

Creation Date 09-Dec-2010

Revision Date 25-Jan-2024

Revision Number 5

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product Description:	<b>Cadmium chloride hemipentahydrate</b>
Cat No. :	<b>12373</b>
Synonyms	Cadmium dichloride, hydrate (2:5).
Index No	048-001-00-5
CAS No	7790-78-5
Molecular Formula	CdCl <sub>2</sub> . 2.5 H <sub>2</sub> O
REACH registration number	-

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

Recommended Use	Laboratory chemicals.
Uses advised against	No Information available

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

#### Company

Thermo Fisher (Kandel) GmbH  
Erlenbachweg 2, 76870 Kandel, Germany  
Tel: +49 (0) 721 84007 280  
Fax: +49 (0) 721 84007 300

**Swiss distributor** - Fisher Scientific AG  
Neuhofstrasse 11, CH 4153 Reinach  
Tel: +41 (0) 56 618 41 11  
<https://www.fishersci.ch/ch/en/customer-help-support/forms/email-us.html>

E-mail address begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:  
Tox Info Suisse Emergency Number: **145 (24hr)**  
Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)  
Chemtrec (24h) Toll-Free: 0800 564 402  
Chemtrec Local: +41-43 508 20 11 (Zurich)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

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## CLP Classification - Regulation (EC) No 1272/2008

### Physical hazards

Based on available data, the classification criteria are not met

### Health hazards

Acute oral toxicity	Category 3 (H301)
Acute Inhalation Toxicity - Dusts and Mists	Category 2 (H330)
Germ Cell Mutagenicity	Category 1B (H340)
Carcinogenicity	Category 1B (H350)
Reproductive Toxicity	Category 1B (H360FD)
Specific target organ toxicity - (repeated exposure)	Category 1 (H372)

### Environmental hazards

Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

Danger

### Hazard Statements

H301 - Toxic if swallowed  
H330 - Fatal if inhaled  
H340 - May cause genetic defects  
H350 - May cause cancer  
H360FD - May damage fertility. May damage the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects

### Precautionary Statements

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P310 - Immediately call a POISON CENTER or doctor/physician  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

### Additional EU labelling

Restricted to professional users

## 2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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## 3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)	7790-78-5		100	Acute Tox. 3 (H301) Acute Tox. 2 (H330) Muta. 1B (H340) Carc. 1B (H350) Repr. 1B (H360FD) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

### Note

Note 1: The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture

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Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Eye Contact</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

None reasonably foreseeable.

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

Notes to Physician	Treat symptomatically.
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## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## Extinguishing media which must not be used for safety reasons

No information available.

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

Non-combustible. Do not allow run-off from fire-fighting to enter drains or water courses.

## Hazardous Combustion Products

Fumes, Toxic fumes, Cadmium oxide, Hydrogen chloride.

## 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Should not be released into the environment.

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

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Protect from direct sunlight. Keep under nitrogen.

**Technical Rules for Hazardous Substances (TRGS) 510**  
**Storage Class (LGK) (Germany)**

Storage Class/LGK 6.1B

**Switzerland - Storage of hazardous substances**

Storage class - SC 6.1  
<https://www.kvu.ch/de/themen/stoffe-und-produkte>  
<https://www.kvu.ch/fr/themes/substances-et-produits>

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<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)		STEL: 0.075 mg/m <sup>3</sup> 15 min TWA: 0.025 mg/m <sup>3</sup> 8 hr	TWA / VME: 0.004 mg/m <sup>3</sup> (8 heures). restrictive limit		TWA / VLA-ED: 0.01 mg/m <sup>3</sup> (8 horas) TWA / VLA-ED: 0.002 mg/m <sup>3</sup> (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)		TWA: 0.002 mg/m <sup>3</sup> (8 Stunden). AGW - Haut	TWA: 0.002 mg/m <sup>3</sup> 8 horas TWA: 0.001 mg/m <sup>3</sup> 8 horas TWA: 0.004 mg/m <sup>3</sup> 8 horas		

Component	Austria	Denmark	Switzerland	Poland	Norway
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)			Haut/Peau TWA: 0.001 mg/m <sup>3</sup> 8 Stunden		TWA: 0.001 mg/m <sup>3</sup> 8 timer

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

MDHS10/2 Cadmium and inorganic compounds of cadmium in air Laboratory method using flame atomic absorption spectrometry or electrothermal atomic absorption spectrometry

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

No information available

#### Predicted No Effect Concentration (PNEC)

No information available.

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## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

**Eye Protection** Wear safety glasses with side shields (or goggles) (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber	See manufacturers	-	EN 374	(minimum requirement)
Nitrile rubber	recommendations			
Neoprene				
PVC				

**Skin and body protection** Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Particulates filter conforming to EN 143

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
**Recommended half mask:-** Particle filtering: EN149:2001  
When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical State</b>	Crystalline Solid	
<b>Appearance</b>	White	
<b>Odor</b>	Odorless	
<b>Odor Threshold</b>	No data available	
<b>Melting Point/Range</b>	568 °C / 1054.4 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	No information available 960 °C / 1760 °F	
<b>Flammability (liquid)</b>	Not applicable	Solid
<b>Flammability (solid,gas)</b>	No information available	
<b>Explosion Limits</b>	No data available	
<b>Flash Point</b>	Not applicable	<b>Method -</b> No information available
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	

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pH	No information available	
Viscosity	Not applicable	Solid
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Vapor Pressure	10 mmHg @ 656 °C	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	

## 9.2. Other information

Molecular Formula	CdCl <sub>2</sub> . 2.5 H <sub>2</sub> O
Molecular Weight	228.34
Evaporation Rate	Not applicable - Solid

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

### 10.4. Conditions to avoid

Avoid dust formation. Incompatible products. Exposure to moist air or water.

