

GHS Classification

ID309

CAS 10326-27-9

Barium chloride, dihydrate

Date Classified: Aug. 22, 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 | — | — | — | Containing no chemical groups with explosive properties |
| 2 Flammable gases | Not applicable | — | — | — | Classified as "solid" according to GHS definition |
| 3 Flammable aerosols | Not applicable | — | — | — | Not aerosol products |
| 4 Oxidizing gases | Not applicable | — | — | — | Classified as "solid" according to GHS definition |
| 5 Gases under pressure | Not applicable | — | — | — | Classified as "solid" according to GHS definition |
| 6 Flammable liquids | Not applicable | — | — | — | Classified as "solid" according to GHS definition |
| 7 Flammable solids | Not classified | — | — | — | Non-flammable (ICSC, 2004) |
| 8 Self-reactive substances and mixtures | Not applicable | — | — | — | Containing no chemical groups with explosive or self-reactive properties |
| 9 Pyrophoric liquids | Not applicable | — | — | — | Classified as "solid" according to GHS definition |
| 10 Pyrophoric solids | Not classified | — | — | — | Non-flammable (ICSC, 2004) |
| 11 Self-heating substances and mixtures | Not classified | — | — | — | Non-flammable (ICSC, 2004) |
| 12 Substances and mixtures, which in contact with water, emit flammable gases | Not classified | — | — | — | Stable to water (water solubility: 37.5g/100mL (26degC), ICSC (2004)) |
| 13 Oxidizing liquids | Not applicable | — | — | — | Classified as "solid" according to GHS definition |
| 14 Oxidizing solids | Classification not possible | — | — | — | Classification not possible due to lack of data, though being inorganic compounds containing chlorine |
| 15 Organic peroxides | Not applicable | — | — | — | Not organic compounds |
| 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) | Classification not possible | — | — | — | No data available |
| 1 Acute toxicity (dermal) | Classification not possible | — | — | — | No data available |
| 1 Acute toxicity (inhalation: gas) | Not applicable | — | — | — | Due to the fact that the substance is "solid" according to the GHS definition. |
| 1 Acute toxicity (inhalation: dust, mist) | 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 | — | — | — | ICSC (2002) presents evidence of "reddening," suggesting the skin irritation potential of the substance. However, classification is not possible due to lack of study detail. |
| 3 Serious eye damage / eye irritation | Classification not possible | — | — | — | ICSC (2002) presents evidence of "reddening," suggesting the eye irritation potential of the substance. However, classification is not possible due to lack of study detail. |
| 4 Respiratory/skin sensitization | Respiratory sensitization: Classification not possible Skin sensitization: Classification not possible | (Respiratory sensitization) — (Skin sensitization) — | (Respiratory sensitization) — (Skin sensitization) — | (Respiratory sensitization) — (Skin sensitization) — | Respiratory sensitization: No data available Skin sensitization: No data available |
| 5 Germ cell mutagenicity | Classification not possible | — | — | — | Based on the absence of data on multi-generation mutagenicity tests, germ/somatic cell mutagenicity tests in vivo and germ/somatic cell genotoxicity tests in vivo, and no positive data on mutagenicity tests in vitro (several indices), described in NTP DB (Access on May 2006). |
| 6 Carcinogenicity | Classification not possible | — | — | — | Classification not possible based on expert judgment in the absence of existing classification, though CICAD 33 (2001) provides some data on toxicity studies. |
| 7 Toxic to reproduction | Classification not possible | — | — | — | Insufficient data available |
| 8 Specific target organs/systemic toxicity following single exposure | Category 1 (cardiovascular system, muscle) Category 2 (nervous system) Category 3 (respiratory tract irritation) | Health hazard | Danger | Causes damage to organs (cardiovascular system, muscle) May cause damage to organs (nervous system) (Respiratory tract irritation) May cause respiratory irritation | Based on the human evidence: "Intentional or accidental ingestion of barium compounds causes gastroenteritis (vomiting, diarrhea, abdominal pain), hypokalemia, cardiac arrhythmias and skeletal muscle paralysis" (CICAD 33 (2001)), "irritates the eye, skin, respiratory tract; may adversely affect nervous system; may cause hypokalemia; may cause heart/muscle disorder; may lead to death" (ICSC (J) (1999)). Since the priority rating of ICSC (J) (1999) is 2, the effects are classified into Category 1 (cardiovascular system, muscle), Category 2 (nervous system) and Category 3 (respiratory tract irritation). |
| 9 Specific target organs/systemic toxicity following repeated exposure | Classification not possible | — | — | — | Insufficient data available |
| 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 | - | - | - | Classification not possible due to lack of data |
| 11 Hazardous to the aquatic environment (chronic) | Classification not possible | - | - | - | Classification not possible due to lack of data |