

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

Revision date: 07.11.2024

Product code: 15780

Page 1 of 15

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

### 1.1. Product identifier

Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

UFI: 8TPD-01HA-J009-42X8

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

#### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

### 1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH	
	ACD	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### Further Information

This product is a mixture. REACH Registration Number see section 3.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Flam. Liq. 3; H226

Acute Tox. 3; H311

Acute Tox. 3; H331

Acute Tox. 4; H302

Skin Corr. 1B; H314

Eye Dam. 1; H318

Skin Sens. 1B; H317

Resp. Sens. 1B; H334

Muta. 2; H341

Carc. 1B; H350

Repr. 2; H361fd

STOT RE 2; H373

Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

Revision date: 07.11.2024

Product code: 15780

Page 2 of 15

#### Regulation (EC) No 1272/2008

##### Hazard components for labelling

ethylenediamine  
cadmium  
sodium hydroxide

##### Signal word:

Danger

##### Pictograms:



##### Hazard statements

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H311+H331	Toxic in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

##### Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.

##### Special labelling of certain mixtures

Restricted to professional users.

#### 2.3. Other hazards

No data available

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

Mixtures in aqueous solution

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 3 of 15

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
107-15-3	ethylenediamine			30 - < 35 %
	203-468-6	612-006-00-6	01-2119480383-37	
	Flam. Liq. 3, Acute Tox. 3, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1B, Skin Sens. 1B, Aquatic Chronic 3; H226 H311 H332 H302 H314 H334 H317 H412			
7440-43-9	cadmium			5 - < 10 %
	231-152-8	048-002-00-0		
	Carc. 1B, Muta. 2, Repr. 2, Acute Tox. 2, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H350 H341 H361fd H330 H372 H400 H410			
1310-73-2	sodium hydroxide			1 - < 5 %
	215-185-5	011-002-00-6	01-2119457892-27	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
107-15-3	203-468-6	ethylenediamine	30 - < 35 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 560 mg/kg; oral: LD50 = 866 mg/kg	
7440-43-9	231-152-8	cadmium	5 - < 10 %
		inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists)	
1310-73-2	215-185-5	sodium hydroxide	1 - < 5 %
		Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2	

**Further Information**

No data available

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Self-protection of the first aider

**After inhalation**

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### **Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 4 of 15

#### **After ingestion**

Rinse mouth immediately and drink plenty of water.  
Call a physician immediately.

#### **4.2. Most important symptoms and effects, both acute and delayed**

Cyanosis (blue coloured blood)  
Fever  
Gastrointestinal complaints  
Vomiting  
Circulatory collapse  
Headache  
Spasms  
corrosive  
Irritant

#### **4.3. Indication of any immediate medical attention and special treatment needed**

No data available

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

#### **Unsuitable extinguishing media**

no restriction

### **5.2. Special hazards arising from the substance or mixture**

Combustible liquids  
In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.  
Hazardous combustion products  
In case of fire may be liberated:  
Metal oxide smoke, toxic  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)

### **5.3. Advice for firefighters**

Do not inhale explosion and combustion gases.  
Avoid contact with skin, eyes and clothes.  
In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet.  
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **General advice**

Keep away from sources of ignition - No smoking.  
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).  
Take action to prevent static discharges.  
Corrosive to metals.

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 5 of 15

**For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

**For containment**

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Read label before use. Handle and open container with care.  
Do not breathe vapour/aerosol.  
When using do not eat, drink, smoke, sniff. Keep container tightly closed.  
Use personal protection equipment. Use extractor hood (laboratory).  
Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities  
Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Further information on handling**

Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.  
If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities**

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 6 of 15

**Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.

Store in a place accessible by authorized persons only.

Corrosive to metals.

