

FLUOROMETHYL 2H-HEXAFLUOROPROP-2-YL ETHER

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Compilation date: 09/11/2007

Revision date: 04/12/2017

Revision No: 3

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name:	FLUOROMETHYL 2H-HEXAFLUOROPROP-2-YL ETHER
CAS number:	28523-86-6
Product code:	PC4681
Synonyms:	1,1,1,3,3,3-HEXAFLUORO-2-(FLUOROMETHOXY)PROPANE
	FLUOROMETHYL 1,1,1,3,3,3-HEXAFLUOROISOPROPYL ETHER
	SEVOFLURANE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: RESEARCH USE ONLY

1.3. Details of the supplier of the safety data sheet

Company name:	Apollo Scientific Ltd
	Units 3 & 4
	Parkway
	Denton
	Manchester
	M34 3SG
	UK
Tel:	0161 337 9971
Fax:	0161 336 6932
Email:	david.tideswell@apolloscientific.co.uk

1.4. Emergency telephone number

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: STOT SE 3: H335; Eye Irrit. 2: H319; Skin Irrit. 2: H315

Most important adverse effects: Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

2.2. Label elements

Label elements:

Hazard statements: H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Signal words: Warning

Hazard pictograms: GHS07: Exclamation mark

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 Precautionary statements:
 P261: Avoid breathing vapours.

 P271: Use only outdoors or in a well-ventilated area.

 P280: Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: FLUOROMETHYL 2H-HEXAFLUOROPROP-2-YL ETHER

CAS number: 28523-86-6

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

4.3. Indication of any immediate medical attention and special treatment needed

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Carbon dioxide, dry chemical powder, foam. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Hydrogen fluoride (HF).

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5.3. Advice for fire-fighters Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Section 6: Accidental release measures 6.1. Personal precautions, protective equipment and emergency procedures Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. 6.2. Environmental precautions Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding. 6.3. Methods and material for containment and cleaning up Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. 6.4. Reference to other sections Section 7: Handling and storage 7.1. Precautions for safe handling Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Only use in fume hood. 7.2. Conditions for safe storage, including any incompatibilities Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

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Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State:	Liquid		
Colour:	Colourless		
Evaporation rate:	No data available.		
Oxidising:	No data available.		
Solubility in water:	Not miscible		
Viscosity:	No data available.		
Boiling point/range ℃:	58	Melting point/range °C:	No data available.
Flammability limits %: lower:	No data available.	upper:	No data available.
Flash point ℃:	No data available.	Part.coeff. n-octanol/water:	No data available.
Autoflammability °C:	No data available.	Vapour pressure:	No data available.
Relative density:	1.505	pH:	No data available.
VOC g/l:	No data available.		

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Hydrogen fluoride

(HF).

Section 11: Toxicological information

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11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	10,800	mg/kg

Hazardous ingredients:

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ORAL RAT LD50	10,800	mg/kg
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Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-single exposure	INH	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: No data available.

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13.1. Waste treatment methods	
Disposal operations:	Transfer to a suitable container and arrange for collection by specialised disposal
	company. MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL,
	STATE AND FEDERAL REGULATIONS
Disposal of packaging:	Dispose of as special waste in compliance with local and national regulations Observe
	all federal, state and local environmental regulations.
NB:	The user's attention is drawn to the possible existence of regional or national
	regulations regarding disposal.
Section 14: Transport information	lion
Transport class:	This product does not require a classification for transport.
Section 15: Regulatory information	ation
15.1. Safety, health and enviror	nmental regulations/legislation specific for the substance or mixture
Specific regulations:	Not applicable
15.2. Chemical Safety Assessn	
Chemical safety assessment	A chemical safety assessment has not been carried out for the substance or the mixture
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cannot guarantee that the hazards detailed in this document are the only hazards that exist for this product. This is not a warranty and Apollo Scientific Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.