

## GHS Classification

**ID532**

**CAS 131-72-6**

### Physical Hazards

**Mixture of 2,4-dinitro-6-octylphenyl crotonate and 2,6-dinitro-4-octylphenyl crotonate (octyl=1-methylheptyl,1-ethylhexyl,1-propyl)**

Date Classified: Oct. 23, 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	Classification not possible	—	—	—	Classification not possible due to lack of data on decomposition energy, though the substance contains nitro groups with its oxygen budget calculated at -184. According to ICSC (2004), Dinocap (mixing ratio of isomers unknown) may decompose when heated above 32degC.
2 Flammable gases	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
3 Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4 Oxidizing gases	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
5 Gases under pressure	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
6 Flammable liquids	Classification not possible	—	—	—	Classification not possible due to lack of data, though Dinocap (mixing ratio of isomers unknown) is classified as flammable by ICSC (2004).
7 Flammable solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
8 Self-reactive substances and mixtures	Classification not possible	—	—	—	Classification not possible due to lack of data, though the substance contains nitro groups with explosive properties. According to ICSC (2004), Dinocap (mixing ratio of isomers unknown) may decompose when heated above 32degC.
9 Pyrophoric liquids	Classification not possible	—	—	—	No data available. Considered non-pyrophoric when in contact with air at ordinary temperatures since the substance is widely used as fungicides, acaricides, etc. for fruits, vines, vegetables and house plants (Dinocap, mixing ratio of isomers unknown (HSDB, 2006)).
10 Pyrophoric solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
11 Self-heating substances and mixtures	Classification not possible	—	—	—	Test methods applicable to liquid substances are not available.
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	Classification not possible	—	—	—	Classification not possible due to lack of data, though being organic compounds containing oxygen bound to the elements other than carbon and hydrogen.
14 Oxidizing solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
15 Organic peroxides	Not applicable	—	—	—	Organic compounds containing no "-O-O-" structure
16 Corrosive to metals	Classification not possible	—	—	—	No data available

### 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 LD50 value of 829mg/kg calculated from the rat LD50 (oral route) of 980mg/kg, 950mg/kg, 1,190mg/kg (HSDB (2006)) and 766mg/kg (RTECS (2006)).
1 Acute toxicity (dermal)	Not classified	—	—	—	Based on the rabbit LD50 (dermal route) value of 9,400mg/kg (RTECS (2006)).
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is "liquid" according to the GHS definition and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: vapour)	Category 1	Skull and crossbones	Danger	Fatal if inhaled	Based on the rat LC50 value of 24ppm (4 hours), calculated from the testing data of rat LC50 (inhalation of vapour) of 0.36mg/L (4 hours) (RTECS (2006)), was lower than the saturated vapour concentration (52,800ppm) under a saturated vapour pressure of 0.00533mPa (25degC) (Howard (1997)), the substance was considered as "vapour containing substantially no mist" and was classified based on standard values expressed in ppm.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	—	—	—	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Based on the description of the human health effects (exposure duration unknown) (HSDB (2006)): "They are only moderately irritating to the skin and mucous membranes."
3 Serious eye damage / eye irritation	Classification not possible	—	—	—	No data available
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 the description of the human health effects (HSDB (2006) and ICSC (J) (1997)): "Skin sensitization: positive."
5 Germ cell mutagenicity	Not classified	—	—	—	Based on the absence of data on multi-generation mutagenicity tests and germ cell mutagenicity tests in vivo, and negative data on somatic cell mutagenicity tests in vivo (chromosome aberration tests), described in JMPR (1989) and JMPR (1998).
6 Carcinogenicity	Classification not possible	—	—	—	Classification not possible based on expert judgment in the absence of existing classification, though some toxicity data are available.
7 Toxic to reproduction	Category 1B	Health hazard	Danger	May damage fertility or the unborn child	Based on the evidence of increased pup mortality and fetal malformation (cleft palate, abnormal inner ear) at non-parentally toxic doses in mouse teratogenicity studies, described in JMPR (1989).
8 Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	Insufficient data available

9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (liver) Category 2 (kidneys)	Health hazard	Danger	Causes damage to organs through prolonged or repeated exposure (liver) May cause damage to organs through prolonged or repeated exposure	Based on the evidence from animal studies: "necrosis was found in the liver" (JMPR (1998)), "histological changes were noted in the liver and kidneys" (HSDB (2006)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Categories 1 and 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)	Classification not possible	—	—	—	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	—	—	—	No data available

/lpentyl); Dinocap; DPC