

GHS Classification

ID410

Dichloropentafluoropropane; HCFC-225

CAS

Date Classified: Nov. 20, 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	—	—	—	Containing no chemical groups with explosive properties
2 Flammable gases	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (3,3-dichloro-1,1,1,2,2-pentafluoropropane, 1,3-dichloro-1,1,2,2,3-pentafluoropropane)
3 Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4 Oxidizing gases	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (3,3-dichloro-1,1,1,2,2-pentafluoropropane, 1,3-dichloro-1,1,2,2,3-pentafluoropropane)
5 Gases under pressure	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (3,3-dichloro-1,1,1,2,2-pentafluoropropane, 1,3-dichloro-1,1,2,2,3-pentafluoropropane)
6 Flammable liquids	Not classified	—	—	—	Non-flammable (PRTR Chemicals DB (2001))
7 Flammable solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (3,3-dichloro-1,1,1,2,2-pentafluoropropane, 1,3-dichloro-1,1,2,2,3-pentafluoropropane)
8 Self-reactive substances and mixtures	Not applicable	—	—	—	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Not classified	—	—	—	Non-flammable (PRTR Chemicals DB (2001)).
10 Pyrophoric solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (3,3-dichloro-1,1,1,2,2-pentafluoropropane, 1,3-dichloro-1,1,2,2,3-pentafluoropropane)
11 Self-heating substances and mixtures	Not classified	—	—	—	Non-flammable (PRTR Chemicals DB (2001)).
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	—	—	—	Organic compounds containing fluorine and chlorine (but not oxygen), with the fluorine and chlorine bound to carbon and hydrogen (but not to other elements)
14 Oxidizing solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (3,3-dichloro-1,1,1,2,2-pentafluoropropane, 1,3-dichloro-1,1,2,2,3-pentafluoropropane)
15 Organic peroxides	Not applicable	—	—	—	Organic compounds containing no "O-O" structure
16 Corrosive to metals	Classification not possible	—	—	—	Test methods applicable to gaseous substances are not available (boiling point: 51.1degC (3,3-dichloro-1,1,1,2,2-pentafluoropropane, HSDB (2006), test temperature: 55degC). As for the isomers with boiling point of >55degC, classification is not possible due to lack of data.

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Not classified	—	—	—	Based on the rat LD50 (oral route) value of >5,000mg/kg (RTECS (2006)) (1,3-dichloro-1,1,2,2,3-pentafluoropropane, and 3,3-dichloro-1,1,1,2,2-pentafluoropropane)
1 Acute toxicity (dermal)	Classification not possible	—	—	—	Based on the available rat LD50 (dermal route) of >2,000mg/kg (RTECS (2006)), the substance can be "Not classified" or classified as Category 5. However, there are insufficient data available to serve as a basis for classification into Category 5. (1,3-dichloro-1,1,2,2,3-pentafluoropropane, and 3,3-dichloro-1,1,1,2,2-pentafluoropropane)
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is a liquid according to the GHS definition and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: vapour)	Category 5	—	Warning	May be harmful if inhaled	Based on the rat LC50 (inhalation of vapour) value of 262.78mg/L (4 hours) (RTECS (2006)) was lower than 90% of the saturated vapour concentration (377,000ppm) under a saturated vapour pressure of 286mmHg (25degC) [equivalent to 38.1kPa (25degC)] (HSDB (2006)), the substance was considered as "vapour" and was classified into Category 5. (1,3-dichloro-1,1,2,2,3-pentafluoropropane) Based on the rat LC50 (inhalation of vapour) value of 309.6mg/L (4 hours) (RTECS (2006)) was lower than 90% of the saturated vapour concentration (317,000ppm) under a saturated vapour pressure of 240mmHg (25degC) [equivalent to 32.0kPa (25degC)] (HSDB (2006)), the substance was considered as "vapour" and was classified into Category 5. (3,3-dichloro-1,1,1,2,2-pentafluoropropane)
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) —	Respiratory sensitization: No data available 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 3 (narcotic effects, respiratory tract irritation)	Exclamation mark	Warning	(Respiratory tract irritation) May cause respiratory irritation (Narcotic effects) May cause drowsiness or dizziness	Based on the evidence from animal studies including "somnolency," and "structural or functional changes in the trachea or bronchi" (RTECS (2006)).
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)	Classification not possible	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available