

GHS Classification

ID852

Kerosine petroleum

CAS 8008-20-6

Date Classified: Mar. 23, 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	Classification not possible (Category 3 or Category 4)	Flame	Warning	Flammable liquid and vapour	Although classified into PGIII equivalent to Category 3 in UNRTDG, the range of the flash point is widely distributed in given information. So if the flash point is not measured about a real sample, it cannot be judged. In addition, the acceptance criteria is as follows. Category 3: 23 degC<= flash point <=60degC, Category 4: 60 degC< flash point <=93 degC
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	-	-	-	Flash point: 220degC (ICSC (J), 1998)
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Not classified	-	-	-	UNRTDG Class: 3
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 no oxygen, fluorine and chlorine.
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- structure
16 Corrosive to metals	Not classified	-	-	-	UNRTDG Class: 3

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Not classified	-	-	-	It was set as the outside of Category from two descriptions. One is that rat LD50 value of jet propulsion fuel (JP-5) of IARC 45 (1989) was >48000mg/kg, and the other is that death was not observed in 5000mg/kg in the GLP tests in which straight run kerosene of IUCLID (2000) was orally administered to rats.
1 Acute toxicity (dermal)	Not classified	-	-	-	It was set as the outside of Category from the description : in GLP tests of dermally administered to rabbits, death was not observed at 2000mg/kg of straight run kerosene (IUCLID (2000)).
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 by 5.28mg/L in the GLP tests which done inhalation exposure of straight run kerosene to rats (IUCLID (2000)), 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 irritation was acknowledged by the cutaneous contact by the humans (EHC (20, 1982), ACGIH (7th, 2001), PATTY (4th, 1994), IARC (45, 1989)).
3 Serious eye damage / eye irritation	Not classified	-	-	-	There is the description that the eye is not stimulated (PATTY (4th, 1994)), and the description that in Draize test (GLP tests) using the rabbit , irritation was not acknowledged (IUCLID (2000)). So it was set as the outside of Category.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	Respiratory organ: No data Skin: Although there was description that sensitizing property was not acknowledged for Buehler test (GLP test) using the guinea pigs in IUCLID (2000), we presupposed that it could not be classified since the lack of data which negates sensitizing clearly in Priority1.
5 Germ cell mutagenicity	Not classified	-	-	-	[special note] There is a positive result for jet fuel A with the chromosome aberration test on rat marrow cells which is an in vivo mutagenicity test using somatic cells (IARC 45, 1989), however, there are negative results for kerosine (ACGIH 7th, 2001, IARC 45, 1989, IUCLID, 2000). Since a negative result for diesel No.1 with micronucleus examination on mouse bone marrow (ACGIH 7th, 2001) and negative result for kerosene and jet fuel with dominant lethal test on rodents (ACGIH 7th, 2001) were also found. So it was classified as out of Category.

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)	[special notes] Since although Jet fuel (kerosene, 8008–20–6) and Distillate(light) fuel oils are classified into the group 3 in IARC 45 (1989). But kerosene/Jet fuels were classified into A3 in ACGIH (2001). So it was considered as Category 2 based on the segment of ACGIH which is latest assessment.
7	Toxic to reproduction	Classification not possible	-	-	-	There is a description that reproductive toxicity was not observed in the pregnant rat administration test (ACGIH (7th, 2001), IARC (45, 1989), and NTP (TR 310, 1986)), but since there is no statements about impact on parent animals, it is unable to judge whether a dose (under saturated concentration calculable from vapor pressures) is appropriate. Therefore, it is unclassifiable due to insufficient date.
8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation, narcotic effects)	Exclamation mark	Warning	may cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation, narcotic effects)	Description that central-nerves control, giddiness, etc. were admitted in humans evidence of exposure of ACGIH (7th, 2001), PATTY (4th, 1994), and IARC 45 (1989), and from description that respiratory irritant was admitted by the inhalation exposure test using the mouse of ACGIH (7th, 2001), it was thought that an anesthesia action and respiratory irritant were indicated, and was set as Category 3.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Classification not possible due to lack of data
10	Aspiration hazard	Category 1	Health hazard	Danger	May be fatal if swallowed and enters airways	Category 1 because of "possible to cause chemical pneumonia by miswallowing of the liquid."(ACGIH, 7th, 2001; EHC 20, 1982)

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.