side shields or goggles.

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General hygienic measures:

Wash hands after handling. Avoid contact with skin and eyes. Remove contaminated clothing and shoes. Destroy contaminated shoes. The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Purple solid	Explosion limit lower:	Not determined
		Explosion limit upper:	Not determined
Odor:	Odorless	Vapor pressure at 20°C:	Not determined
Odor threshold:	Not determined	Vapor density:	Not determined
pH-value:	Not Determined	Relative density:	Not determined
Melting/Freezing point:	60.06C / 140.11F	Solubilities:	81 g/100 mL (20 °C).
Boiling point/Boiling range:	100°C Decomposes (212 F)	Partition coefficient (n-octanol/water):	Not determined
Flash point (closed cup):	Not applicable	Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	100 C
Flammability (solid, gaseous):	Not Flammable	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density at 20°C:	1.85 g/cm ³ Specific Gravity: 1.80		

SECTION 10: Stability and reactivity

Reactivity: None

Chemical stability:

Stable under normal temperatures and pressures. No decomposition if used and stored according to specifications.

Possible hazardous reactions: None

Conditions to avoid:

Incompatible materials, ignition sources, dust generation, excess heat, combustible materials, and reducing agents.

Incompatible materials:

Reducing agents.

Hazardous decomposition products:

Nitrogen oxides. Chromium dioxide.

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

3250mg/kg LD50 (rat)

Chronic Toxicity: No additional information.

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Corrosion Irritation: No additional information.
Sensitization: No additional information.
Numerical Measures: No additional information.
Carcinogenicity: No additional information.
Mutagenicity: No additional information.
Reproductive Toxicity: No additional information.

SECTION 12: Ecological information

Ecotoxicity: No additional information.
Persistence and degradability: No additional information.
Bioaccumulative potential: No additional information.
Mobility in soil: No additional information.
Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

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. Ensure complete and accurate classification. Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

SECTION 14: Transport information

US DOT

UN Number:

ADR, ADN, DOT, IMDG, IATA

2720

Limited Quantity Exception:

None

Bulk:

RQ (if applicable): None

Proper shipping Name: Chromium nitrate.

Hazard Class: 5

Packing Group: III.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Chromium nitrate.

Hazard Class: 5

Packing Group: III.

Marine Pollutant (if applicable): No additional information.

Comments: None



SECTION 15: Regulatory information

United States (USA)

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SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Fire

SARA Section 313 (Specific toxic chemical listings):

7789-02-8 Chromium compounds (category N090).

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

7789-02-8 Chromium compounds - no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance 1.

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 1%):

7789-02-8 Chromium(III) compounds, n.o.s.*** (** "n.o.s." means not otherwise specified); includes Chromium nitrate.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases: None

Abbreviations and Acronyms:

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IMDG International Maritime Code for Dangerous Goods.
PNEC Predicted No-Effect Concentration (REACH).
CFR Code of Federal Regulations (USA).
SARA Superfund Amendments and Reauthorization Act (USA).
RCRA Resource Conservation and Recovery Act (USA).
TSCA Toxic Substances Control Act (USA).
NPRI National Pollutant Release Inventory (Canada).
DOT US Department of Transportation.
IATA International Air Transport Association.
GHS Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH American Conference of Governmental Industrial Hygienists.
CAS Chemical Abstracts Service (division of the American Chemical Society).
NFPA National Fire Protection Association (USA).
HMIS Hazardous Materials Identification System (USA).
WHMIS Workplace Hazardous Materials Information System (Canada).
DNEL Derived No-Effect Level (REACH).

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