

GHS Classification

ID1152

Cadmium chloride (CdCl₂), hydrate (2:5)

CAS 7790-78-5

Date Classified: May 24, 2006 (Environmental Hazards: Mar. 31, 2006)

Physical Hazards

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Not applicable	-	-	-	There are no chemical groups associated with explosive properties present in the molecules.
2 Flammable gases	Not applicable	-	-	-	Solid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Solid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Solid (GHS definition)
6 Flammable liquids	Not applicable	-	-	-	Solid (GHS definition)
7 Flammable solids	Not classified	-	-	-	Nonflammable. (ICSC (J) (1994) of cadmium chloride (anhydride) has a statement that it is "nonflammable".)
8 Self-reactive substances and mixtures	Not applicable	-	-	-	There are no chemical groups associated with explosive or self-reactive properties present in the molecule.
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Not classified	-	-	-	Nonflammable. (ICSC (J) (1994) of cadmium chloride (anhydride) has a statement that it is "nonflammable".)
11 Self-heating substances and mixtures	Not classified	-	-	-	Nonflammable. (ICSC (J) (1994) of a cadmium chloride (anhydride) have a "nonflammable" statement.)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Stable to water (the water solubility is obtained)
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	No data available
15 Organic peroxides	Not applicable	-	-	-	Inorganic compound
16 Corrosive to metals	Classification not possible	-	-	-	Test methods applicable to solid substances are not available.

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 3	Skull and crossbones	Danger	Toxic if swallowed	Because the LD50 in mice was 194mg/kg in RTECS (2004), the substance was classified as Category 3. * Because the data available for this substance is limited, also refer to the classification results of cadmium chloride (anhydride) (ID No.0254, CAS No.10108-64-2) for each item related to its health hazards.
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Solid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	Data without. (In the risk phrases of EU-Annex I (Access on Jun.2005) of a cadmium chloride (anhydride), it is supposed that inhalation toxicity is very high.)
2 Skin corrosion / irritation	Classification not possible	-	-	-	No data available
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	No data available
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	No data available

5	Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There is the positive example of the in vivo chromosome aberration tests of RTECS (2004), and it is classified into Category 2. (It is thought also from EU-Annex I (Access on Jun.2005) of a cadmium chloride (anhydride), and the class of MAK/BAT (2004) (respectively Muta.Cat.2 and 3A) that there is germ cell mutagenicities.)
6	Carcinogenicity	Category 1A-1B	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	The classification (Group 1, Known to be human carcinogens, 1, respectively) as cadmium compounds in IARC58 (1993), NTP RoC(11th, 2005), and industrial hygiene academic society advice (2005) corresponds to Category 1A, the classification (B1, A2, respectively) as cadmium compounds in IRIS(1992), ACGIH-TLV(2005) corresponds to Category 1B, and the classification (Carc. Cat. 2) as cadmium chloride (anhydride) in EU-Annex I (Access on Jun. 2005) corresponds to Category 1B. Since the newness etc. of sources of the both Category were almost equivalent, it was classified into Category 1A-1B. [Indication] 1A is recommended based on the safety, when the Category needs to subdivide.
7	Toxic to reproduction	Category 1B	Health hazard	Danger	May damage fertility or the unborn child	In California Proposition 65 (California EPA/OEHHA, 2005), it is registered as cadmium having reproductive toxicity in sire. It was set as Category 1B.
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	No data available.
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (kidneys)	Health hazard	Danger	Causes damage to organs (kidneys) through prolonged or repeated exposure	Since there is a document of an effect on a kidney by repeated exposure of cadmium compounds (ACGIH-TLV (2004) in Priority 1), and the data of rats also had a description of renal effects (RTECS (2004) in Priority 2 document), it was classified into Category 1 (kidney).
10	Aspiration hazard	Classification not possible	-	-	-	No data available

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Classification not possible	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available.