

# **UN/SCETDG/45/INF.15/Ref.8**

---

## **Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals**

**Sub-Committee of Experts on the Transport of Dangerous Goods**

**4 June 2014**

**Forty-fifth session**

Geneva, 23 June – 2 July 2014

## **International Chemical Safety Cards**

**Transmitted by the World Nuclear Transport Institute (WNTI)**

# International Chemical Safety Cards

## URANIUM HEXAFLUORIDE

ICSC: 1250



Uranium fluoride  
 $UF_6$   
 Molecular mass: 352.0

ICSC # 1250  
 CAS # 7783-81-5  
 RTECS # [YR4720000](#)  
 UN # 2978  
 EC # 092-002-00-3  
 March 16, 1995 Validated



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: powder, carbon dioxide . NO water .
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
<b>•INHALATION</b>	Corrosive. Burning sensation. Cough. Shortness of breath.	Avoid inhalation of fine dust and mist. Closed system and ventilation.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
<b>•SKIN</b>	Corrosive. Skin burns. Pain.	Protective gloves. Protective clothing.	First rinse with plenty of water, then remove contaminated clothes and rinse again. Refer for medical attention. Wear protective gloves when administering first aid.
<b>•EYES</b>	Corrosive. Pain. Severe deep burns.	Face shield 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.
<b>•INGESTION</b>	Corrosive. Abdominal cramps. Burning sensation. Shock or collapse.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Sweep spilled substance into sealable containers, then remove to safe place. Personal protection: complete protective clothing including self-contained breathing apparatus.	Separated from aromatic compounds, ethanol, food and feedstuffs . Dry. Well closed. Keep in a well-ventilated room.	Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Note: A T+ symbol N symbol R: 26/28-33-51/53 S: 1/2-20/21-45-61 UN Hazard Class: 7 UN Subsidiary Risks: 8
<b>SEE IMPORTANT INFORMATION ON BACK</b>		
<b>ICSC: 1250</b>	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.	

# International Chemical Safety Cards

## URANIUM HEXAFLUORIDE

**ICSC: 1250**

<b>I M P O R T A N T D A T A</b>	<p><b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS TO WHITE DELIQUESCENT CRYSTALS.</p> <p><b>PHYSICAL DANGERS:</b></p> <p><b>CHEMICAL DANGERS:</b> The substance decomposes on heating producing toxic fumes of hydrogen fluoride (see ICSC 0283). Reacts with aromatic compounds, such as benzene, toluene and xylene. Reacts violently with water and ethanol. Attacks many metals forming flammable/explosive gas (hydrogen - see ICSC 0001). Attacks plastic, rubber and coatings.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS:</b> TLV: (as U) 0.2 mg/m<sup>3</sup> as TWA; 0.6 mg/m<sup>3</sup> as STEL; A1 (confirmed human carcinogen); (ACGIH 2004).</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation and by ingestion.</p> <p><b>INHALATION RISK:</b> A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20°C.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> Corrosive. The substance is corrosive to the eyes, the skin and the respiratory tract. The substance may cause effects on the kidneys , resulting in kidney impairment and tissue lesions. Exposure at low level may result in death.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b></p>
<b>PHYSICAL PROPERTIES</b>	<p>Boiling point: 56°C Relative density (water = 1): 5.09 Solubility in water, g/100 ml at 20°C: reaction</p> <p style="text-align: right;">Vapour pressure, kPa at 20°C: 14.2</p>	

<b>ENVIRONMENTAL DATA</b>	
-------------------------------	--

<b>NOTES</b>
--------------

Do NOT take working clothes home. Shipping name: UN 2978: Uranium hexafluoride (low specific activity); UN 2977: Uranium hexafluoride, fissile (containing more than 1% (235) uranium). Card has been partly updated in April 2005. See sections Occupational Exposure Limits, Emergency Response.

Transport Emergency Card: TEC (R)-70Gd

<b>ADDITIONAL INFORMATION</b>
-------------------------------

<b>ICSC: 1250</b>	
-------------------	--

<b>URANIUM HEXAFLUORIDE</b>
-----------------------------

(C) IPCS, CEC, 1994

<b>IMPORTANT LEGAL NOTICE:</b>	
--------------------------------	--

Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.