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MSDS Name: Cadmium Nitrate Tetrahydrate

100

***** SECTION 3 - HAZARDS IDENTIFICATION *****

Appearance: white solid
 Danger! Strong oxidizer

cause
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ancer

Skin: Causes severe skin irritation.

2000

- tation
business

irritant
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repeated
May 11
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Eyes: Blue eyes with a hint of amber. Eyes are light blue with a hint of amber.

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PAGE: 2

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protective gear. Strong oxidizer. Contact with combustible materials may cause a fire. During a fire, irritating and highly toxic gases are evolved.

Containers m

For large fires, use foam, or water until

General Information: Use proper personal protective equipment as indicated in section 8

a suiteable di

serving precast
ing dusty con
tillation. Do
to clean up s

Handling: Wash thoroughly after handling. Wash hands before eating. Remove

e. Minimize dust and eyes. Empty or 'and can be used with cloth hales. Use with braze, solder sparks or open

to be in a tight
isolated area aw

Engineering Controls:
Exhaust ventilation may be necessary to control and/or

to control and the use of this material should be
er.

OSM	OSM
2.5	2.5
level	level
ug/m ³	ug/m ³
Cd	Cd
drill	drill
back	back
app	app
in	in
area	area
carc	carc
can	can
and	and
dis	dis
gfr	gfr
2.5	2.5
level	level
ug/m ³	ug/m ³
Cd	Cd
drill	drill
back	back
app	app
in	in
area	area
carc	carc
can	can
and	and

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[Release: See 29
(CFR 1910.1027)]

OSHA Vacated PELs:

Cadmium nitrate, tetrahydrate;
Cadmium nitrate; No OSHA vacated PELs are listed for this chemical.
Cadmium nitrate;
No OSHA vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use respirator when necessary.

*** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

Physical State:

Solid

Color:

White

Odor:

Odorless

PH:

Not available.

Vapor Pressure:

Not available.

Vapor Density:

Not available.

Evaporation Rate:

Not available.

Viscosity:

Not available.

Boiling Point:

132 deg C

Freezing/Melting Point:

59.5 deg C

Decomposition Temperature:

Not available.

Solubility in water:

2.15% (20 C)

Specific Gravity/Density:

2.45 @ 17C

Molecular Formula:

Cd(NO3)2.4H2O

Molecular Weight:

308.47

*** SECTION 10 - STABILITY AND REACTIVITY ***

Chemical Stability:

Stable.

Conditions to Avoid:

Incompatible materials, combustible materials, organic materials, reducing agents.

Incompatibilities with Other Materials:

Reducing agents, phosphorus, copper, copper alloys, and organic materials.

Hazardous Decomposition Products:

Nitrogen dioxide, toxic fumes.

Hazardous Polymerization:

Has not been reported.

*** SECTION 11 - TOXICOLOGICAL INFORMATION ***

RTCSH:

CAS# 10022-68-1: EV1850000

LD50/CD50:

CAS# 10325-94-7: EV1750000

Draize test, rabbit, eye: 20 mg/24H Moderate;

Draize test, rabbit, skin: 500 mg/24H Severe; Oral, rat: LD50 = 300

mg/kg; Oral, mouse: LD50 = 47 mg/kg; Oral, rat: LD50 = 300

Carcinogenicity:

Cadmium nitrate, tetrahydrate

ACGIH: A2 - Suspected Human Carcinogen (as Cd) (listed as ** unde

California: carcinogen; initial date 10/1/87 (listed as ** unde

NIOSH: potential occupational carcinogen (dust and fume, as Cd) (

OSHA: known carcinogen (listed as ** unde

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US FEDERAL

TSCA

CAS# 10022-68-1 is not on the TSCA inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 10325-94-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPO.

SARA Codes

CAS # 10022-68-1: acute, chronic, flammable.

CAS # 10325-94-7: acute, chronic, flammable.

Section 313

This material contains Cadmium nitrate, tetrahydrate (listed as ** unde

defined **), 100% (CAS# 10022-68-1) which is subject to the

reporting requirements of Section 313 of SARA Title III and 40 CFR

Part 372.

