# GHS Classification

**ID1322** 1-(4-nitrophenyl)-3-(3-pyridylmethyl)urea

**CAS 53558-25-1** Date Classified: Mar. 15, 2007 (Environmental Hazards: Mar. 31, 2006)

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

## Physical Hazards

| | Hazard class | Classification | symbol | signal word | hazard statement | Rational for the classification |
|---|---|---|---|---|---|---|
| 1 | Explosives | Classification not possible | – | – | – | Classification not possible due to lack of data, though the substance contains N-O bonds as chemical groups with explosive properties present and has the oxygen balance calculated at -170.4, 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 | Not classified | – | – | – | Although the grouping relevant to explosive (N-O) is included, the grouping relevant to autoreactive is not included. The uses were pesticide (rodenticide) and it was not considered autoreactive, and it was made into the outside of Category. |
| 9 | Pyrophoric liquids | Not applicable | – | – | – | Solid (GHS definition) |
| 10 | Pyrophoric solids | Not classified | – | – | – | Non-pyrophoric when in contact with air at a room temperature and used as agricultural chemicals (raticides). |
| 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 metaloids(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 -0-0- 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 1 | Skull and crossbones | Danger | Fatal if swallowed | Based on the LD50 = 4.75mg/kg obtained by statistically processing the rat LD50 values (4.75, 18, and 6.2mg/kg) of HSDB (2005) and RTECS (1997), the substance was classified as Category 1. |
| 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) | Not applicable | – | – | – | The vapor pressure of this product is very low (it is 4.52*10^(-7) Pa at 25degC), and it was considered to be difficult to carry out vapor exposure. So it was out of a classification. |
| 1 | Acute toxicity (inhalation: dust, mist) | Classification not possible | – | – | – | No data available |
| 2 | Skin corrosion / irritation | Classification not possible | – | – | – | No data available |
| 3 | Serious eye damage / eye irritation | Classification not possible | – | – | – | No data available |
| 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)- | No data available |
| 5 | Germ cell mutagenicity | Classification not possible | – | – | – | No data available |
| 6 | Carcinogenicity | Classification not possible | – | – | – | No data available |
| 7 | Toxic to reproduction | Classification not possible | – | – | – | No data available |

| | | | | | | |
|---|---|---|---|---|---|---|
| 8 | Specific target organs/systemic toxicity following single exposure | Category 2 (pancreas, cardiovascular system, eye, nervous system) | Health hazard | Warning | May cause damage to organs (pancreas, cardiovascular system, eye, nervous system) | There is description that in DHP(13th, 2002), SITTIG(4th, 2002), HSFS(2002) of Priority 2 document, it affects pancreatics, a cardiovascular system, eyes, and a nervous system in human, and there are large number of the case report of the humans and animal data which are supportive (HSDB (2005)), it was considered as Category 2 (pancreatic, cardiovascular systems, eyes, nervous systems). |
| 9 | Specific target organs/systemic toxicity following repeated exposure | Classification not possible | – | – | – | Although there is a statement which suggests the effect on the human pancreas, a nervous system, and an eye (SITTIG (4th, 2002) and HSFS (2002)), since the data which is supported is not found and data is insufficient, it cannot be classified. |
| 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. |