

## GHS Classification

**ID693**

**2-chloroacetophenone**

**CAS 532-27-4**

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              | -      | -           | -                | UNRTDG Class: 6.1                                                                                                                                              |
| 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              | -      | -           | -                | Since it was judged that there was no spontaneous combustibility because the flash point was 118 degC (ICSC (J), (2002)), it was defined as "out of Category". |
| 11 Self-heating substances and mixtures                                       | Classification not possible | -      | -           | -                | The test suitable for the solid state material with a melting points of 54 - 60 degC (140 degC or less) has not been established.                              |
| 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 chlorine (but not fluorine) and the oxygen and chlorine are chemically bonded only to carbon.                          |
| 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 3                                                                             | Skull and crossbones                                               | Danger                                                    | Toxic if swallowed                                                                 | SPECIES: Rat<br>ENDPOINT: LD50<br>VALUE: 127 mg/kg<br>REFERENCE SOURCE: ACGIH (7th, 2001)                                                                                                                                                             |
| 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                                                             | The chemical burns was seen on humans (IRIS (1981)), and erythema, edema and exfoliation was reported for animals (ACGIH (2001)), therefore, it was classified as Category 2 .                                                                        |
| 3 Serious eye damage / eye irritation     | Category 1                                                                             | Corrosion                                                          | Danger                                                    | Causes serious eye damage                                                          | It was set as Category 1 based on the publication that an irreversible severe corneal disorder is seen by animal studies and iritis, conjunctivitis, blepharitis, etc. are seen (ACGIH (2001)).                                                       |
| 4 Respiratory/skin sensitization          | Respiratory sensitization: Classification not possible; Skin sensitization: Category 1 | (Respiratory sensitization)-; (Skin sensitization)Exclamation mark | (Respiratory sensitization)-; (Skin sensitization)Warning | (Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction | Respiratory sensitization: No data<br>Skin sensitization: Since there is a statement that skin sensitization exists in humans (IRIS (1991), ACGIH (2001)) and it has also been identified in animals(ACGIH (2001)), it was referred to as Category 1. |
| 5 Germ cell mutagenicity                  | Classification not possible                                                            | -                                                                  | -                                                         | -                                                                                  | We found no in vivo mutagenicity test results and no in vitro strong positive result in multiple indices. Therefore we presupposed that we could not categorize it according to technical guideline.                                                  |
| 6 Carcinogenicity                         | Not classified                                                                         | -                                                                  | -                                                         | -                                                                                  | Based on what is categorized according to ACGIH with A4 (ACGIH (2001)), it carried out the outside of Category by the technical guide.                                                                                                                |
| 7 Toxic to reproduction                   | Classification not possible                                                            | -                                                                  | -                                                         | -                                                                                  | No data available                                                                                                                                                                                                                                     |

|    |                                                                      |                                                         |                                 |         |                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----|----------------------------------------------------------------------|---------------------------------------------------------|---------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | Specific target organs/systemic toxicity following single exposure   | Category 2 (respiratory); Category 3 (narcotic effects) | Health hazard; Exclamation mark | Warning | May cause damage to organs (respiratory); May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects) | Although there are pulmonary oedema, and irritation to nose/throat, and laryngotracheo-bronchitis occurs with coughing, and dyspnoea, almost all of these symptoms are recovered after the cancel of the exposure in human (IRIS (1991), ACGIH (7th, 2001), RTECS (2004)), it is classified into Category 2 (respiratory tract system). There is the description that there are the symptoms such as general fatigue, lethargica, faint (IRIS (1991)). So it is classified into Category 3 (anesthetic action). |
| 9  | Specific target organs/systemic toxicity following repeated exposure | Category 1 (lung)                                       | Health hazard                   | Danger  | causes damage to organs (lung) through prolonged or repeated exposure                                                               | It was classified to as Category 1 (lung) based on description of congestion and edema of lungs of humans (ACGIH (7th, 2001)).                                                                                                                                                                                                                                                                                                                                                                                  |
| 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 | -      | -           | -                | Insufficient data available.                    |
| 11 Hazardous to the aquatic environment (chronic) | Classification not possible | -      | -           | -                | Classification not possible due to lack of data |