

## GHS Classification

**ID1186**

**CAS 105827-78-9**

### Physical Hazards

**1-[(6-Chloro-3-pyridyl)methyl]imidazolidine-2-(N-nitro)imine**

Date Classified: Nov. 20, 2006 (Environmental Hazards: Mar. 31, 2006)

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Not classified	-	-	-	Not Classified because of "The exothermic decomposition energy is lower than 300J/g and the exothermal temperature of decomposition starts lower than 500degC"(Agricultural Chemicals Registration Data, Bayer CropScience), though the substance contains nitrogen atoms adjacent to each other and N-O bonds as chemical groups associated with explosive properties present and has the oxygen balance calculated at -128.3, higher than -200 of the criteria.
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	Classification not possible	-	-	-	No data available
8 Self-reactive substances and mixtures	Classification not possible	-	-	-	Classification not possible due to lack of data, though the substance contains nitrogen atoms adjacent to each other and N-O bonds as chemical groups with explosive or self-reactive properties present
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
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 (Melting point: 144degC)

### Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 4	Exclamation mark	Warning	Harmful if swallowed	By the technical guidelines, we compared the LD50 values for male and female rats in two tests (Agricultural Chemical Registration Data). Then we selected the lower value for each test (424mg/kg and 410mg/kg). Based on the lower of these two values (LD50=410mg/kg), the substance was classified as Category 4.
1 Acute toxicity (dermal)	Not classified	-	-	-	It was set as the outside of Category based on LD50 >2000mg/kg and LD50 >5000mg/kg in two rat examinations (Agricultural Chemical Registration Data).
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	-	-	-	There was an examination of a rat Agricultural Chemical Registration Data. But it cannot be classified since LC50 value is not acquired.
2 Skin corrosion / irritation	Not classified	-	-	-	It was carried out the outside of Category based on the statement that it did not acknowledge the skin observation in any animal in rabbit test (Agricultural Chemical Registration Data).
3 Serious eye damage / eye irritation	Not classified	-	-	-	Due to the description that ocular symptoms was not observed in each animal in rabbits test (Agricultural Chemical Registration Data), it was set as the out of Category.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Not classified	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: no data available. Skin sensitization: in the Maximization method using a guinea pig, based on the description (Agricultural Chemical Registration Data) that the positive rate of skin sensitization was 0%, it carried out the outside of Category.
5 Germ cell mutagenicity	Not classified	-	-	-	There is no result of human multi-generation epidemiology, multi-generation mutagenicity test, and germ cell in vivo mutagenicity test, and there is the description that it is negative in the somatic cell in vivo mutagenicity tet (small core test using mouse bone marrow cells) (Agricultural Chemical Registration Data). So it is classified as the out of the Category.

6	Carcinogenicity	Not classified	-	-	-	In two examinations in rat, and two examinations in mouse, due to the description that carcinogenicity was not observed in each examination (Agricultural Chemical Registration Data). It was out of the Category.
7	Toxic to reproduction	Not classified	-	-	-	Although there was a statement that inhibition of infant's weight gains was seen in rat while infant's weight reductions and ossification delayed were seen in rabbit in the dose in which general toxicity was seen in parent animals (Agricultural Chemical Registration Data). And the other toxicity was not indicated, it was set as the outside of Category.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (nervous system)	Health hazard	Danger	Cause damage to organs (nervous system)	It was considered as Category 1 (nerve systems) based on the description (Agricultural Chemical Registration Data ) that indifference, constrained respiration, hypomobility, transient shaking, the transient spasm, sedation, and breathing abnormality were observed in oral administration in rats at the dose within the range of guidance value in Category 1 (100mg/kg and more than 260mg/kg).
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	In rats, toxicity is not confirmed with the dosage of 60.9mg/kg within the limit of guidance value in Category 2, but with more than the dosage (300.2mg/kg), there is confirmation of decreased weight gain and effects on liver (unicellular necroses, circumscribed necroses, and round cell infiltration) (Agricultural Chemical Registration Data). Because it cannot be denied the toxicity within the guidance value limits in Category 2 for above data, no classification is available for lack of data.
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 3	-	-	Harmful to aquatic life	It was classified into Category 3 from 48-hour EC50=85mg/L of Crustacea (Daphnia magna) (Agricultural Chemical Registration Data, 2004).
11 Hazardous to the aquatic environment (chronic)	Category 3	-	-	Harmful to aquatic life with long lasting effects	Classified into Category 3, since acute toxicity was Category 3 and rapid degradability and bioaccumulation potential are unknown.