

## GHS Classification

**ID1059**

**"mercurous oxide"**

**CAS 15829-53-5**

Date Classified: Apr. 20, 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	-	-	-	ERG (Guide 151 and 2004) corresponding to the UNRTDG No.(1641) has a statement that it is "nonflammable", and it was classified as out of Category.
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" ERG(Guide151, 2004) corresponding to UNRTDG No. 1641
11 Self-heating substances and mixtures	Not classified	-	-	-	Since ERG (Guide151, 2004) corresponding to the U.N. number (1641) peculiar to a substance has a "nonflammable" statement, it carried out the outside of category.
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Stable to water (insoluble in water)
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Not classified	-	-	-	UNRTDG No. 1641, Class: 6.1; PG II (Not 5.1).
15 Organic peroxides	Not applicable	-	-	-	Inorganic compound
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	-	-	-	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	From the description with the possibility which indicates skin irritation in humans (DFGOT, vol.15, 2001 [as inorganic mercury compounds]; HSFS, 2001[irritate and burn]), it was thought that there was irritation and it was set as Category 2.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	Due to the description that it may irritate to the eye (HSFS, 2001), it was classified into Category 2B.
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 available. Skin sensitization: since metallic mercury and inorganic mercury compound (as Hg) were made into those with skin sensitization (MAK/BAT, 2005; DFGOT, vol.15, 2001), they were set to Category 1.
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	In ATSDR (1999), since it estimated that mercury and mercury compounds induced chromosomal abnormality to the animal somatic cell in an in vivo, they were set to Category 5.
6 Carcinogenicity	Not classified	-	-	-	As inorganic mercury compounds, it was out of the Category. Since it is classified into IARC Group 3 (IARC, 58, 1993) and ACGIH A4 (ACGIH-TLV, 2004).

7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Since the effect on generating (California EPA, Proposition 65 List of Chemicals, 2005) and reproductive (ACGIH-TLV, 2004) was indicated as mercury and mercury compounds or inorganic mercuries, it was considered as Category 2.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (kidneys); Category 3 (respiratory tract irritation)	Health hazard; Exclamation mark	Danger; Warning	Cause damage to organs (kidneys); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	The substance was classified as Category 1 (kidneys) and Category 3 (airway irritant) based on the reports concerning humans in Priority 1 documents that the target organs of the substance in the inorganic mercury compound are the kidneys (DFGOT, vol.15, 2001), and the report of respiratory organ irritant properties in humans in a Priority 2 document (HSFS, 2001).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (central nervous system, kidneys)	Health hazard	Danger	Causes damage to organs (central nervous system, kidneys) through prolonged or repeated exposure	Since the effect on the central nervous system and the kidney to humans by inorganic mercury compounds is indicated in Priority 1 document (ACGIH-TLV, 2004:EHC, 118, 1991), and the effect on the kidney was suggested in Priority 2 document (HSFS, 2001), it was classified into Category 1 (central nervous systems,kidney).
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.