

SAFETY DATA SHEET

Pico-Break™ 1 in 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material. This information should be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006, and described in CLP Regulation (EC) No 1272/2008. However, the product is not classified as hazardous and contains no hazardous ingredients and this SDS is considered to be non-mandated and is provided for information only.

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

1.1 Product identifier

Pico-Break in 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol

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

Laboratory chemical

1.3 Details of the supplier of the safety data sheet

Sphere Fluidics Limited
The Jonas Webb Building
Babraham Research Campus, Babraham
Cambridge CB22 3AT
support@spherefluidics.com

1.4 Emergency telephone number

In case of emergency 01223 804200 (Mon - Fri 8am to 5pm)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) no. 1272/2008 [CLP/GHS]



WARNING

2.2 Label elements

H302 Harmful if swallowed.

H373 May cause damage to organs (liver, teeth) through prolonged or repeated exposure through ingestion.

P264 Wash hands thoroughly after use

P302 + P352 IF ON SKIN: Wash with plenty of soap and water

P309 + P312 IF exposed or you feel unwell Call a POISON CENTER or doctor/physician if you feel unwell.

P333 + P313 If skin irritation or rash occurs, get medical attention

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Issue Date :06th Jul 2016
Supersedes: Version 2**2.3 Other hazards**

No known hazards. However, the product must be used in accordance with instructions for use.

SECTION 3: Composition**3.1 Substances**

Not applicable – product is a mixture.

3.2 Mixtures

Ingredient	EC	%	Classification
Orange dye		< 0.1	
3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol	211-477-1	To 100	Acute Tox 4 H302 STOT RE 2 H373

SECTION 4: First Aid Measures**4.1 Description of first aid measures**

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Seek medical attention if irritation arises.

INHALATION: Solvent is non-volatile liquid, and of low viscosity. Solvent not classified Aspiration Toxic. If spray is inhaled, seek medical advice if any discomfort.

SKIN CONTACT: Wash with soap and water. If irritation or rash develops, seek medical attention.

INGESTION: If swallowed, DO NOT INDUCE VOMITING. May enter airways. Rinse mouth with water and drink cup of water. If continued discomfort, seek medical attention

4.2 Most important symptoms and effects, both acute and delayed

INGESTION: No obvious symptoms from single administration

INHALATION: No known symptoms

EYES: Discomfort if first aid not administered

SKIN: Mild discomfort and possible reaction such as itching or redness

4.3 Indication of any immediate medical attention and special treatments needed

Dilute affected areas. No special medical treatment needed.

SECTION 5: Firefighting Measures**5.1 Extinguishing media**

Product will not support combustion

Carbon dioxide, water spray, foam, dry chemical for small fires, foam or water spray for large fires (> 10 litres)

5.2 Special hazards arising from the substance or mixture

None

5.3 Advice for fire fighters

No special precautions.

SECTION 6: Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

For spillage of bulk material or quantities > 1 litre, gloves resistant to fluorinated solvents and eye protection recommended. Avoid skin contact.

6.2 Environmental precautions

No special precautions. Avoid release to surface water.

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SMALL SPILLS (under 1 litre): Use absorbent material and place in a suitable container for disposal. Wash area with water and detergent.

LARGE SPILLS: (more than 1 litre): Use appropriate containment to avoid contamination of surrounding area.

6.4 References to other sections

See section 8 for further advice on protective equipment and section 13 for further advice on disposal.

SECTION 7: Handling and Storage**7.1 Precautions for safe handling**

Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed when not in use. For professional use only.

7.3 Specific end uses(s)

Use only as directed as a laboratory chemical

SECTION 8. Exposure Controls/Personal Protection**8.1 Control parameters****Occupational Exposure limit values**

No exposure limits

8.2 Exposure controls**Engineering controls**

Normal room ventilation is adequate.

Respiratory protection

Not required for normal handling.

Hand Protection

In case of prolonged or repeated contact, wear gloves suitable for fluorinated solvents. Change gloves in accordance with manufacturer's recommendations.

Eye protection

Eye protection recommended

Skin protection

For handling, laboratory coats recommended.

General Hygiene Considerations

Wash hands after handling. Launder contaminated clothing before reuse.

Environmental exposure controls

Precautions should be taken to avoid accidental release of material to water courses.

