GHS Classification

ID606 toluidine

CAS 26915-12-8 Date Classified: Sep. 1, 2005 (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	Flash point: >60degC and <=93degC
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: 482degC (Ullmanns (E) (5th, 1995) A27: p159-160) and UNRTDG Class: 6.1
10	Pyrophoric solids	Not applicable	–	–	–	Liquid (GHS definition)
11	Self-heating substances and mixtures	Not classified	–	–	–	UNRTDG Class: 6.1
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 metaloids(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: 6.1

Health Hazards

Hazard class		Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Classification not possible	–	–	–	No data available
1	Acute toxicity (dermal)	Classification not possible	–	–	–	No data available
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)	Classification not possible	–	–	–	No data available
2	Skin corrosion / irritation	Classification not possible	–	–	–	No data available
3	Serious eye damage / eye irritation	Classification not possible	–	–	–	No data available
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	–	–	–	No data available
5	Germ cell mutagenicity	Classification not possible	–	–	–	No data available
6	Carcinogenicity	Category 1B	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	P-toluidine is set to category 2 since it is classified into category A3 according to ACGIH (2001) and into 3 according to EU (2005). M-toluidine is set to the outside of category since it is classified into A4 according to ACGIH (2001). And o-toluidine is set to Category 1B, which is classified into A3 according to ACGIH (2001) but is categorized into group 2A according to IARC (Suppl 7, 1987), into 2A according to Japan Society for Occupational Health (Occupational Health Society advice 2005), and into category 2 in EU (2005). Therefore, isomer mixture toluidine was classified into Category 1B, the same as o-toluidine which serves as the severest segment among 3 isomer.
7	Toxic to reproduction	Classification not possible	–	–	–	No data available

8	Specific target organs/systemic toxicity following single exposure	Category 1 (systemic toxicity)	Health hazard	Danger	Cause damage to organs (systemic toxicity)	Based on the description that a significant toxicity is identified as the effect of 40ppm 60-minute exposure on humans (ACGIH (7th, 2001)), it was set as Category 1(systemic toxicity), since the target organ could not be specified.
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (systemic toxicity)	Health hazard	Danger	Causes damage to organs (systemic toxicity) through prolonged or repeated exposure	Because of the description that 10 ppm prolonged exposure causes a disease as effect on humans of ACGIH (7th, 2001), since target organ were not able to be specified, they were classified to Category 1 (systemic toxicity).
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	–	–	–	Insufficient data available.
11	Hazardous to the aquatic environment (chronic)	Classification not possible	–	–	–	Classification not possible due to lack of data