PERFLUOROOCTANOIC ACID

1613
October 2005

CAS No: 335-67-1
RTECS No: RH0781000
UN No: 3261

Pentadecafluorooctanoic acid
Pentadecafluoro-n-octanoic acid
Perfluorocaprylic acid
$C_8HF_{15}O_2$
Molecular mass: 414.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		**PREVENT DISPERSION OF DUST!**	
Inhalation	Cough. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Redness. Pain.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
Eyes	Redness. Pain. Blurred vision.	Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING	
Personal protection: P2 filter respirator for harmful particles. Do NOT let this chemical enter the environment. Sweep spilled substance into covered, non-metallic containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.	UN Hazard Class: 8 UN Pack Group: III	Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-80GC4-II+III	Separated from strong oxidants, strong bases, strong acids, strong reducing agents, food and feedstuffs.

IPCS
International Programme on Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission

IMPORTANT DATA

Physical State; Appearance
WHITE POWDER, WITH PUNGENT ODOUR.

Chemical dangers
The substance decomposes on heating above 300/C or on burning producing toxic gases including hydrogen fluoride. The solution in water is a weak acid. Reacts with bases, oxidants and reducing agents. Attacks many metals forming flammable/explosive gas (hydrogen - see ICSC 0001).

Occupational exposure limits
TLV not established.
MAK: 0.005 mg/m^3; skin absorption (H); Peak limitation category: II(8); Carcinogen category: 4; Pregnancy risk group: C; (DFG 2005).

Routes of exposure
The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

Inhalation risk
A harmful concentration of airborne particles can be reached quickly when dispersed.

Effects of short-term exposure
The substance is irritating to the eyes, the skin and the respiratory tract.

Effects of long-term or repeated exposure
Tumours have been detected in experimental animals but may not be relevant to humans.

PHYSICAL PROPERTIES

Boiling point: 189/C
Melting point: 52-54/C
Density: 1.79 g/cm^3

Solubility in water: none
Octanol/water partition coefficient as log Pow: 6.3

ENVIRONMENTAL DATA

The substance may cause long-term effects in the aquatic environment.

NOTES

Common name: PFOA.

ADDITIONAL INFORMATION