Unsuitable container/equipment material: Metal

**Further information on storage conditions**

Store in a dry place.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
7440-43-9	Cadmium (Inhalable Fraction)	-	0.004		TWA (8 h)	
107-15-3	Ethylenediamine	10	25		TWA (8 h)	
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	

**Biological limit values**

CAS No	Substance	Parameter	Value	Test material	Sampling time
7440-43-9	Cadmium	Cd	2 µg/g	Creatinine	Not critical

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
107-15-3	ethylenediamine			
Worker DNEL, long-term		inhalation	systemic	25 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	3,6 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	12,5 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	0,275 mg/kg bw/day
1310-73-2	sodium hydroxide			
Worker DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 7 of 15

**PNEC values**

CAS No	Substance	
Environmental compartment		Value
107-15-3	ethylenediamine	
Freshwater		0,016 mg/l
Freshwater (intermittent releases)		0,167 mg/l
Marine water		0,002 mg/l
Freshwater sediment		7,68 mg/kg
Marine sediment		0,768 mg/kg
Secondary poisoning		4,9 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,5 mg/l
Soil		4,36 mg/kg

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.  
If handled uncovered, arrangements with local exhaust ventilation have to be used.  
Do not breathe vapour/aerosol.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles  
Wear eye protection/face protection.

**Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact  
Trade name/designation KCL 897 Butoject®  
Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact  
Trade name/designation KCL 720 Camapren®  
Suitable material: CR (polychloroprene, chloroprene rubber) 0,65 mm  
Wearing time with occasional contact (splashes): > 60 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.  
Take off immediately all contaminated clothing.  
Wash hands before breaks and after work.  
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 8 of 15

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	clear
Odour:	like: Amines
Odour threshold:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	54 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / kinematic:	No data available
Water solubility:	Soluble in: Water
Solubility in other solvents:	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Density:	1,0718 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties	No data available
Sustaining combustion:	No data available
Self-ignition temperature	No data available
Solid:	No data available
Gas:	No data available
Oxidizing properties	No data available

**Other safety characteristics**

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	0
Sublimation point:	No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

Revision date: 07.11.2024

Product code: 15780

Page 9 of 15

Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

#### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Corrosive to metals.

In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Oxidising agent

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Unsuitable container/equipment material: Metal

### 10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

#### Further information

No data available

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

#### Acute toxicity

Toxic in contact with skin.

Toxic if inhaled.

Harmful if swallowed.

Avoid exposure - obtain special instructions before use.

#### ATEmix calculated

ATE (oral) 1667 mg/kg; ATE (dermal) 1000 mg/kg; ATE (inhalation vapour) 7,620 mg/l; ATE (inhalation dust/mist) 0,8060 mg/l

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

Revision date: 07.11.2024

Product code: 15780

Page 10 of 15

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-15-3	ethylenediamine				
	oral	LD50 866 mg/kg	Rat	Study report (1979)	OECD Guideline 401
	dermal	LD50 560 mg/kg	Rabbit	Study report (1948)	Concentrated and 10% water solution was
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
7440-43-9	cadmium				
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			

#### Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

#### Sensitising effects

May cause an allergic skin reaction. (ethylenediamine)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (ethylenediamine)

#### Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (cadmium)

May cause cancer. (cadmium)

Suspected of damaging fertility. Suspected of damaging the unborn child. (cadmium)

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (cadmium)

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Information on likely routes of exposure

There are no data available on the preparation/mixture itself.

#### Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

#### Additional information on tests

There are no data available on the preparation/mixture itself.

#### Practical experience

There are no data available on the preparation/mixture itself.

