

## GHS Classification

**ID890**

**heptan-3-one**

**CAS 106-35-4**

Date Classified: Oct. 1, 2005 (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 3	Flame	Warning	Flammable liquid and vapour	Flash point: >=23degC and <=60degC
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	Classification not possible	-	-	-	No data available
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 metalloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At).
13 Oxidizing liquids	Not applicable	-	-	-	Organic compounds containing oxygen (but not chlorine and fluorine) chemically bonded only to carbon and hydrogen (but not to other elements).
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- 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 5	-	Warning	May be harmful if swallowed	SPECIES: Rat ENDPOINT: LD50 VALUE: 2760 mg/kg REFERENCE SOURCE: ACGIH (2003), PATTY (4th, 1994)
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on rabbit LD50 value: >20mL/kg (reduced value = >16000mg/kg) (ACGIH 7th, 2001, PATTY 4th, 1994), it was set as the outside of Category.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Not classified	-	-	-	From description that death was not acknowledged at 2000ppm in the 4-hour (equivalent 9.323mg/L) inhalation exposure test using rats (ACGIH 7th (2001), PATTY 4th (1994)), it was set as the outside of Category.
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	It was set as Category 2 from description that moderate irritation was admitted by the test applied to the skin of the rabbit (PATTY (4th, 1994)).
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	We categorized it as Category 2B based on the descriptions that mild irritation was acknowledged by the test applied to the eyes of the rabbits (ACGIH (7th, 2001) and PATTY (4th, 1994)).
4 Respiratory/skin sensitization	Classification not possible; Skin sensitization: Not possible	-	-	-	Respiratory organ: No data. Skin: Based on the descriptions in ACGIH (7th, 2001) and PATTY (4th, 1994) that the sensitizing property was not acknowledged with the maximization test for human, we classified it as Out Of Category.
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data available
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 3 (narcotic effects, respiratory tract irritation)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects, respiratory tract irritation)	From description in PATTY (4th, 1994) that a narcosis was seen at high concentrations in the single inhalation exposure tests using rats, it was judged that there was an anesthetic actions and was set as Category 3 (anesthetic actions). Moreover, it was set as Category 3 (respiratory irritation) from description in ICSC (J) (1996), HSFS (2002), and SITTIG (4th, 2002) that the respiratory tracts are stimulated.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Although there is description that in the neurological toxicity test at repeated inhalation exposures and oral administration to the rat, the neurological toxicity were not observed with the exposures in the Category 2 guidance value range (ACGIH (7th, 2001) and PATTY (4th, 1994)), it cannot be classified since the data is insufficient as there is no data which examined general toxicity.
10	Aspiration hazard	Category 2	Health hazard	Warning	May be harmful if swallowed and enters airways	Category 2 because of a ketone composed of 13 carbon atoms or less.

### 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.