

GHS Classification

ID1144

Chloric acid, cobalt(2+) salt

CAS 80546-49-2

Date Classified: Mar. 15, 2007 (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 classified	-	-	-	Not classified because the substance is expected not to explode unless a strong impact is given (according to Poisonous and Violent Substances Control Law), though containing O-Halogen bonds as chemical groups associated with explosive properties present. Refer to Poisonous and Violent Substances Control Law: 18th, 2nd article, 2nd ordinance.
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	-	-	-	Not classified because it is considered as non-combustible substances structurally
8 Self-reactive substances and mixtures	Classification not possible	-	-	-	Although the grouping relevant to explosive (O-halogen) is included, the grouping relevant to autoreactive is not included. Since data is insufficient, it cannot be classified.
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Not classified	-	-	-	Not classified because it is considered as Non-combustible substances structurally
11 Self-heating substances and mixtures	Not classified	-	-	-	Not classified because it is considered as non-combustible substances structurally
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Since it is used as a dye mordant and considered to be stable to the water, it is carried out the outside of category.
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	Classification not possible due to lack of data, though it is considered as a strong oxidizing agent.
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)	Classification not possible	-	-	-	No data available
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	Classification not possible	-	-	-	No data available
4 Respiratory/skin sensitization	Respiratory sensitization: Category 1; Skin sensitization: Category 1	(Respiratory sensitization)Health hazard; (Skin sensitization)Exclamation mark	(Respiratory sensitization)Danger; (Skin sensitization)Warning	(Respiratory sensitization)May cause allergy or asthma symptoms or breathing difficulties if inhaled; (Skin sensitization)May cause allergic skin reaction	With respiratory sensitization and skin sensitization, as cobalt or cobalt compound, "Sah (risk of the airways and skin sensitizing properties)" in BAK/MAT (2005), "sensitizing chemical substances of occupational allergies" in Japanese Society of Occupational Allergy (2004), and "sensitizing substance: 1st group (substance which has sensitizing clearly to human)" in Japan Society for Occupational Health (2006), since it was classified into them, they were considered as Category 1.
5 Germ cell mutagenicity	Classification not possible	-	-	-	Without data. In addition, in MAK/BAT (2004) as cobalt and inorganic cobalt compound, it is classified into "3A (material in which inducing genetic damage in the germ cells of humans or animals or producing mutagenicity in vivo in mammalian somatic cells, and reaching a somatic cells with an active forms)."

6	Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	As cobalt and cobalt compound, it is categorized into "2B (it may be carcinogenicity to human)" (IARC52 (1991)) in IARC, it is categorized into "A3 (although it is the substance with carcinogenicity to the animal, the relevance to human is unknown)" (ACGIH-TLV(2006)) in ACGIH, and in Japan Association of Industrial Health it is categorized into "2B (the substance which may have carcinogenicity to human (the substance whose evidence is not comparatively sufficient))" (the Journal of Japan Association of Industrial Health (2006)). Therefore, it was classified into Category 2 according to the technical indicator.
7	Toxic to reproduction	Classification not possible	-	-	-	No data available
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 (respiratory organs, heart)	Health hazard	Danger	causes damage to organs (respiratory organs, heart) through prolonged or repeated	Although there was no data of this product itself, because of the document that it had effects on respiratory system and myocardia with repeated exposure of inorganic cobalt compounds ((ACGIH-TLV (2006)) in Priority 1), it was classified into Category 1 (respiratory system, heart).
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.