

## GHS Classification

**ID1154**

**cadmium di(acetate)**

**CAS 543-90-8**

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	-	-	-	Non-combustible (ICSC (J) (2001))
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	-	-	-	Non-combustible (ICSC (J), 2001)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible (ICSC(J) (2001))
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Stable to water (Freely soluble in water)
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 4	Exclamation mark	Warning	Harmful if swallowed	SPECIES: Rat ENDPOINT: LD50 VALUE: 333mg/kg REFERENCE SOURCE: RTECS(2004)
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	-	-	-	No data available
2 Skin corrosion / irritation	Classification not possible	-	-	-	No data available
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	Although irritation is indicated in the description to the humans in HSDB (2003), since there is no test data and subdivision cannot be made, it was classified into Category 2A-2B. [Indication] 2A is recommended based on the safety, when the Category needs to subdivide.
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)	Although the data of in vivo was not found about the this product, there is positive example by in vitro with two indices (the gene mutation test and chromosome aberration test using a mammalian cells) (RTECS (2004), HSDB (2003)). And in addition the inorganic cadmium compound being classified into 3A according to a germ cell mutagenicity category in MAK/BAT (2004) so the influence on the somatic cell in in vivo was guessed at least. And it is classified into Category 2.
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 IARC53 (1993), NTP RoC (11th, 2005), and industrial hygiene academic society advice (2004) corresponds to Category 1A, and the classification as cadmium compounds in IRIS (1992) and ACGIH-TLV (2004) corresponds to Category 1B. Since the newness etc. of sources of the both Category were almost equivalent. So 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	Category 2 (respiratory, kidneys, liver)	Health hazard	Warning	May cause damage to organs (respiratory, kidneys, liver)	It was considered as Category 2 (a respiratory systems, kidney, liver) based on the description in SITTIG (4th, 2002), HSFS (2001), and HSDB (2003) in Priority 2 source in humans (pulmonary edemas, difficulty breathings, respiratory irritant by inhalation exposures), and description in HSDB (2003) (obstacle of the kidney and liver by oral exposure)
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (kidneys); Category 2 (liver, lung)	Health hazard	Danger; Warning	Causes damage to organs (kidneys) through prolonged or repeated exposure; May cause damage to organs (liver, lung) through prolonged exposure	Since there is a description of an effect on kidneys by repeated exposure of cadmium compounds (ACGIH-TLV (2004) indicated by Priority 1) and there are also descriptions of the renal effect (SITTIG (4th, 2002), HSFS (2001), and ICSC(J) (2001) indicated by Priority 2), it was classified into Category 1 (kidney). Moreover, based on descriptions of effects on liver and lungs (SITTIG (4th, 2002), HSFS (2001), and ICSC(J) (2001), which are indicated by Priority 2), it was classified into Category 2 (liver, lung).
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)	Category 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 96-hour LC50=6.2microg/L of fishes (Rainbow trout), and others (AQUIRE, 2003).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Classified into Category 1, since acute toxicity was Category 1, and it is a metallic compound, behavior in water and bioaccumulative potential are unknown.