

SAFETY DATA SHEET

Safety Data Sheet according to (EC) No. 1907/2006.

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

1.1. Product identifier:

dPCR oil

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

Liquid for research and analysis. Restricted to professional users.

1.3. Details of the supplier of the safety data sheet:

Samplix ApS Phone: (+45) - 28 30 95 07

Bregnerødvej 96

DK-3460 Birkerød

Denmark

Responsible person for the safety data sheet (e-mail): rsh@samplix.com**1.4. Emergency telephone number:**

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

Environmentally hazardous liquid.

CLP (1272/2008): Aquatic Chronic 4;H413

2.2. Label elements:

H413: May cause long lasting harmful effects to aquatic life.

P273: Avoid release to the environment.

2.3. Other hazards: None known.

PBT/vPvB: 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)-hexane is under consideration as PBT/vPvB.

Endocrine disrupting properties: The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100 or Regulation 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures:

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification
>80	3-ethoxy-1,1,1,2,3,- 4,4,5,5,6,6,6-dodeca- fluoro-2-(trifluoro- methyl)-hexane	297730-93-9	435-790-1	603-224-00-2	01-0000018188-64	Aquatic Chronic 4;H413

Wording of hazard statements - see section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures:

Inhalation: Move the affected person to fresh air. Keep at rest. If needed: Get medical attention.

Skin contact: Remove contaminated clothing and wash skin with water and mild soap. If irritation persists: Seek medical advice.

Eye contact: Immediately flush with water or physiological salt water for at least 5 minutes, holding eyelids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.

Ingestion: Rinse mouth and drink plenty of water. In case of discomfort: Seek medical advice.

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

May cause slight irritation of eyes, skin, lungs and gastrointestinal tract.

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

Show this safety data sheet to a physician or emergency ward.

SECTION 5: Firefighting measures

5.1. Extinguishing media:

Not flammable.

5.2. Special hazards arising from the substance or mixture:

Not relevant (the product is not combustible).

5.3. Advice for firefighters:

Do not inhale smoke fumes. When extinguishing surrounding fires use breathing apparatus with an independent source of air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment - see section 8.

6.2. Environmental precautions:

Do not empty into drains – see section 12. Inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up:

Wipe up spilled liquid and place in a suitable container for disposal. Clean with water. Further handling of spillage - see section 13.

6.4. Reference to other sections:

See references above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Wash with plenty of water and soap after end use.

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed original container in a well-ventilated area.

7.3. Specific end use(s):

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters:

Occupational exposure limits: None

DNEL:	Exposure	Value	Population	Effects
CAS: 297730-93-9	Long term - inhalation	1135 mg/m ³	Workers	Systemic
	Long term - skin	3.3 mg/kg/d	Workers	Systemic
	Long term - inhalation	282 mg/m ³	Consumer	Systemic
	Long term - skin	1.7 mg/kg/d	Consumer	Systemic
	Long term - ingestion	1.7 mg/kg/d	Consumer	Systemic
PNEC:	Medium	Value		
CAS: 297730-93-9	Fresh water	0.008 mg/l		
	Sea water	0.001 mg/l		
	Sewage treatment plant (STP)	1 mg/l		
	Fresh water sediment	0.006 mg/kg		
	Sea water sediment	0.001 mg/kg		
	Soil	0.01 mg/kg		

8.2. Exposure controls:

Appropriate engineering controls: Ensure adequate ventilation.

Personal protective equipment:

Inhalation: Normally not necessary.

Skin: Wear protective gloves of e.g. nitrile or butyl (EN374). Breakthrough time, approx. 3 hours.

Eyes: Wear tight fitting safety goggles (EN166) when there is a risk of splashes.

Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Physical state:	Liquid
Colour:	Colourless
Odour:	No odour
Melting point/freezing point (°C):	~ 100
Boiling point or initial boiling point and boiling range (°C):	~ 129
Flammability (solid, gas):	Not relevant
Lower and upper explosion limit (vol-%):	Not relevant
Flash point (°C):	No flash
Auto-ignition temperature (°C):	330
Decomposition temperature (°C):	Not relevant
pH:	Neutral
Viscosity (cSt, 25°C):	0.8
Solubility:	Low solubility in water (<0.004 ppm)
Partition coefficient n-octanol/water (log value):	~ 6
Vapour pressure (Pa, 20°C)	847
Density and/or relative density:	~ 1.6
Relative vapour density:	~ 14.3 (air=1)
Particle characteristics:	Not determined
9.2. Other information:	None relevant.

