

SAFETY DATA SHEET

Pico-Wave™ 40

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-Wave™ 40, <0.1% in Fluorinert™ FC-40

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

Building One,
Granta Park,
Granta Centre,
Cambridge
CB21 6AL
Support@spherefluidics.com

1.4 Emergency telephone number

In case of emergency 01223 942015 (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]

Not classified

2.2 Label elements

H413: May cause long lasting harmful effects to aquatic life

P264 Wash hands thoroughly after use

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

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

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
Polyfluorinated surfactant	Polymer	<0.1%	Not classified
Fluorinert™ FC-40	86508-42-1 (CAS)	>99.9%	Aquatic Chronic 4

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. Rinse mouth out with water and seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

INGESTION: No known symptoms

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 affects 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.

6.3 Methods and materials for containment and clearing up

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: Pale liquid

Odour: No discernible odour

PICO-WAVE™ 40, <0.1% IN FLUORINERT™ FC-40

Version: 5
Issue Date : 24th January 2024
Supersedes: 22nd May 2023

Odour threshold:	no data
pH:	Neutral (not applicable due to low solubility in water)
Melting point:	Liquid at 0°C
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 1.8 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	Estimated to be of low acute toxicity. Not classified.
(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. Product not tested.
(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
(i) STOT-repeated exposure	This chemical class is not considered hazardous to organs.
(j) aspiration hazard	The solvents are 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	Not applicable	Not applicable	Not applicable

MARPOL 73/78 and the IBC Code			
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SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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:

Rebranding Changes, and updated contact information.

List of Abbreviations used in this SDS:

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
vPvB	very Persistent, very Bioaccumulative

References

Source: European Chemicals Agency, <http://echa.europa.eu/>

Method used for classification:

Consideration of starting reagents

R Phrases and H Statements used in Section 2 and/or 3

Training requirements for workers

No special training requirements. For professional use only