

GHS Classification

ID760

3-Pentanone

CAS 96-22-0

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	-	-	-	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 2	Flame	Danger	Highly flammable liquid and vapour	Flash point: <23degC. Initial boiling point: >35degC
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	-	-	-	It is the liquid with ignition points of 452 degC (ICSC (1996)) and it 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 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 (but not to other elements).
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Organic compounds 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: 2140 mg/kg REFERENCE SOURCE: ACGIH (2001)
1 Acute toxicity (dermal)	Category 5	-	Warning	May be harmful in contact with skin	It was set as Category 5 from rat LD50 : 2100mg/kg (RTECS (2004)).
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	Since data is insufficient, it cannot be classified. (Since there is data that 4/6-animal death with 8000ppm/4H exposure in rat test, it is presumed to be Category 5)
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	Based on the evaluation of Mild in the examination on rabbits (ACGIH (2001)), it was classified as Category 3. .
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	It was set as Category 2A from the moderate by the examination of the rabbit (ACGIH (2001)).
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: As there is no data, it cannot be classified. Skin sensitization: Based on the negative result of a test in humans (IUCLID (2000)), it was put outside of Category.
5 Germ cell mutagenicity	Classification not possible	-	-	-	Classification not possible due to lack of data
6 Carcinogenicity	Classification not possible	-	-	-	Classification not possible due to lack of data and reports
7 Toxic to reproduction	Classification not possible	-	-	-	Although there is a report of having no influence in the mouse reproduction studies (IUCLID (2000)), it cannot be classified due to insufficient data.

8	Specific target organs/systemic toxicity following single exposure	Category 1 (central nervous system); Category 3 (narcotic); Category 3 (respiratory tract irritation)	Health hazard; Exclamation mark	Danger; Warning	Cause damage to organs (central nervous system); May cause respiratory irritation or may cause drowsiness and dizziness (narcotic); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	By inhalation exposure, a coma (PATTY (5th, 2001)), a coma, giddiness, headache, malfunction, and depression of the central nervous system are caused (HSDB (2005)), si it was set as category 1 (central nervous system)), and it segmented into Category 3 (anaesthetic). And from the statement of respiratory irritation (ICSC (1996), HSDB (2005), ACGIH (2001)), it was set as category 3 (respiratory irritation).
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	There is only a report of the drinking water administration examination outside the guidance value of Category 2. It cannot be classified due to insufficient data.
10	Aspiration hazard	Category 2	Health hazard	Warning	May be harmful if swallowed and enters airways	We have a statement that the aspiration into the lungs may occur the chemical pneumonia (HSDB (2005)), and we classified it as Category 2 as it being ketone with the carbon numbers 5.

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Not classified	-	-	-	It carried out the outside of Category from 48-hour EC50>500mg/L of Crustacea (Daphnia magna) (IUCLID, 2000).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since not water-insoluble (aqueous solubility =48100 mg/L (PHYSPROP Database, 2005)) and acute toxicity is low.