

POTASSIUM HEXAFLUOROSILICATE

1242

October 1994

CAS No: 16871-90-2
 RTECS No: VV8400000
 UN No: 2655
 EC No: 009-012-00-0

Potassium fluorosilicate
 Potassium silicofluoride
 Dipotassium hexafluorosilicate
 K_2SiF_6
 Molecular mass: 220.3

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	Burning sensation. Cough. Sore throat. See Ingestion.	Avoid inhalation of fine dust and mist. Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Redness. Pain.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Safety goggles or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal cramps. Burning sensation. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Do NOT wash away into sewer. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Personal protection: P3 filter respirator for toxic particles.	T Symbol R: 23/24/25 S: (1/2-)26-45 Note: A UN Hazard Class: 6.1 UN Pack Group: III Do not transport with food and feedstuffs. Marine pollutant.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT5-III	Separated from acids, food and feedstuffs.

IMPORTANT DATA

Physical State; Appearance

WHITE CRYSTALS OR FINE POWDER.

Chemical dangers

The substance decomposes on heating producing toxic and corrosive fumes including fluorine. Reacts with concentrated acids to produce corrosive hydrogen fluoride (see ICSC0283).

Occupational exposure limits

TLV: (as F) 2.5 mg/m³ as TWA; A4 (not classifiable as a human carcinogen); BEI issued; (ACGIH 2004).
MAK: (as F) (Inhalable fraction) 1 mg/m³; Peak limitation category: I(4); skin absorption (H); 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

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

Effects of short-term exposure

The substance is irritating to the eyes, the skin and the respiratory tract. The substance may cause effects on the calcium metabolism, resulting in cardiac disorders and impaired functions. Medical observation is indicated.

Effects of long-term or repeated exposure

The substance may have effects on the bone, resulting in fluorosis.

PHYSICAL PROPERTIES

Melting point (decomposes): see Notes
Relative density (water = 1): 2.3

Solubility in water: none

ENVIRONMENTAL DATA

NOTES

Temperature of decomposition unknown in literature.
Card has been partly updated in April and October 2005. See sections Occupational Exposure Limits, Emergency Response.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information