

GHS Classification

ID795

Acetamide, N,N-dimethyl-

CAS 127-19-5

Date Classified: Jul. 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 4	-	Warning	Combustible liquid	Category 4 because of its flash point: 63degC (SIDS, 2001)
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 ignition points is 400 degC and does not ignite spontaneously in normal 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	Category 5 based on SPECIES: Rat; VALUE: 4263mg/kg; REFERENCE SOURCE: IUCLID (2000)
1 Acute toxicity (dermal)	Category 5	-	Warning	May be harmful in contact with skin	There is rabbit trial report (IUCLID (2000)), and all are in the range of 2100 - 3600 mg/kg. So it is classified into Category 5.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Category 3	Skull and crossbones	Danger	Toxic if inhaled	There is rat test (IUCLID (2000)), and the calculated value converted into ppm of 4 hour inhalation was about 1100ppm. So it was classified as Category 3.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	Although it is considered to have no stimulativeness on humans (SIDS (2001)), results of having mild irritation (RTECS (2004)) or no stimulativeness (SIDS (2001)) are obtained with rabbits. The results on guinea pigs is severe irritation, and on mice is slight to no stimulativeness depending on doses (SIDS (2001)). These data is synthesized, and it was judged to have mild irritation. So it was classified as Category 3.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	It is considered as "slightly irritating" in humans, but indicating "mild" and reversible irritation in the almost tests using rabbits, it is classified into Category 2B.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not classified	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: We have no data and we could not classify it. About skin sensitization, we classified it as Out Of Category according to the description that it has no sensitizing property for human and guinea pigs (SIDS (2001), PATTY (2001)).
5 Germ cell mutagenicity	Not classified	-	-	-	Increase of the chromosomal aberrations was not acknowledged in the survey for the workers (SIDS (2001)). Moreover, because we found negative data in some in vivo examinations, such as the dominant lethality examination using the rat and the mouse, and the chromosomal aberration test of rat marrow (SIDS (2001)), we classified it as Out Of Category.
6 Carcinogenicity	Not classified	-	-	-	There is a report that carcinogenic is not seen in the tests using rats, hamsters, and mice (SIDS (2001)). Moreover, since ACGIH has classified into A4 (Not Classifiable as a Human Calcinogen), it carries out the outside of Category.

7	Toxic to reproduction	Category 1B	Health hazard	Danger	May damage fertility or the unborn child	It is classified into category 1B since that abnormalities are observed of fetal organ and skeletal formation in the rabbit study in the pregnant mother administered orally through drinking waters or nasogastric tubes (SIDS (2001), ACGIH (2001)), and abnormalities are observed of fetal organ and skeletal formation as same in pregnant maternal inhalation exposure (SIDS (2001)), moreover, EU has classified into the reproduction Category 2 (damage may be occur to a fetus).
8	Specific target organs/systemic toxicity following single exposure	Category 3 (narcotic effects)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects)	There is a report that it has an effect on liver within the limits of the inhalation exposure guidance value to Category 1 in mammals whose animal species is not specified (RTECS (2004)). However, the data is inadequate as a reason for classification. Classified into Category 3 (anesthetic action) because it is regarded as inducing giddiness, lethargy and frailty in humans (ACGIH (2001)).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (liver)	Health hazard	Danger	Causes damage to organs (liver) through prolonged or repeated exposure	Based on that dysfunction of the liver is observed in the worker engaged in the workplace treating DMA for a long-term period (ACGIH (2001)), hypertrophy liver is observed in the inhalation exposure test using a rat within the range of the guidance value of Category 2 (SIDS (2001), ACGIH (2001)), and the effects on the liver is observed in the inhalation study using a mouse within the range of the guidance value of Category 2 (PATTY (2004)), experience with humans is considered seriously and it is classified into Category 1 (target organ: 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)	Not classified	-	-	-	It carried out the outside of Category from 48-hour EC50>500mg/L of Crustacea (Daphnia magna) (SIDS, 2004).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since not water-insoluble (water solubility=1.00*106mg/L(PHYSROP Database, 2005)) and acute toxicity is low.