## **GHS Classification**

## ID1057

CAS 10045-94-0 Physical Hazards mercury dinitrate

94–0 Date Classified: Apr. 20, 2006 (Environmental Hazards: Mar. 31, 2006) ds Reference Manual: GHS Classification Manual (Feb. 10, 2006)

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Haz	ard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Explosives	Not classified	-	-	-	Not Classified because of UNRTDG No. 1625, Class: 6.1, II and not explosive solely, though the substance contains N-O bonds as chemical groups associated with explosive properties present. (Reactions of the substance with several kinds of compounds such as acetylenes or ethanols lead to explosive products.)
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 (ICSC (J) (2000))
8	Self-reactive substances and mixtures	Not classified	-	-	-	Not classified based on UNRTDG No. 1625, Class: 6.1, PGII
ę	Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10	Pyrophoric solids	Not classified	-	-	-	Non-combustible (ICSC (J), 2000)
11	Self-heating substances and mixtures	Not classified	_	-	-	Not combustible (ICSC(J) (2000))
12	Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	_	-	Stable to wate (HSDB, 2003)
13	, Oxidizing liquids	Not applicable	_	-	-	Solid (GHS definition)
14	Oxidizing solids	Not classified	_	-	-	Not classified because of UNRTDG No. 1625, Class: 6.1, PGII, though it is a strong oxidizing agent (ICSC(J), 2000; Sax, 11th, 2004).
15	Organic peroxides	Not applicable	-	-	-	Inorganic compound
16	Corrosive to metals	Classification not	-	-	-	Test methods applicable to solid substances are not available.

## Health Hazards

Haz	ard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Category 2	Skull and	Danger	Fatal if swallowed	SPECIES: Rat; ENDPOINT: LD50;VALUE:26mg/kg; REFERENCE SOURCE: RTECS (2005)
1	Acute toxicity (dermal)	Category 2	Skull and crossbones	Danger	Fatal in contact with skin	It is based on rat dermal LD50= 75mg/kg (RTECS, 2005).
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 1A-1C	Corrosion	Danger	Causes severe skin burns and eye damage	It was set as Category 1A-1C from the description with the possibility which indicated skin corrosivities (ICSC, 2000) and skin irritation to humans (DFGOT, vol.15, 2001[as inorganic mercury compounds]; HSFS, 1993). [view] When subdivision needs to be performed, it is desirable to be seto as Category 1A from a viewpoint of safety.
3	Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	There is the descripiton of oculo corrosiveness (ICSC, 2000), and it is classified into Category 1 in description of skin corrosivenesses. So it was classified into Category 1.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Category1	(Respiratory sensitization)-; (Skin sensitization)Exclam ation mark	(Respiratory sensitization)-; (Skin sensitization)W arning	(Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction	Respiratory sensitization: no data available. Skin sensitization: metal mercury and inorganic mercury compound (as Hg) were set to Category 1 from description with the possibility which there is skin sensitization (MAK/BAT, 2005; DFGOT, vol.15, 2001), and shows skin sensitization in ICSC (2000).
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 3.

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 undorn 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 2 (respiratory organs)	Health hazard	Danger; Warning	Cause damage to organs (kidneys); May cause damage to organs (respiratory organs)	The substance was classified as Category 1 (kidneys) and Category 2 (respiratory organs) 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 on the reports of the effects on the kidneys and airways corrosivity or respiratory organ irritant properties in Priority 2 documents (ICSC, 2000; HSFS, 1993; SITTIG, 4th, 2002).
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 in Priority 1 document, the effect on the central nervous systems and the kidneyto humans by inorganic mercury compounds was described (ACGIH-TLV, 2004;EHC, 118, 1991), and the effect on the nervous system and the kidney by the product was indicated in Priority 2 document (ICSC, 2000;SITTIG, 4th, 2002), it was classified into Category 1 (a central nervous systems, the kidney).
10	Aspiration hazard	Classification not	_	-	_	No data available

## Environmental Hazards

F	lazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
	11 Hazardous to the aquatic environment (acute)	Category 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 96-hour LC50=33microg/L(mercury (II) nitrate concentration equivalent: 53microg/L) of fishes (Rainbow trout) (EHC86, 1989).
	11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Classified into Category 1, since acute toxicity was Category 1, and it is a metallic compound, behavior in water and bioaccumulative potential are unknown.