SECTION 10: Stability and reactivity

10.1. Reactivity:

No available data.

10.2. Chemical stability:

Stable under the recommended storage conditions - see section 7.

10.3. Possibility of hazardous reactions:

None known.

10.4. Conditions to avoid:

None known.

10.5. Incompatible materials:

Strong alkalines.

10.6. Hazardous decomposition products:

When heated to high temperatures (decomposition) toxic gasses are formed such as oxides of carbon and hydrogen fluoride.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

The mixture contains no hazardous substances in significant quantities.

Information on likely routes of exposure: inhalation, skin and ingestion.

Symptoms:

Inhalation: Vapours may cause irritation to the airways.

Skin: May cause irritation by prolonged contact with skin.

Eyes: May cause eye irritation.

Ingestion: May cause irritation of the gastrointestinal tract, nausea, vomiting and headache.

Chronic effects: None known.

11.2. Information on other hazards:

None known

SECTION 12: Ecological information

12.1. Toxicity:

Aquatic	Data	Test (Media)	Data source
Fish	LC ₅₀ (Oryzias latipus, 96h): >10 mg/l (CAS: 297730-93-9)	JIS K 0102-1998-71	ECHA
	LC ₅₀ (Pimephales promelas, 96h): 4149 mg/l (PFBA photolysis product)	OECD 203 (FW)	ECHA
Daphnia	EC ₅₀ (Daphnia magna, 48h) = 3475 mg/l (CAS: 297730-93-9)	No information (FW)	ECHA
	EC ₅₀ (Hyalella azteca, 48h) = 971 mg/l (PFBA photolyseprodukt)	OECD 202 (FW)	ECHA
Algae	EC ₅₀ (Chlorella vulgaris, 72h): > 987 mg/l (PFBA photolysis product)	OECD 201 (FW)	ECHA

12.2. Persistence and degradability:

CAS: 297730-93-9 is not rapidly biodegradable (OECD 301D, 28 d., 1% degradation).

12.3. Bioaccumulative potential:

CAS: 297730-93-9: logK_{ow} = 6 – high bioaccumulative potential.

12.4. Mobility in soil:

CAS: 297730-93-9: Is expected to adsorb to soil particles and have relatively low mobility in soil.

12.5. Results of PBT and vPvB assessment:

3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)-hexane (CAS:297730-93-9) is under assessment as PBT/vPvB.

12.6. Endocrine disrupting properties:

None known.

12.7. Other adverse effects:

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

The mixture is to be considered as hazardous waste. Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

EWG-code: 16 05 08 (mixture itself); 15 02 02 (paper towel, inert material etc. contaminated with the mixture)

SECTION 14: Transport information

Not dangerous goods (ADR/RID/IMDG/IATA).

14.1. UN number or ID number: None.

14.2. UN proper shipping name: None.

14.3. Transport hazard class(es): None.

14.4. Packing group: None.

14.5. Environmental hazards: No.

14.6. Special precautions for user: None.

14.7. Maritime transport in bulk according to IMO instruments: Not relevant.

SECTION 15: Regulatory information

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

None

15.2. Chemical safety assessment:

No CSR.

SECTION 16: Other information

Hazard statements mentioned in section 2 and 3:

H413: May cause long lasting harmful effects to aquatic life.

Abbreviations:

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC₅₀ = Effect Concentration 50%

FW = Fresh Water

LC₅₀ = Lethal Concentration 50%

LD₅₀ = Lethal Dose 50%

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

Literature:

ECHA = European Chemicals Agency

EPA Ecotox = The US Environmental Protection Agency's database on ecotoxicological effects for chemicals.

IUCLID = International Uniform Chemical Information Database.

RTECS = Register of Toxic Effects of Chemical Substances

Training advice:

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

Other information:

Prepared based on the information available to Alttox A/S at the revision date.

Changes since the previous edition:

Not relevant – first edition

Prepared by: Alttox a/s – Tonsbakken 16-18 - 2740 Skovlunde - Phone +45 - 38 34 77 98 / PW - Quality control: PH