### 10.5. Incompatible materials

Aluminium. . Oxidizing agent. Zinc. Alkali metals.

### 10.6. Hazardous decomposition products

Fumes. Toxic fumes. Cadmium oxide. Hydrogen chloride.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

#### Product Information

#### (a) acute toxicity;

Oral	Category 3
Dermal	No data available
Inhalation	Category 2

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)	LD50 = 665 mg/kg ( Rat )	-	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

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**(d) respiratory or skin sensitization;**

Respiratory No data available  
Skin No data available

**(e) germ cell mutagenicity;**

Category 1B  
Animal experiments showed mutagenic and teratogenic effects

**(f) carcinogenicity;**

Category 1B  
Possible cancer hazard. May cause cancer based on animal data

**(g) reproductive toxicity;  
Teratogenicity**

Category 1B  
Teratogenic effects have occurred in experimental animals.

**(h) STOT-single exposure;**

No data available

**(i) STOT-repeated exposure;**

Category 1

**Target Organs**

Lungs, Kidney.

**(j) aspiration hazard;**

Not applicable  
Solid

**Symptoms / effects, both acute and delayed** No information available.

**11.2. Information on other hazards**

**Endocrine Disrupting Properties**

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**Ecotoxicity effects**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Component	Microtox	M-Factor
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)	EC50 = 17 mg/L 15 min EC50 = 5.4 mg/L 30 min EC50 = 98 mg/L 5 min	

**12.2. Persistence and degradability**

Product contains heavy metals. Discharge into the environment must be avoided. Special pre-treatment is necessary  
May persist, based on information available.  
Not relevant for inorganic substances.  
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Persistence**  
**Degradability**  
**Degradation in sewage treatment plant**

**12.3. Bioaccumulative potential**

May have some potential to bioaccumulate



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## 12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

## 12.5. Results of PBT and vPvB assessment

No data available for assessment.

## 12.6. Endocrine disrupting properties

### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

## 12.7. Other adverse effects

### Persistent Organic Pollutant

### Ozone Depletion Potential

This product does not contain any known or suspected substance.

This product does not contain any known or suspected substance.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

#### European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

#### Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

#### Switzerland - Waste Ordinance

Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600  
<https://www.fedlex.admin.ch/eli/cc/2015/891/en>

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

#### 14.1. UN number

UN2570

#### 14.2. UN proper shipping name Technical Shipping Name

CADMIUM COMPOUND  
Cadmium chloride

#### 14.3. Transport hazard class(es)

6.1

#### 14.4. Packing group

I

### ADR

#### 14.1. UN number

UN2570

#### 14.2. UN proper shipping name Technical Shipping Name

CADMIUM COMPOUND  
Cadmium chloride

#### 14.3. Transport hazard class(es)

6.1

#### 14.4. Packing group

I

### IATA

#### 14.1. UN number

UN2570

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<b>14.2. UN proper shipping name</b>	CADMIUM COMPOUND
<b>Technical Shipping Name</b>	Cadmium chloride
<b>14.3. Transport hazard class(es)</b>	6.1
<b>14.4. Packing group</b>	I
<b>14.5. Environmental hazards</b>	Dangerous for the environment Product is a marine pollutant according to the criteria set by IMDG/IMO
<b>14.6. Special precautions for user</b>	No special precautions required.
<b>14.7. Maritime transport in bulk according to IMO instruments</b>	Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)	7790-78-5	-	-	-	-	X	-	-	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)	7790-78-5	-	-	-	-	X	X	X

**Legend:** X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5)	7790-78-5	-	Use restricted. See item 23. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	SVHC Candidate list - 640-998-0 - Carcinogenic, Article 57a; Mutagenic, Article 57b; Toxic for reproduction, Article 57c; Specific target organ toxicity after repeated exposure, Article 57(f) - human health

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

#### REACH links

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/substances-restricted-under-reach>

<https://echa.europa.eu/candidate-list-table>

### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Cadmium chloride (CdCl <sub>2</sub> ),	7790-78-5	Not applicable	Not applicable

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hydrate (2:5)			
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Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Component	ANNEX I - PART 1 List of chemicals subject to export notification procedure (referred to in Article 8)	ANNEX I - PART 2 List of chemicals qualifying for PIC notification (referred to in Article 11)	ANNEX I - PART 3 List of chemicals subject to the PIC procedure (referred to in Articles 13 and 14)
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5) 7790-78-5 ( 100 )	i(1) — industrial chemical for professional use sr — severe restriction  i(2) — industrial chemical for public sr — severe restriction	i — industrial chemical sr — severe restriction	-

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0649&qid=1604065742303>.

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## WGK Classification

Water endangering class = 3 (self classification)

## Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Cadmium chloride (CdCl <sub>2</sub> ), hydrate (2:5) 7790-78-5 ( 100 )	Prohibited and Restricted Substances		Annex I - industrial chemical

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed

H330 - Fatal if inhaled

H340 - May cause genetic defects

H350 - May cause cancer

H360FD - May damage fertility. May damage the unborn child

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H372 - Causes damage to organs through prolonged or repeated exposure  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
H360Fd - May damage fertility. Suspected of damaging the unborn child

## Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (volatile organic compound)

## **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

First aid for chemical exposure, including the use of eye wash and safety showers.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

Chemical incident response training.

## **Prepared By**

Health, Safety and Environmental Department

## **Creation Date**

09-Dec-2010

## **Revision Date**

25-Jan-2024

## **Revision Summary**

New emergency telephone response service provider.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 .**

**For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).**

## **Disclaimer**

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**End of Safety Data Sheet**