

GHS Classification

ID1344

Blasticidin S

CAS 2079-00-7

Date Classified: Jan. 23, 2007 (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 | Not classified | - | - | - | Non-pyrophoric when in contact with air at a room temperature (antibiotic of microorganism origin and non-pyrophoric structurally) |
| 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 metalloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At). |
| 13 Oxidizing liquids | Not applicable | - | - | - | Solid (GHS definition) |
| 14 Oxidizing solids | Not applicable | - | - | - | Organic compounds containing oxygen and the oxygen is chemically bonded only to carbon (but not to other elements). |
| 15 Organic peroxides | Not applicable | - | - | - | Organic compounds containing no -O-O- structure |
| 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 | based on the LD50 values of 55.9mg/kg (HSDB, 2004) and 16mg/kg (RTECS, 2004) in the oral administration tests, the lower value (16mg/kg) was adopted to classify the substance as Category 2. |
| 1 Acute toxicity (dermal) | Category 5 | - | Warning | May be harmful in contact with skin | It was set as Category 5 based on rat LD50 = 3100mg/kg (HSDB, 2004) and >500mg/kg (RTECS, 2004) of the dermal administration test. |
| 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 3 | - | Warning | Causes mild skin irritation | Since there is the description that rash on the human skin is caused, that a toxic effects is acknowledged to be to the skin, and that pathologic changes is seen on membrane as well as on the skin (HSDB, 2004), it was judged that it had slight skin stimulativeness leastways, and was set to category 3. |
| 3 Serious eye damage / eye irritation | Category 2A-2B | Exclamation mark | Warning | Causes serious eye irritation | Since there was description which stimulates the human eye (HSDB, 2004), it was set as Category 2A-2B. In addition, detailed categorization is difficult. |
| 4 Respiratory/skin sensitization | Respiratory sensitization: Classification not possible; Skin sensitization: Not classified | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | Respiratory sensitization: no data available. Skin sensitization: it considered as the outside of Category from the electronegative knowledge (HSDB, 2004) in a human patch examination. |
| 5 Germ cell mutagenicity | Classification not possible | - | - | - | There is only the negative knowledge (HSDB, 2004) in an Ames test, it cannot be classified because of insufficient data |
| 6 Carcinogenicity | Classification not possible | - | - | - | No negative impact was seen in a study of two-year administration to rat (chronic toxicity or carcinogenic) (HSDB, 2004), it cannot be classified since data is insufficient. |
| 7 Toxic to reproduction | Classification not possible | - | - | - | No data available |
| 8 Specific target organs/systemic toxicity following single exposure | Category 2 (heart) | Health hazard | Warning | May cause damage to organs (heart) | Since hypotension and arrhythmia (HSDB, 2004; RTECS, 2004) were taken up as an acute symptoms in humans, it was considered as Category 2 (heart). |

| | | | | | | |
|----|--|-----------------------------|---------------|--------|--|--|
| 9 | Specific target organs/systemic toxicity following repeated exposure | Classification not possible | - | - | - | Although a negative impact was not observed in an administration (chronic toxicity or carcinogenic) study for two years in rat (HSDB, 2004), it cannot be classified because of insufficient data. |
| 10 | Aspiration hazard | Category 1 | Health hazard | Danger | May be fatal if swallowed and enters airways | Category 1 because of "aspiration pneumonitis as an acute symptom in human beings." (HSDB, 2004) |

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 |