

# HEXAFLUOROACETONE

1057  
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CAS No: 684-16-2  
RTECS No: UC2450000  
UN No: 2420

1,1,1,3,3,3-Hexafluoro-2-propanone  
Perfluoroacetone  
C<sub>3</sub>F<sub>6</sub>O / CF<sub>3</sub>COCF<sub>3</sub>  
Molecular mass: 166.0

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>			In case of fire: keep cylinder cool by spraying with water.

EXPOSURE		STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
<b>Inhalation</b>	Cough. Sore throat. Burning sensation. Laboured breathing. Shortness of breath. Symptoms may be delayed (see Notes).	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration if indicated. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! Redness. Pain. ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention. ON FROSTBITE: rinse with plenty of water, do NOT remove clothes.
<b>Eyes</b>	Redness. Pain.	Safety spectacles, face shield, 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.
<b>Ingestion</b>			

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert in case of a large spill! Ventilation. Remove gas with fine water spray. (Extra personal protection: complete protective clothing including self-contained breathing apparatus).	UN Hazard Class: 2.3 UN Subsidiary Risks: 8

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-20G42	Fireproof if in building. Cool.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS GAS, WITH CHARACTERISTIC ODOUR.

**Physical dangers**

The gas is heavier than air.

**Chemical dangers**

The substance decomposes on heating at 550°C producing toxic and corrosive fumes.

Reacts vigorously with water and moisture to form a highly acidic hydrates. Attacks glass and most metals.

**Occupational exposure limits**

TLV: 0.1 ppm; 0.68 mg/m<sup>3</sup> (skin) (ACGIH 2000). MAK not established.

**Routes of exposure**

The substance can be absorbed into the body by inhalation and through the skin.

**Inhalation risk**

A harmful concentration of this gas in the air will be reached very quickly on loss of containment.

**Effects of short-term exposure**

The substance is severely irritating to the eyes, the skin and the respiratory tract. Inhalation of this gas may cause lung oedema (see Notes). Rapid evaporation of the liquid may cause frostbite. The effects may be delayed. Medical observation is indicated.

**Effects of long-term or repeated exposure**

Animal tests show that this substance possibly causes malformations in human babies. Animal tests show that this substance possibly causes toxic effects upon human reproduction.

### PHYSICAL PROPERTIES

Boiling point: -28°C

Melting point: -129°C

Relative density: 1.33 g/ml at 25°C (liquid)

Solubility in water: reaction, releasing heat

Relative vapour density (air = 1): 5.7

Octanol/water partition coefficient as log Pow: 1.46

### ENVIRONMENTAL DATA

### NOTES

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential.

Immediate administration of an appropriate spray, by a doctor or a person authorized by him/her, should be considered.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

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