

GHS Classification

ID641

Trimethyl phosphite

CAS 121-45-9

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 3	Flame	Warning	Flammable liquid and vapour	Category 3 because of its flash point: 28degC(Hommel, 1991)
7 Flammable solids	Not applicable	–	–	–	Liquid (GHS definition)
8 Self-reactive substances and mixtures	Not classified	–	–	–	Not classified because of UNRTDG Class: 3, PGIII
9 Pyrophoric liquids	Not classified	–	–	–	Not ignite spontaneously on coming into contact with air at normal temperatures (flash point: 210degC (ICSC,2002)).
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 classified	–	–	–	It is classified into the un transportation classification classes 3 PGIII, although metalloid (P) is included. Therefore, it carried out the outside of Category.
13 Oxidizing liquids	Not classified	–	–	–	UNRTDG Class: 3; PG III
14 Oxidizing solids	Not applicable	–	–	–	Liquid (GHS definition)
15 Organic peroxides	Not applicable	–	–	–	There are no chemical groups associated with peroxide present in the molecule.
16 Corrosive to metals	Not classified	–	–	–	Not classified because of UNRTDG Class: 3, PGIII

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: 2500-2890 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 based on rabbit LD50= 2600mg/kg (ACGIH (2001)).
1 Acute toxicity (inhalation: gas)	Not applicable	–	–	–	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	–	–	–	Insufficient data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	–	–	–	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Based on the statement of "moderately severe but persistent irritation" (ACGIH (2001)) as a result of rabbit skin irritation test, it was classified as Category 2 .
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	It was set as Category 2A based on the report of "a reversible serious cornea stimulus and swelling in rabbit test" (ACGIH (2001)).
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)–; (Skin sensitization)–	(Respiratory sensitization)–; (Skin sensitization)–	(Respiratory sensitization)–; (Skin sensitization)–	Respiratory sensitization and Skin sensitizations: No data
5 Germ cell mutagenicity	Classification not possible	–	–	–	Classification not possible due to lack of data
6 Carcinogenicity	Classification not possible	–	–	–	No data available
7 Toxic to reproduction	Classification not possible	–	–	–	There are defferent conclusions from two information (the Health, Labor and Welfare Ministry reports, 1997;ACGIH, 2001). Therefore, it was presupposed that it cannot classify.

8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	Exclamation mark	Warning	may cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	Irritation to the human upper respiratory tract is reported (ICSC, 2002; HSDB, 2002). Moreover, since irritation and breathing difficulty were reported by the inhalation test with rats (ACGIH, 2001), it was set as Category 3 (respiratory irritant).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (nervous system, lung, eye)	Health hazard	Warning	may cause damage to organs (nervous system, lung, eye) through prolonged or repeated exposure	Effects on nervous system (reduction in an spontaneous motor activity, tremor), alveolar-epithelium hypertrophy and ocular opacity were reported in the oral administration examination using the rat (Health, Labor and Welfare Ministry reports). Based on each value rectified by the administration period and the result compared with the guidance value on the 90th, it was classified to as Category 2 (a nervous system, lungs, eye).
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)	Classification not possible	–	–	–	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	–	–	–	No data available.