GHS Classification

ID648 2-Propanamine

CAS 75-31-0 Date Classified: Apr. 20, 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	–	–	–	Liquid (GHS definition)
3	Flammable aerosols	Not applicable	–	–	–	Not aerosol products
4	Oxidizing gases	Not applicable	–	–	–	Liquid (GHS definition)
5	Gases under pressure	Not applicable	–	–	–	Liquid (GHS definition)
6	Flammable liquids	Category 1	Flame	Danger	Extremely flammable liquid and vapour	Flash point: -37degC, Initial Boiling point (Boiling point): 32degC
7	Flammable solids	Not applicable	–	–	–	Liquid (GHS definition)
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 classified	–	–	–	The substance with ignition points of 400 degC (Hommmel (1991)) does not ignite in room temperatures.
10	Pyrophoric solids	Not applicable	–	–	–	Liquid (GHS definition)
11	Self-heating substances and mixtures	Classification not possible	–	–	–	Test methods applicable to liquid substances are not available
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	–	–	–	Organic compounds containing no oxygen and halogen.
14	Oxidizing solids	Not applicable	–	–	–	Liquid (GHS definition)
15	Organic peroxides	Not applicable	–	–	–	Organic compounds containing no -0-0- structure
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)	Category 3	Skull and	Danger	Toxic if swallowed	Category 3 based on SPECIES: Rat; ENDPOINT: LD50;: 111mg/kg; REFERENCE SOURCE: Priority 1,2
1	Acute toxicity (dermal)	Category 3	Skull and crossbones	Danger	Toxic in contact with skin	It was set as Category 3 from rat LD50: 382mg/kg (PATTY (5th, 2001)).
1	Acute toxicity (inhalation: gas)	Not applicable	–	–	–	Liquid (GHS definition)
1	Acute toxicity (inhalation: vapour)	Category 4	Exclamation mark	Warning	Harmful if inhaled	It was classified as Category 4 from the statement of rat inhalation LC50: 4000ppm (4h) (RTECS (2005)).
1	Acute toxicity (inhalation: dust, mist)	Classification not possible	–	–	–	No data available
2	Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	In rabbit skin irritation test, it was assigned grade6 (PATTY (5th, 2001)), and there is a description that it irritates skin and may cause burn on human skin (HSDB (2005)), it was classified as Category 2.
3	Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	Although the eye irritation recovers in 3 - 4 hours in human exposure to vapor, blurred vision remains in exposures of fluids (PATTY (2001)). It was set as Cayegory 1 from the description of grade 10 (PATTY (5th, 2001)) in the eye stimulativeness examination of the rabbit.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: Since there is no data, it cannot be classified. Skin sensitization: Based on a statement that the result of an animal test was negative(IUCLID (2000)), it was put outside of the Category.
5	Germ cell mutagenicity	Classification not possible	–	–	–	Each in vitro mutagenicity test (Ames examination, chromosomal aberration test) result was negative, however, we found no in vivo test data and we presupposed that we could not categorize it by the technical guideline.
6	Carcinogenicity	Classification not possible	–	–	–	Classification not possible due to lack of data and reports
7	Toxic to reproduction	Classification not possible	–	–	–	It is reported maternal toxicity was NOAEL 0.05mg/L and teratogenicity NOAEL 1mg/L (maximum administration dose) (IUCLID (2000) priority 2). However, it was presupposed that it cannot classify for classifying because of insufficient data.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (inhalation:respiratory)	Health hazard	Danger	Cause damage to organs (inhalation:respiratory)	Irritation of the nose and throat was identified by short term exposures of 10 - 20ppm with Volunteers (ACGIH (2001)), and there are descriptions that pulmonary edemas are caused at high exposure levels resulting in death in cace the treatment is delayed (ACGIH (2001); SITTIG (47th, 2002)). So it was set as Category 1(respiratory systems).

9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (eye, respiratory organs)	Health hazard	Warning	May cause damage to organs (eye, respiratory organs) through prolonged or repeated	Although it was priority2, based on the statement that repeated exposure causes vision loss, stimulus of lungs, and bronchitis, it was classified to as Category 2 (SITTIG (47th, 2002)).
10	Aspiration hazard	Category 2	Health hazard	Warning	May be harmful if swallowed and enters airways	Category 2 because of "possible to cause chemical pneumonia by misswallowing of the liquid."(ICSC(J), 1999)

Environmental Hazards

Hazard class		Classification	symbol	signal word	hazard statement	Rational for the classification
11	Hazardous to the aquatic environment (acute)	Category 3	–	–	Harmful to aquatic life	It was classified into Category 3 from 48-hour EC50=20.8mg/L of Crustacea (Daphnia magna) (IUCLID, 2000).
11	Hazardous to the aquatic environment (chronic)	Not classified	–	–	–	Since rapidly degrading (BOD: 70-80%(IUCLID, 2000)), and less bio-accumulative (log Kow=0.26 (PHYSPROP Database, 2005)).