

## GHS Classification

**ID739**

**Calcium oxide**

**CAS 1305-78-8**

Date Classified: Aug. 18, 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	-	-	-	Not classified because of "Non-combustible substance" (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	-	-	-	Not classified because of "Non-combustible substance" (Weiss, 2nd, 1985)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not classified because of a non-combustible substance (Weiss, 2nd, 1985)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Although it reacted violently with water, product was nonflammable in calcium hydroxide. So it carried out the outside of Category.
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	No data available
15 Organic peroxides	Not applicable	-	-	-	Inorganic substance
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 5	-	Warning	May be harmful if swallowed	There is no rat data, and it was classified into Category 5 from a data of mouse LD50: 3059mg/kg (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 1C	Corrosion	Danger	Causes severe skin burns and eye damage	Since it has corrosivity on skin (ICSC (1997)) is very irritating to damp skin (ACGIH (2001)), and is designated to UN classification class 8-III, it was classified into Category 1C.
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	It categorized into Category 1 based on the corrosive to eye (ICSC (1997)), and corrosion of the skin / stimulative GHS classification being Category 1C.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: Since there is no data, it cannot be classified. Skin sensitization: It was put outside of the Category according to the negative statement (IUCLID (2000)) of a test in humans.
5 Germ cell mutagenicity	Classification not possible	-	-	-	We found the description that it gave negative result in mitotic recombination tests by yeast cells, and it gave negative in the Ames examination (IUCLID (2000)). However, we found no in vivo results and we presupposed we could not classify it.
6 Carcinogenicity	Classification not possible	-	-	-	Classification not possible due to lack of data and reports
7 Toxic to reproduction	Classification not possible	-	-	-	It was considered that it cannot be classified because of insufficient data although it was described "no effects" in one-generation test of rats and mice (IUCLID (2000)).

8	Specific target organs/systemic toxicity following single exposure	Category 1 (respiratory); Category 2 (systemic toxicity, digestive system)	Health hazard	Danger	Cause damage to organs (respiratory); May cause damage to organs (systemic toxicity, digestive system)	There is a statement that the inflammation of a respiratory tract (ACGIH (2001)) and pneumonitis (HSDB (2005)) are caused from dust inhalation and it was set as category 1 (respiratory systems), and if it drinks by mistake, a pulse will be quick and will become weak, breathing is quick and becomes shallow, body temperature falls, it becomes difficult to breathe by cancer of glottis, and will be in a shock states. There is the description which also produces esophageal, the stomach perforation (HSDB (2005)), but it was Priority2, it classified into Category 2 (whole body toxicity, digestive organ).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (respiratory organs)	Health hazard	Danger	Causes damage to organs (respiratory organs) through prolonged or repeated exposure	It was classified into Category 1 (respiratory systems) according to the statement of ulcers and perforations of nasal septum (ACGIH (2001)), and (IOSC (1997)).
10	Aspiration hazard	Category 1	Health hazard	Danger	May be fatal if swallowed and enters airways	Category 1 because of "aspiration pneumonia to human beings."(HSDB, 2005)

### Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Not classified	-	-	-	It carried out the outside of Category from 96-hour LC50=1070mg/L of fishes (Carp) (IUCLED, 2000).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since not water-insoluble (water solubility=1200mg/L(HSDB, 2004)) and acute toxicity is low.