# GHS Classification

## ID1063 sodium selenite

**CAS 10102-18-8** Date Classified: Jun. 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 | – | – | – | Although ICSC (J) (1998) has the description "it is a flammable under specific conditions", the conditions or examination data are not available. And data is insufficient, it cannot be classified. |
| 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 | Not classified | – | – | – | Even if it contacts the normal temperature air, it does not ignite spontaneously. (Merck (13th, 2001) has the description "It is stabilized in the air".) |
| 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 classified | – | – | – | Stable to water (the water solubility is obtained) |
| 13 | Oxidizing liquids | Not applicable | – | – | – | Solid (GHS definition) |
| 14 | Oxidizing solids | Classification not possible | – | – | – | No data available |
| 15 | Organic peroxides | Not applicable | – | – | – | Inorganic compound |
| 16 | Corrosive to metals | Classification not possible | – | – | – | Test methods applicable to solid substances are not available. |

**Health Hazards**

| Hazard class | | Classification | symbol | signal word | hazard statement | Rational for the classification |
|---|---|---|---|---|---|---|
| 1 | Acute toxicity (oral) | Category 2 | Skull and crossbones | Danger | Fatal if swallowed | SPECIES: Rat<br>ENDPOINT: LD50<br>VALUE: 7mg/kg<br>REFERENCE SOURCE: RTECS(2004) |
| 1 | Acute toxicity (dermal) | Classification not possible | – | – | – | No data available |
| 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) | Classification not possible | – | – | – | No data available |
| 2 | Skin corrosion / irritation | Category 2 | Exclamation mark | Warning | Causes skin irritation | It was thought that there was stronger skin stimulativeness by the description in the humans (redness, a burn, discoloration, etc.) (ICSC (J) (1998), SITTIG (4th, 2002), and HSFS (2002)), and it was set as Category 2. |
| 3 | Serious eye damage / eye irritation | Category 2A | Exclamation mark | Warning | Causes serious eye irritation | It is considered that there is strong stimulativeness to the eye in human from the description (redness, pain, damage, etc.) ( ACGIH-TLV (2004), ICSC (J), (1998), SITTIG (4th, 2002), and HSFS (2002)), and it was classified into Category 2A. |
| 4 | Respiratory/skin sensitization | Respiratory sensitization: Classification not possible; Skin sensitization: Classification not | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | Respiratory sensitization: no data available<br>Skin sensitization: suppose that there is possibility of skin sensitization in the class of EU-Annex I (Access on May 2005). Although there is a case report which suggests human skin sensitization also in HSDB (2002), and there is the description of the human contact dermatitis in ICSC(J)(1998), since data is insufficient, it cannot classify. |

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|---|---|---|---|---|---|---|
| 5 | Germ cell mutagenicity | Category 2 | Health hazard | Warning | Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard) | Although there was positive reports (PATTY, 5th, 2001) of a somatic cell in vivo mutagenicity test (mouse bone marrow chromosomal aberration test), there was no report of a productive cell in vivo heredity toxicity examination. So it was set to Category 2. |
| 6 | Carcinogenicity | Not classified | – | – | – | As selenium compounds, it is categorized into D in IRIS (1993) and is categorized into Group 3 in IARC9 (1975). It was out of the Category. |
| 7 | Toxic to reproduction | Category 2 | Health hazard | Warning | Suspected of damaging fertility or the undorn child | Although there is no descriptions on general toxicity of parent animals in RTECS (2004) of Priority 2 document, there is description of influence of the postimplantation loss of embryo, the number of child and degree of survival of a child, and it was considered as Category 2. |
| 8 | Specific target organs/systemic toxicity following single exposure | Category 2 (respiratory, liver, heart, nervous system) | Health hazard | Warning | May cause damage to organs (respiratory, liver, heart, nervous system) | The substance was classified as Category 2 (respiratory system, liver, heart, nervous system) based on the reports concerning humans in ICSC (J) (1998) and SITTIG (4th, 2002), which are Priority 2 documents. |
| 9 | Specific target organs/systemic toxicity following repeated exposure | Category 2 (central nervous system, blood, kidneys, liver) | Health hazard | Warning | May cause damage to organs (central nervous system, blood, kidneys, liver) through prolonged or repeated exposure | Since there is description of effect on the central nervous systems, blood, the kidney, and liver in human in ICSC(J)(1998), SITTIG (4th, 2002), HSFS (2002) of Priority 2 document, and description of effect on the blood, the kidney, and liver in rats in HSDB (2002) and RTECS (2004) of Priority 2, it was classified into Category 2 (a central nervous systems, blood, kidney, 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) | Category 1 | Environment | Warning | Very toxic to aquatic life | It was classified into Category 1 from 96-hour LC50=0.22 mg/L of fishes (Fathead minnows) (CERI Hazard Data, 2002) . |
| 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 was Category 1, and it is a metallic compound, behavior in water is unknown., though less bioaccumulative (BCF=12 (existing chemical safety inspections data)). |