GHS Classification

ID1337 **hydroxylamine**

CAS 7803-49-8 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 of non-combustible (but explodes at 129degC, according to NFPA, 13th, 2002), though the substance is a hydroxylamine containing N-O bonds as chemical groups associated with explosive properties present.
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 (NFPA, 13th, 2002)
8	Self-reactive substances and mixtures	Not classified	–	–	–	Although the grouping relevant to explosive (N-O) is included, explosion is not caused if not exposed to high. Moreover, the grouping relevant to autoreactive was not included, it carried out the outside of Category. (However, mixing of a substance with decomposition promotion actions, such as metal ions, will promote autoreactive. In Japan, serious explosions happened and 85wt% aqueous solutions are designated as first class self-reactive substances and the aqueous solutions beyond 20wt% as second sort self-reactive substance in fire defense laws.)
9	Pyrophoric liquids	Not applicable	–	–	–	Solid (GHS definition)
10	Pyrophoric solids	Not classified	–	–	–	Non-combustible (NFPA, 13th, 2002)
11	Self-heating substances and mixtures	Not classified	–	–	–	Non-combustible (NFPA, 13th, 2002)
12	Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	–	–	–	The chemical structure of the substance does not contain metals or metaloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At).
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	–	–	–	No data 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	Category 2	Exclamation mark	Warning	Causes skin irritation	Since there is the description which indicates skin stimulation (shot red, pain, skin timulating) in Priority 2 (ICSC (1995), SITTIG (4th, 2002)) and R37/38 is indicated of European risk phrases, it was set as category 2.
3	Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	There is description of "caustic is indicated" to the human eye (ICSC(1995), SITTIG(4th, 2002)) in Priority 2, and EU risk phrases is R41. So it is set as Category 1.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Category 1	(Respiratory sensitization)-; (Skin sensitization)Exclamation mark	(Respiratory sensitization)-; (Skin sensitization)Warning	(Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction	Respiratory sensitization: no data available. Skin sensitization : in addtion to the description (ICSC(1995), SITTIG(4th, 2002)) in Priority 2 "sensitization of the skin may be carried out by repetition or long-term contact", the EU risk phrases is R43, and it is German MAK Liszt's Sensitization substance (Sh), it is referred to as Category 1.
5	Germ cell mutagenicity	Classification not possible	–	–	–	Classification not possible due to lack of data
6	Carcinogenicity	Classification not possible	–	–	–	No data available
7	Toxic to reproduction	Classification not possible	–	–	–	No data available

8	Specific target organs/systemic toxicity following single exposure	Category 2 (blood system, nervous system); Category 3 (respiratory tract irritation)	Health hazard	Warning	May cause damage to organs (blood system, nervous system); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	There are descriptions that in Priority 2, ″it affects blood and methemoglobin may be generated ″ and the syntoms such as ″dizziness, headaches, nausea, vomiting″, are developed to humans. Furthermore, since also there was description that ″it stimulates a respiratory tract ″ to humans (all are ICSC (1995), SITTIG (4th, 2002)), it was considered as Category 2 (blood, nervous system) and Category 3 (respiratory irritant).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (blood, nervous system, liver)	Health hazard	Warning	May cause damage to organs (blood, nervous system, liver) through prolonged or repeated exposure	Based on descriptions that ″Blood is affected to humans, and methemoglobin formation and the anemia accompanying it may be occured″(ICSC (1995), SITTIG (4th, 2002) Priority 2), and that ″a nervous system and liver may be affected to humans″(SITTIG (4th, 2002) Priority 2), it was classified into Category 2 (blood, nervous systems,liver).
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	–	–	–	Insufficient data available.
11	Hazardous to the aquatic environment (chronic)	Classification not possible	–	–	–	Classification not possible due to lack of data