### 11.2. Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

#### Other information

Pulmonary oedema

#### Further information

Cyanosis (blue coloured blood)

Fever

Gastrointestinal complaints

Vomiting

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 11 of 15

Circulatory collapse  
Headache  
Spasms

**SECTION 12: Ecological information**

**12.1. Toxicity**

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
107-15-3	ethylenediamine					
	Acute fish toxicity	LC50 640 mg/l	96 h	Poecilia reticulata	Study report (1989)	EU Method C.1
	Acute algae toxicity	ErC50 71 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1990)	EU Method C.3
	Acute crustacea toxicity	EC50 mg/l 16,7	48 h	Daphnia magna	Study report (1989)	EU Method C.2
	Fish toxicity	NOEC mg/l > 10	28 d	Gasterosteus aculeatus	Study report (1992)	OECD Guideline 210
	Crustacea toxicity	NOEC mg/l 0,16	21 d	Daphnia magna	Wat. Res. Vol 23, No. 4, 501-510, 1989 (1)	other: Provisional Procedure: Extended t
	Acute bacteria toxicity	EC50 mg/l ( ) 1600	0,5 h	activated sludge of a predominantly domestic sewage	Study report (1989)	other: EC protocol as published O.J. 30
1310-73-2	sodium hydroxide					
	Acute crustacea toxicity	EC50 mg/l 40,4	48 h	Ceriodaphnia sp.	Ecotoxicology and Environmental Safety,4	other: acute 48-h immobilization test ac

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
107-15-3	ethylenediamine	-1,62

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

There are no data available on the mixture itself.

**Further information**

Do not allow to enter into surface water or drains.  
Discharge into the environment must be avoided.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

Revision date: 07.11.2024

Product code: 15780

Page 12 of 15

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Dispose of waste according to applicable legislation.  
Do not allow to enter into surface water or drains.  
Send to a hazardous waste incinerator facility under observation of official regulations. Special monitoring requiring wastes.

#### Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.  
Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethylenediamine, sodium hydroxide)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Classification code:	CF1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	83
Tunnel restriction code:	D/E

### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethylenediamine, sodium hydroxide)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Classification code:	CF1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

### Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethylenediamine
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-C

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p

Revision date: 07.11.2024

Product code: 15780

Page 13 of 15

#### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethylenediamine, sodium hydroxide)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Limited quantity Passenger:	0.5 L
Passenger LQ:	Y840
Excepted quantity:	E2
IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	Yes
Danger releasing substance:	cadmium

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU regulatory information

Authorisations (REACH, annex XIV):	
Substances of very high concern, SVHC (REACH, article 59):	ethylenediamine; cadmium
Restrictions on use (REACH, annex XVII):	
Entry 3, Entry 23, Entry 40, Entry 75	
Information according to Directive 2012/18/EU (SEVESO III):	H2 ACUTE TOXIC
Additional information:	P5c, E2

##### National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.
Water hazard class (D):	3 - highly hazardous to water

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,11,12.

**Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine  
for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 14 of 15

**Abbreviations and acronyms**

Met. Corr: Substance or mixture corrosive to metals  
Flam. Liq: Flammable liquid  
Acute Tox: Acute toxicity  
Skin Corr: Skin corrosion  
Eye Dam: Eye damage  
Skin Sens: Skin sensitisation  
Resp. Sens: Respiratory sensitisation  
Muta: Germ cell mutagenicity  
Carc: Carcinogenicity  
Repr: Reproductive toxicity  
STOT RE: Specific target organ toxicity - repeated exposure  
Aquatic Acute: Acute aquatic hazard  
Aquatic Chronic: Chronic aquatic hazard

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Flam. Liq. 3; H226	On basis of test data
Acute Tox. 3; H311	Calculation method
Acute Tox. 3; H331	Calculation method
Acute Tox. 4; H302	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1B; H317	Calculation method
Resp. Sens. 1B; H334	Calculation method
Muta. 2; H341	Calculation method
Carc. 1B; H350	Calculation method
Repr. 2; H361fd	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 2; H411	Calculation method

**Relevant H and EUH statements (number and full text)**

H226 Flammable liquid and vapour.  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H311+H331 Toxic in contact with skin or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H330 Fatal if inhaled.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### **Cadoxen solution cadmium ethylene diamine complex solution in diluted ethylene diamine for testing p**

Revision date: 07.11.2024

Product code: 15780

Page 15 of 15

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

#### **Further Information**

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

---

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*