# GHS Classification

**ID1174** **Ethanaminium, 2-chloro-N,N,N-trimethyl-**

**CAS 999-81-5** Date Classified: Sep. 20, 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 | - | - | - | Solid (GHS definition) |
| 3 | Flammable aerosols | Not applicable | - | - | - | Not aerosol products |
| 4 | Oxidizing gases | Not applicable | - | - | - | Solid (GHS definition) |
| 5 | Gases under pressure | Not applicable | - | - | - | Solid (GHS definition) |
| 6 | Flammable liquids | Not applicable | - | - | - | Solid (GHS definition) |
| 7 | Flammable solids | Classification not possible | - | - | - | No data available |
| 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 applicable | - | - | - | Solid (GHS definition) |
| 10 | Pyrophoric solids | Classification not possible | - | - | - | No data available |
| 11 | Self-heating substances and mixtures | Classification not possible | - | - | - | No data 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 metaloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At). |
| 13 | Oxidizing liquids | Not applicable | - | - | - | Solid (GHS definition) |
| 14 | Oxidizing solids | Classification not possible | - | - | - | No data available |
| 15 | Organic peroxides | Not applicable | - | - | - | Organic compounds containing no -0-0- structure |
| 16 | Corrosive to metals | Classification not possible | - | - | - | Test methods applicable to solid substances are not available (Melting point: 236degC) |

**Health Hazards**

| Hazard class | | Classification | symbol | signal word | hazard statement | Rational for the classification |
|---|---|---|---|---|---|---|
| 1 | Acute toxicity (oral) | Category 4 | Exclamation mark | Warning | Harmful if swallowed | In two tests with rats, we compared the LD50 values for male and female rats. Then for the lower of these groups we compared the LD50 values between the two tests, and selected the lower of the two. Based on the value LD50 = 450.0 mg/kg (Agricultural Chemical Registration Data) which was the lower value of the data from the two tests, the substance was classified as Category 4. |
| 1 | Acute toxicity (dermal) | Not classified | - | - | - | It was set as the outside of Category based on rat LD50 >5000mg (Agricultural Chemical Registration Data). |
| 1 | Acute toxicity (inhalation: gas) | Not applicable | - | - | - | Solid (GHS definition) |
| 1 | Acute toxicity (inhalation: vapour) | Classification not possible | - | - | - | No data available |
| 1 | Acute toxicity (inhalation: dust, mist) | Category 5 | - | Warning | May be harmful if inhaled | It was set as Category 5 based on rat LC0 = 3.05mg/L and LC10-20 = 5.2mg/L (Agricultural Chemical Registration Data). |
| 2 | Skin corrosion / irritation | Category 3 | - | Warning | Causes mild skin irritation | Skin reactions against rabbits is only slight erythema with non-scraping part and scratch part, and a stimulative reaction has a statement that it disappeared within 72 hours. It was set as category 3 since weak skin irritations was admitted also in skin sensitivity test (Agricultural Chemical Registration Data). |
| 3 | Serious eye damage / eye irritation | Category 2B | - | Warning | Causes eye irritation | Based on the description that the redness in the conjunctiva and dropsy were observed slightly to the rabbit eye, and recovered within four days (EU Agricultural Chemical Registration Data), it was classified into Category 2B. |
| 4 | Respiratory/skin sensitization | Respiratory sensitization: Classification not possible; Skin sensitization: Not | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | Respiratory sensitization: no data available.<br>Skin sensitization: skin sensitization was carried out the outside of Category by the maximization method using a guinea pig based on the description (Agricultural Chemical Registration Data) that it is negative. |
| 5 | Germ cell mutagenicity | Not classified | - | - | - | There is no data of human multi generation epidemiology, an multi generation mutagenicity test, and a germ cell in vivo mutagenicity test, and there is the description it is negative in the somatic cell test in vivo mutagenicity test (small core test using mouse) (EU Agricultural Chemical Registration Data). So it is classified as the out of the Category. |
| 6 | Carcinogenicity | Not classified | - | - | - | In carcinogenicity tests in rat and mouse, based on the description that generating of treatment-related increased tumor was not observed in each examination (Agricultural Chemical Registration Data), it was out of the Category. |

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| 7 | Toxic to reproduction | Not classified | – | – | – | Although gigantocellularis were acknowledged by the testis of F3 male child in the three-generation reproduction study using a rat, it seems that there is no relation with administrations. Both parent and fetal animals did not have the other effects of this. In the teratogenic study using rats and rabbits, teratogenic was not acknowledged by highest dose as which general toxicity is regarded by parent animals (Agricultural Chemical Registration Data). Based on the above information, it was carried out the outside of Category. |
| 8 | Specific target organs/systemic toxicity following single exposure | Category 2 (systemic toxicity, nervous system) | Health hazard | Warning | May cause damage to organs (systemic toxicity, nervous system) | It was considered as Category 2 (systemicity, nervous system) based on the description (Agricultural Chemical Registration Data) that creeping, eye haemorrhages, spasms, collapse, diarrhea, tremors, conrtraction, salivation, and bloody tears etc., at dose (450-1012mg/kg) within the range of guidance value in Category 2 in rats and mouse were observed. |
| 9 | Specific target organs/systemic toxicity following repeated exposure | Not classified | – | – | – | Because of the description of few toxic effects with dosage higher than the guidance value range of Category 2 in the subacute toxicity study with rats during 90 days, and of the mention of no toxic effect with dosage in the chronic toxicity study with rats for two years (Agricultural Chemical Registration Data), it was judged out of Categories. |
| 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) | Category 3 | – | – | Harmful to aquatic life | It was classified into Category 3 from 48-hour EC50=51.1mg/L of Crustacea (Daphnia magna) (Agricultural Chemical Registration Data, 2005). |
| 11 | Hazardous to the aquatic environment (chronic) | Not classified | – | – | – | Based on NOEC=5 mg/L during 21 days of the shellfish (Daphnia magna) (IUCLID, 2000), though acute toxicity was Category 3. |