

## GHS Classification

**ID600**

**Lead distearate**

**CAS 1072-35-1**

Date Classified: Jul. 24, 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  | Not classified              | -      | -           | -                | Non-combustible (Weiss (2nd, 1985))   |
| 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-combustible (Weiss, 2nd, 1985)  |
| 11 Self-heating substances and mixtures                                       | Not classified              | -      | -           | -                | Non-combustible (Weiss, 2nd, 1985)  |
| 12 Substances and mixtures, which in contact with water, emit flammable gases | Not classified              | -      | -           | -                | Since aqueous solubility is measured, it is stable in the water. (Merck (13th, 2001), SRC (2006))   |
| 13 Oxidizing liquids  | Not applicable              | -      | -           | -                | Solid (GHS definition)  |
| 14 Oxidizing solids   | Not applicable              | -      | -           | -                | Organic compounds containing oxygen (but not chlorine and fluorine) 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)                   | Classification not possible   | -   | -   | -   | Although there are two data (IUCI (2000)) of rat LD50> 15000mg/kg and LD50> 2000mg/kg, it cannot classify with only these data.  |
| 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             | 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 | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)- | (Respiratory sensitization)-; (Skin sensitization)-   | 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) | It was classified into R by NTP(NTP (2005)), into Group 2A by IARC (IARC 87 (2004)), into A3 by ACGIH(ACGIH-TLV (2004)), and into 2B by Japan Society for Occupational Health(JETOC specially data No.190 (2004)). So it was set as Category 1B. |

|    |  |  |               |        |  |  |
|----|--|--|---------------|--------|--|--|
| 7  | Toxic to reproduction  | Category 1A  | Health hazard | Danger | May damage fertility or the unborn child   | There is no reproductive toxicity data as lead stearate. However, since lead is known as the development neural toxicity material and reproductive toxicity in human (ACGIH-TLV (2004), ATSDR (draft 2005)), it is classified into the Category 1A. Refer to [ID 168, a lead, CAS NO:439-92-1], [ID 48, oxidization lead (II), CAS NO:1317-36-8], and [lead acetates (II), CAS NO:101-01-2].   |
| 8  | Specific target organs/systemic toxicity following single exposure   | Category 1 (blood system, kidneys, nervous system) | Health hazard | Danger | Cause damage to organs (blood system, kidneys, nervous system)   | There is no information about a single exposure to lead stearate. However, as toxicity of the inorganic lead compounds, besides the inhibition of hemoglobin synthesis induced to humans by delta-aminolevulinic acid and heme synthase inhibition, anemia caused by the shortening of red cell life span, interstitial disorders, the reduction of urinary output, the proximal tubule damages which cause the Fanconi syndromes represented by albuminuria, bloody urine, urine pillars, glucosuria and amino acid urine, etc. are observed. As they act on the peripheral nerves, especially weakness of the line of the limbs, pain, and convulsion are identified, and as their influences on the central nerve systems such as ataxie, headach, abnormal sebsation, depression, and coma are identified with high concentration exposures. These influences  |
| 9  | Specific target organs/systemic toxicity following repeated exposure | Category 1 (blood system, kidneys, nervous system) | Health hazard | Danger | Causes damage to organs (blood system, kidneys, nervous system) through prolonged or repeated exposure | There is no repetitive exposure information about lead stearate. However, the hemoglobin composition prevention which originated in delta-aminolevulinic acid and heme synthetases inhibition, the anemia by shortening of red cell life span, an interstitial disorders, oliguria, and the proximal tubule damages which assumes the Fanconi syndromes represented by albuminuria, bloody urine, a urinary cast, diabetes, amino acid urine to human as toxicity of the inorganic lead compounds are seen. It acts on the peripheral nerves, especially the weakness, pain, and convulsion of the muscles of extremities are acknowledged, and in high concentration exposures the effects on the central nervous systems such as ataxie, headache, dysesthesia, depression, and a coma, etc. are acknowledged. It was classified to as Category 1 (blood systems, kidney, nervous system), based on these effects which are seen equally in acute effect or chronic effect (ACGIH-TLV (2004)). |
| 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 | -      | -           | -                | No data available               |
| 11 Hazardous to the aquatic environment (chronic) | Classification not possible | -      | -           | -                | No data available.              |