

## GHS Classification

**ID505**

**CAS 33089-61-1**

### Physical Hazards

**3-methyl-1,5-di(2,4-xylyl)-1,3,5-triazapenta-1,4-diene**

Date Classified: Dec. 18, 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 applicable	—	—	—	Containing no chemical groups with explosive properties
2 Flammable gases	Not applicable	—	—	—	Classified as "solid" according to GHS definition
3 Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4 Oxidizing gases	Not applicable	—	—	—	Classified as "solid" according to GHS definition
5 Gases under pressure	Not applicable	—	—	—	Classified as "solid" according to GHS definition
6 Flammable liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
7 Flammable solids	Classification not possible	—	—	—	Classification not possible due to lack of data, though classified as flammable according to ICSC (2004)
8 Self-reactive substances and mixtures	Not applicable	—	—	—	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
10 Pyrophoric solids	Not classified	—	—	—	Considered non-pyrophoric when in contact with air at ordinary temperatures since the substance is stable to heat (up to 150degC) (Agricultural Chemical Registration Data)
11 Self-heating substances and mixtures	Not classified	—	—	—	Stable to heat (up to 150degC) (Agricultural Chemical Registration Data)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	—	—	—	Containing no metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At)
13 Oxidizing liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
14 Oxidizing solids	Not applicable	—	—	—	Organic compounds containing no oxygen, fluorine or chlorine
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 with melting point of >55degC are not available (melting point: 86.0-86.1degC (Agricultural Chemical Registration Data)).

### 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	Based on the rat LD50 (oral route) value of 370mg/kg (Agricultural Chemical Registration Data).
1 Acute toxicity (dermal)	Classification not possible	—	—	—	Classification cannot be determined, though the available rat dermal study reported the LC50 value of >1,600mg/kg (Agricultural Chemical Registration Data).
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is a solid according to the GHS criteria and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: dust, mist)	Not classified	—	—	—	Based on the rat LC50 (inhalation route) value of 65mg/L (4 hours) (Agricultural Chemical Registration Data).
2 Skin corrosion / irritation	Not classified	—	—	—	Based on no evidence of irritation observed in rabbit skin irritation tests (Agricultural Chemical Registration Data).
3 Serious eye damage / eye irritation	Not classified	—	—	—	In rabbit eye irritation tests, the treated animals exhibited a mean Draize score of 0.8 at 24 hours, and were fully recovered within 7 days (Agricultural Chemical Registration Data).
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 an allergic skin reaction	Respiratory sensitization: No data available Skin sensitization: Based on positive results in guinea pig skin sensitization tests employing the Maximization method (Agricultural Chemical Registration Data).
5 Germ cell mutagenicity	Not classified	—	—	—	Based on negative data in in vitro assays (chromosome aberration tests, reverse mutation tests and unscheduled DNA synthesis tests) and in vivo assays (mouse dominant lethal tests and unscheduled DNA synthesis tests on rat stem cells) (Agricultural Chemical Registration Data).
6 Carcinogenicity	Not classified	—	—	—	There was no treatment-related increase in tumor incidence observed in carcinogenicity studies in rats, mice and dogs (Agricultural Chemical Registration Data).
7 Toxic to reproduction	Not classified	—	—	—	Based on no evidence of adverse effects on reproduction or offspring development observed in rat 3-generation reproduction studies and rat/rabbit teratogenicity studies (Agricultural Chemical Registration Data).

8	Specific target organs/systemic toxicity following single exposure	Category 2 (nervous system)	Health hazard	Warning	May cause damage to organs (nervous system)	Based on the evidence from animal studies including "ataxia," "hyperexcitability" and "tremors" (Agricultural Chemical Registration Data (year unknown)). These effects were observed at dosing levels within the guidance value ranges for Category 2.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (central nervous system, liver, blood system, testes, prostate, testicular appendage)	Health hazard	Warning	May cause damage to organs through prolonged or repeated exposure (central nervous system, liver, blood system, testes, prostate, testicular appendage)	Based on the human evidence: "The present substance may adversely affect the central nervous system and liver" (ICSC (1994)). Also based on the evidence from animal studies: "ataxia, increased nasal secretion, polyuria, body tremors, and coma were observed. Hematological examinations showed reductions in packed cell volume, hemoglobin, red cells, and plasma protein concentrations in blood," and "seminiferous tubular degeneration was seen" (JMPR (1998)), "changes in the prostate, seminal capsule, Cowper cyst and accessory gland" (RTECS (2006)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 1 (prostate, testicular appendage) and Category 2 (central nervous system, testes and blood system). However, ICSC and RTECS are assigned a priority rating of 2, the effects on the prostate and testes are classified into Category 2.
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 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 96 hours LC50=0.552mg/L of the fish (Carp) (Agricultural Chemical Registration Data, 2003).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Since acute toxicity was Category 1 and there was no rapidly degrading (BIOWIN), and since there was bio-accumulation (log Kow=5.5 (PHYSPROP Database, 2005)), it was classified into Category 1.