This chemical is not at a high enough concentration to be reportable

under Section 313.

Clean Air Act:

CAS# 10022-68-1 listed as ** no name ** is listed as a hazardous air

pollutant (HAP).

CAS# 10325-94-7 listed as ** no name ** is listed as a hazardous air

pollutant (HAP).

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous

Substances under the CWA.

None of the chemicals in this product are listed as Priority

list chemicals under the CWA.

CAS# 10022-68-1 is listed as a Toxic Pollutant under the Clean Water

Act.

CAS# 10325-94-7 is listed as a Toxic Pollutant under the Clean Water

Act.

OSHA:

None of the chemicals in this product are considered highly hazardous

by OSHA.

STATE

Cadmium nitrate, tetrahydrate can be found on the following state

2,556

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The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:
WARNING: This product contains Cadmium nitrate, tetrahydrate, listed as a chemical known to the state of California to cause cancer. This product contains Cadmium nitrate, listed as a chemical known to the state of California to cause cancer. This product contains Cadmium nitrate, listed as a chemical known to the state of California to cause cancer.

California No Significant Risk Level:
None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN O

Risk Phrases: R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed
R 8 Contact with combustible material may cause fire.

Safety Phrases: S 22 Do not breathe dust.
S 23 Do not get on clothing.
S 24 Wear protective clothing.
S 25 Avoid contact with skin and eyes.
S 26 In case of contact with skin, wash immediately with plenty of water.
S 27 In case of contact with eyes, rinse immediately with plenty of water.
S 36/37 Wear protective gloves and eye protection or face protection.
S 39 Wear a respirator or equivalent.
S 40 Remove contaminated clothing and wash immediately before re-use.
S 41 Remove contaminated clothing and wash immediately before re-use.
S 42 Remove contaminated clothing and wash immediately before re-use.

WGK (Water Danger/Protection)
CAS# 10022-68-1: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits
CAS# 10022-68-1: MEL-United Kingdom, TWA (listed as ** undefined **): 0.025 mg/m³ TWA (as Cd, except cadmium oxide fume, cadmium sulphide and cadmium

Canada
CAS# 10325-94-7 is listed on Canada's DSL List.

This product has a WHMIS classification of C, D1A, D2A.
CAS# 10325-94-7 is not listed on Canada's Ingredient Disclosure List.
CAS# 10325-94-7 is listed on Canada's Ingredient Disclosure List.

Exposure Limits
CAS# 10022-68-1: OEL-ARAB Republic of Egypt: TWA 0.05 mg(Cd)/m³

OEL-AUSTRIA: TWA 0.05 mg(Cd)/m³

OEL-BELGIUM: TWA 0.05 mg(Cd)/m³

OEL-CZECHOSLOVAKIA: TWA 0.05 mg(Cd)/m³

OEL-DENMARK: TWA 0.01 mg(Cd)/m³

OEL-FINLAND: TWA 0.02 mg(Cd)/m³

OEL-GERMANY: TWA 0.05 mg(Cd)/m³

OEL-INDIA: TWA 0.05 mg(Cd)/m³

OEL-JAPAN: TWA 0.05 mg(Cd)/m³

OEL-NETHERLANDS: TWA 0.02 mg(Cd)/m³

OEL-PHILIPPINES: TWA 0.02 mg(Cd)/m³

OEL-RUSSIA: TWA 0.02 mg(Cd)/m³

OEL-SWEDEN: TWA 0.02 mg(Cd)/m³

OEL-SWITZERLAND: TWA 0.05 mg(Cd)/m³

OEL-THAILAND: TWA 0.2 mg(Cd)/m³

OEL-TURKEY: TWA 0.2 mg(Cd)/m³

OEL-UNITED KINGDOM: TWA 0.01 mg(Cd)/m³

OEL-IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL-IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL-IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL-IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

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Information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising, even if the company has been advised of the possibility of such damages.

MSDS Creation Date: 3/24/1999 Revision #3 Date: 12/03/2002

*** SECTION 16 - ADDITIONAL INFORMATION ***

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the