SECTION 9: Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

Appearance:	Orange liquid
Odour:	No discernible odour
Odour threshold:	no data
pH:	Neutral (not applicable due to low solubility in water)
Melting point:	Liquid at 0°C

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Boiling point:	> 100°C
Flashpoint:	Considered non-flammable and will not support combustion
Evaporation rate:	No data
Flammability (solid, gas):	Considered non-flammable and will not support combustion
Upper/lower flammability limits:	No data
Vapour pressure:	No data. Not considered volatile
Vapour density	No data
Relative density	Estimated 1.5 based on starting materials
Solubility in water:	Not soluble in water.
Solubility in other solvents:	Only soluble in fluorinate solvents
Partition coefficient (log Kow)	Solvent Log Kow > 4
Autoignition temperature	No data
Decomposition temperature	> 100°C
Viscosity	Solvent of low viscosity and may enter lungs if swallowed
Explosive properties	Not classified as explosive
Oxidising properties	Not classified as oxidising; contains low level of oxidising agent

9.2 Other information

None

SECTION 10: Stability and Reactivity**10.1 Reactivity**

Functionally inert.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

No special precautions.

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

None known.

SECTION 11: Toxicological Information**11.1 Information on toxicological effects**

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

(a) acute toxicity	Based on the solvent, estimated to be harmful if swallowed with ATE considered to be 1750 mg/kg
(b) skin corrosion/irritation	Estimated to be slightly irritant to skin, but not classified.
(c) serious eye damage/irritation	Estimated to be slightly irritant to eyes, but not classified.
(d) respiratory/skin sensitisation	Not considered to be a potential skin sensitiser
(e) germ cell mutagenicity	This chemical class is not known to be mutagenic.
(f) carcinogenicity	This chemical class is not known a carcinogen by IARC or U.S. ACGIH, NTP or OSHA.
(g) reproductive toxicity	This chemical class is not known to be toxic for reproduction
(h) STOT-single exposure	This chemical class is not considered hazardous to organs from single exposure

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- (i) **STOT-repeated exposure** The solvent is considered STOT SE2 based on effects to the liver and other haematological changes following repeated oral exposure .
- (j) **aspiration hazard** The solvent is of low viscosity, but not classified by supplier as Aspiration Toxic

SECTION 12: Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1 Toxicity

This chemical class is not known to be toxic to aquatic organisms. The extremely low water solubility and high molecular weight will make exposure to aquatic organisms unlikely.

12.2 Persistence and degradability

Not considered to be biodegradable. Will persist.

12.3 Bioaccumulative potential

Not considered to be potentially bioaccumulative due to high molecular weight.

12.4 Mobility in soil

The product will not be mobile in the environment due to high molecular weight and low water solubility.

12.5 Results of PBT and vPvB assessment

The product is predicted to be persistent. It is not predicted to be bioaccumulate or toxic.

12.6 Other adverse effects

None known

SECTION 13: Disposal Considerations**13.1 Waste treatment methods**

Recover and recycle product if possible. If recovery and recycling are not possible disposal to waste water treatment may be possible if in accordance with local regulations.

SECTION 14: Transport Information

Not classified as dangerous goods, no labelling for transport is required

	ADR	IMDG	ICAO
14.1 UN Number	Not applicable	Not applicable	Not applicable
14.2 UN Proper shipping name	Not applicable	Not applicable	Not applicable
14.3 Transport hazard class(es)	Not applicable	Not applicable	Not applicable
14.4 Packing group	Not applicable	Not applicable	Not applicable
14.5 Environmental hazards	Not applicable	Not applicable	Not applicable
14.6 Special precautions for user	Not applicable	Not applicable	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable	Not applicable	Not applicable

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No specific legislation

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Chemical safety assessment has been performed on some of the components and no concerns noted in respect to the intended use of this product.

SECTION 16: Other Information**Revision information:**

This is a new SDS

List of Abbreviations used in this SDS:

ATE Acute Toxicity Estimate
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
DSD Dangerous Substances Directive 67/548/EEC
DPD Dangerous Preparations Directive 1999/45/EC
EC European Commission
PBT Persistent, Bioaccumulative and Toxic
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
STOT Specific target organ toxicity
vPvB very Persistent, very Bioaccumulative

ReferencesSource: European Chemicals Agency, <http://echa.europa.eu/>**Method used for classification:**

Consideration of starting reagents

H and P Statements used in Section 2 and/or 3

H302 Harmful if swallowed.

H373 May cause damage to organs (liver, teeth) through prolonged or repeated exposure through ingestion

Training requirements for workers

No special training requirements. For professional use only