

## GHS Classification

**ID1069**

**nicotine sulphate**

**CAS 65-30-5**

Date Classified: Dec. 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 UNRTDG No. 1685, Class: 6.1, PG II (not Class: 4.1) though "Flammable" (Sax, 11th, 2004)
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 UNRTDG No. 1658, Class: 6.1, II (not Class: 4.2)
11 Self-heating substances and mixtures	Not classified	-	-	-	UNRTDG is classified into 6.1 and II according to the U.N. number (1658) peculiar to this substance. Since 4.2 which indicates a self-febrility chemistry article was not attached, it carried out the outside of Category.
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	Classification not possible	-	-	-	No data available
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 2	Skull and crossbones	Danger	Fatal if swallowed	Among rat LD50 = 50mg/kg (RTECS(2003)) and 83mg/kg (HSDB(2003)), the lower value (50mg/kg) was adopted to classify as category 2. [Note] In addition, also refer to nicotine (ID 608, CAS:54-11-5) about healthy hazards.
1 Acute toxicity (dermal)	Category 1	Skull and crossbones	Danger	Fatal in contact with skin	Rat LD50 = 285mg/kg, and rabbit LD50 = 50mg/kg (both are RTECS (2003)). The lower value of rabbit LD50 value was adopted, and it was set as Category 1.
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	In Priority 2, since there was description which indicates irritation to human skin (ICSC (J), (1997), SITTING (4th, 2002), HFSF (2002)), it was set as Category 2.
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	In Priority 2, since there is the description which indicates irritation to the human eye (ICSC (J), (1997), SITTING (4th, 2002), HFSF (2002)), it was classified into Category 2A-2B. In addition, it is difficult to subdivide the Category of this data.
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)-	Respiratory sensitization: no data available. Skin sensitization: the result of the patch test using this material to the vegetable producer who produced the dermatitis by agricultural chemicals in Priority 2, there is a report that 10-28% of people showed susceptibility (HSDB(2003)), it is only one example, and data of a report is insufficient and it cannot classify.
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data available
6 Carcinogenicity	Classification not possible	-	-	-	No data available

7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	This product was also considered as Category 2 as well as nicotine, since head facial anomaly are seen by the intraperitoneal injection into pregnant mice of this product (RTECS (2003)), there is description "it is shown in the animal experiments that it may have toxic effects on human reproduction" (ICSC (J) (1997), SITTING (4th, 2002), HSFS (2002)), the affect on reproduction by nicotine (ID 608, CAS: 54-11-5) was suggested. Refer to the reproductive toxicity of nicotine (ID 608, CAS: 54-11-5).
8	Specific target organs/systemic toxicity following single exposure	Category 2 (central nervous system); Category 3 (respiratory tract irritation)	Health hazard	Warning	May cause damage to organs (central nervous system); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	The substance was classified as Category 2 (central nervous system) and Category 3 (airway irritant). Because it is reported in Priority 2 that it affects the central nervous system in humans (ICSC (J) (1997), SITTING (4th, 2002)), and that inhalation of it causes irritation to nose and throat (SITTING (4th, 2002)). It is also reported that nicotine has irritant properties to the peripheral autonomic nervous system and the nerve terminals of skeletal muscle (Refer to nicotine (ID608, CAS: 54-11-5)).
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Insufficient data available
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)	Category 2	-	-	Toxic to aquatic life	It was classified into Category 2 from 48-hour EC50=3250microg/L of Crustacea (Daphnia magna) (AQUIRE, 2003).
11 Hazardous to the aquatic environment (chronic)	Category 2	Environment	-	Toxic to aquatic life with long lasting effects	Classified into Category 2, since acute toxicity was Category 2, and supposed not rapidly degrading (BIOWIN), though supposed less bio-accumulative (log Kow=0.4(PHYSPROP Database, 2005)).