

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 1 of 8

Cadmium Nitrate

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

Product name: Cadmium Nitrate

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25214A

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



Environmentally Damaging



Health hazard

AcTox Oral 4.

AcTox Dermal 4.

AcTox Inhaln 4.

Ecotox 1.

Specific target organ toxicity - repeated exposure , Oral (Category 1).

Carc. 1A.

Signal word: Danger

Hazard statements:

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

May cause cancer.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 2 of 8

Cadmium Nitrate

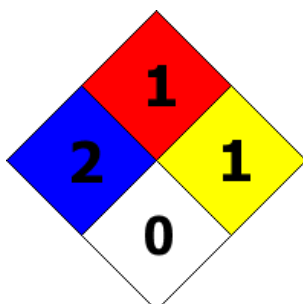
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Use only outdoors or in a well-ventilated area.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash ... thoroughly after handling.
Do not eat, drink or smoke when using this product.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.
Wear respiratory protection.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN: Wash with soap and water.
Take off contaminated clothing and wash before reuse.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Specific measures (see ... on this label).
Rinse mouth.
IF exposed or concerned: Get medical advice/attention.
Collect spillage.
Store in a well ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container to

Other Non-GHS Classification:

WHMIS



NFPA/HMIS



NFPA SCALE (0-4)

Health	4
Flammability	0
Physical Hazard	0
Personal Protection	0

HMIS RATINGS (0-4)

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 3 of 8

Cadmium Nitrate

SECTION 3: Composition/information on ingredients

Ingredients:		
CAS 10022-68-1	Cadmium Nitrate Tetrahydrate	100 %
Percentages are by weight		

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

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. If breathing difficult, give oxygen.

After skin contact:

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

After eye contact:

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath.

Indication of any immediate medical attention and special treatment needed:

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.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors. 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.

Advice for firefighters:

Protective equipment:

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

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 4 of 8

Cadmium Nitrate

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Transfer to a disposal or recovery container. Use spark-proof tools and explosion-proof equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

Methods and material for containment and cleaning up:

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Wash hands after handling. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. 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. Avoid generation of dust or fine particulate. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Store with like hazards.

SECTION 8: Exposure controls/personal protection



Control Parameters:

10022-68-1, Cadmium Nitrate, 0.01, mg/m³ Kidney Damage, USA. ACGIH Threshold Limit Value (TLV).

10022-68-1, Cadmium Nitrate, 0.005000 mg/m³, OSHA Specifically Regulated Chemicals/Carcinogens, PEL, 910.102 7 This standard applies to all occupational exposures to cadmium and cadmium compounds, in all forms, and in all industries covered by the Occupational Safety and Health Act, except the construction - related industries, which are covered under 29 CFR 1926.6 3. OSHA specifically regulated carcinogen.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 5 of 8

Cadmium Nitrate

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. Use under a fume hood. 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. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Respiratory protection:	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:	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 with side shields or goggles.
General hygienic measures:	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):	White solid	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Not Determined	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:	59.5 C	Solubilities:	215% available.
Boiling point/Boiling range:	132 C	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid, gaseous):	Not Determined	Viscosity:	a. Kinematic: Not Determined b. Dynamic: Not Determined
Density at 20°C:	Not Determined		

SECTION 10: Stability and reactivity

Reactivity: None

Chemical stability:

No decomposition if used and stored according to specifications. Material is stable.

Possible hazardous reactions: None

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 6 of 8

Cadmium Nitrate

Conditions to avoid:

Store away from oxidizing agents, strong acids or bases. Incompatible materials, dust generation, confined spaces.

Incompatible materials:

Strong acids. Strong bases. Reducing agents, Phosphorus, Copper, Organic materials.

Hazardous decomposition products:

Carbon oxides (CO, CO₂). Nitrogen oxides (NO_x), Cadmium/cadmium oxides.

SECTION 11: Toxicological information

Acute Toxicity: No additional information.

Chronic Toxicity: No additional information.

Corrosion Irritation: No additional information.

Sensitization: No additional information.

Numerical Measures: No additional information.

Carcinogenicity:

Cadmium Nitrate: This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Chronic exposure to cadmium may cause lung and prostate cancer.

Presumed to have carcinogenic potential for humans

Cadmium Nitrate: IARC: 1 - Group 1: Carcinogenic to humans (Cadmium nitrate) Group 2A: Probably carcinogenic to humans (Cadmium nitrate)

Cadmium Nitrate: NTP: Known to be human carcinogen The reference note has been added by TD based on the background information of the NTP. (Cadmium nitrate)

Cadmium Nitrate: OSHA: 1910.1027 (Cadmium nitrate) OSHA specifically regulated carcinogen (Cadmium nitrate)

Mutagenicity: No additional information.

Reproductive Toxicity:

Reproductive toxicity: Presumed human reproductive toxicant. May damage the unborn child. May cause reproductive disorders. May damage fertility.

SECTION 12: Ecological information

Ecotoxicity:

Toxicity to fish: LC50 - *Ictalurus punctatus* - 4.48 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates.: static test EC50 - *Daphnia pulex* (Water flea) - 0.048 mg/l - 48 h

Persistence and degradability:

Readily degradable in the environment.

Bioaccumulative potential: No additional information.

Mobility in soil: No additional information.

Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

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

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 7 of 8

Cadmium Nitrate

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. Absorb with suitable inert material. Always obey local regulations.

SECTION 14: Transport information

US DOT

UN Number:

ADR, ADN, DOT, IMDG, IATA

1477

Limited Quantity Exception:

None

Bulk:

RQ (if applicable): None

Proper shipping Name: NITRATES, INORGANIC, N.O.S. (Cadmium Nitrate).

Hazard Class: 5

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: NITRATES, INORGANIC, N.O.S. (Cadmium Nitrate).

Hazard Class: 5

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None



SECTION 15: Regulatory information

United States (USA)

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

None of the ingredients are listed.

SARA Section 313 (Specific toxic chemical listings):

10022-68-1 Cadmium Nitrate.

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):

None of the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:

10022-68-1 Cadmium Nitrate.

Chemicals known to cause reproductive toxicity for females:

10022-68-1 Cadmium Nitrate.

Chemicals known to cause reproductive toxicity for males:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.18.2014

Page 8 of 8

Cadmium Nitrate

10022-68-1 Cadmium Nitrate.

Chemicals known to cause developmental toxicity:

10022-68-1 Cadmium Nitrate.

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%):

None of the ingredients are listed.

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:

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).

Effective date: 12.18.2014

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