

GHS Classification

ID964

Stoddard solvent

CAS 8052-41-3

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 | Classification not possible (Category 1-3) | Flame | Danger | Extremely flammable liquid and vapour | Since compositions and fraction ranges vary with origin of manufacture, the flash point cannot be determined. Moreover, also in the classification applied to this product, packing Division is in range 1-3 by domestic laws. Therefore, if flash point and initial boiling point (can be substituted with boiling point) are not measured with an actual sample, it cannot be judged. The acceptance criteria are as follows: Category 1: flash point <23 degC, boiling point (initial boiling point) <=35 degC; Category2: flash point <23-degC and boiling point (initial boiling point)> 35 degC; Category3: 23 degC<= flash point <=60 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: 230-240degC ((ICSC (J), 2004) |
| 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 | - | - | - | Containing no metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At) though the molecular structure is unknown. |
| 13 Oxidizing liquids | Not applicable | - | - | - | Oxygen, fluorine or chlorine atoms is not included in the molecule. (Although molecular structures is not specified, the mentioned fact is obvious from various data) |
| 14 Oxidizing solids | Not applicable | - | - | - | Liquid (GHS definition) |
| 15 Organic peroxides | Not applicable | - | - | - | Containing no -O-O- structure in molecules according to some reports, though the molecular structure is unknown. |
| 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) | Not classified | - | - | - | From description that mortality was not acknowledged at 5000mg/kg in the study using the rat (EHC 187 (1996)), it was considered out of category. |
| 1 Acute toxicity (dermal) | Classification not possible | - | - | - | There was the description that one case of four cases died at 2000mg/kg in the test using rabbits (EHC 187 (1996)). But other data cannot be found and Category could not be specified. So it cannot be classified due to insufficient data. |
| 1 Acute toxicity (inhalation: gas) | Not applicable | - | - | - | Liquid (GHS definition) |
| 1 Acute toxicity (inhalation: vapour) | Classification not possible | - | - | - | Based on descriptions that 1 out of 15 rats died in 8-hour exposure of 8.2mg/L (4-hour equivalent: 11mg/L) (EHC 187 (1996), ACGIH (7th, 2001), ATSDR (1995)), and that death was not observed in rat 4-hour exposure of 5.5mg/L (EHC 187 (1996)), there was possibility of Category 3 or 4. However, it could not be specified, it cannot be classified due to data insufficiency. |
| 1 Acute toxicity (inhalation: dust, mist) | Classification not possible | - | - | - | No data available |
| 2 Skin corrosion / irritation | Category 2 | Exclamation mark | Warning | Causes skin irritation | It was set as Category 2 from description that the moderate irritation and slight edemas were admitted in the test applied to the skin of the rabbit for 4 hours (EHC 187 (1996)). |
| 3 Serious eye damage / eye irritation | Not classified | - | - | - | There is the description that the ocular reaction disappeared 24 hours after administration in the test applied to the eyes of the rabbit (EHC 187 (1996)), we judged that it was incompatible for the acceptance criteria of irritation. So we classified it as Out Of Category. |
| 4 Respiratory/skin sensitization | Respiratory sensitization: Classification not possible; Skin sensitization: Not possible | - | - | - | Respiratory organ: No data. Skin: Based on the description that in Buehler test using the guinea pigs in EHC 187 (1996) sensitizing property was not acknowledged, we classified it as Out Of Category. |

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|----|--|---|------------------|---------|---|--|
| 5 | Germ cell mutagenicity | Not classified | - | - | - | There is the negative result by the dominant lethal test using the rat and mouse which are the in vivo multigeneration mutagenicity test using a germ cell (EHC 187, 1996; ATSDR, 1995), and by micronucleus test using mouse erythrocyte which is the in vivo mutagenicity test using a somatic, and chromosomal aberration test using rat myeloid cell (EHC 187, 1996, ATSDR, 1995). So it carried out the outside of Category. |
| 6 | Carcinogenicity | Classification not possible | - | - | - | It was classified into the category 2 in EU. But based on the description that basis for judgment is unknown and the epidemiologic survey data in humans is all inadequate as an object of evaluation. And it cannot be classified due to insufficient data. In addition, there is description that some evidence of carcinogenic activity was observed in male rats, and equivocal evidence of carcinogenic activity is observed in the female mice in the carcinogenicity tests where carried out inhalation exposure of Stoddard solvent IIC of NTP to rats and mouse for two years (HSDB, 2005). |
| 7 | Toxic to reproduction | Not classified | - | - | - | It was considered as out of Category based on the description that clear reproductive toxicity was not observed at the dose in which general toxicity is observed in dam animals in an inhalation exposure test during the pregnancy rat (EHC 187 (1996)). |
| 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) | Because of descriptions in ACGIH (7th, 2001) and EHC 187 (1996) referring to confirmation of symptoms indicating effects on transient nervous systems such as decreased activity, hypomotility of coordinated movement, ataxia, tremors, and spasms through inhalation exposure tests using rats and dogs, and of descriptions in ACGIH (7th, 2001), EHC 187 (1996), and ATSDR (1995) referring to that effects on nervous systems such as headache, nausea, and dizziness and stimuli, and nasal irritation were confirmed in human exposure cases. So it was judged as Category 3 (anesthesia action, respiratory irritation). |
| 9 | Specific target organs/systemic toxicity following repeated exposure | Category 2 (liver, testes) | Health hazard | Warning | May cause damage to organs (liver, testes) through prolonged or repeated exposure | Based on descriptions that the effects on the liver was observed with the concentration within the guidance value range for Category 2 in the inhalation exposure test on guinea pigs (EHC 187 (1996)) and that reduction of sperm motility was observed in the inhalation exposure test on rats (NTP TR519 (HSDB, 2005)), it was classified into Category 2 (liver, teste). |
| 10 | Aspiration hazard | Category 1 | Health hazard | Danger | May be fatal if swallowed and enters airways | Since it is a hydrocarbon, and the 25-degree C dynamic viscosity calculated from the viscosity of the white spirit is 0.87-1.94 mm ² /s, and may be 20.5mm ² /s or less at 40 degrees C, and there is the descriptions that the aspiration may occur chemical pneumonia (PATTY (4th, 1994), EHC 187 (1996), and ATSDR (1995)), we classified it as Category 1. |

Environmental Hazards

| Hazard class | Classification | symbol | signal word | hazard statement | Rational for the classification |
|---|----------------|-------------|-------------|--|---|
| 11 Hazardous to the aquatic environment (acute) | Category 1 | Environment | Warning | Very toxic to aquatic life | It was classified into Category 1 from 48-hour LC50=0.42-2.3mg/L of Crustacea (Daphnia magna) (EHC187, 1996). |
| 11 Hazardous to the aquatic environment (chronic) | Category 1 | Environment | Warning | Very toxic to aquatic life with long lasting effects | Classified into Category 1, since acute toxicity is Category 1, not rapidly degrading (BOD: 12-13% (EHC187, 1996)), and bioaccumulation potential is unknown. |