according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

ADDIFLON PFPE Solvent A

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

Use of the substance/mixture

Cleaning agent. Solvents.

1.3. Details of the supplier of the safety data sheet

Manufacturer		
Company name:	ADDINOL Lube Oil GmbH	
	Gebäude 4609	
Street:	Am Haupttor	
Place:	D-06237 Leuna	
Telephone:	+49 (0) 3461 845-0	Telefax:+49 (0) 3461 845-555
E-mail:	info@addinol.de	
Contact person:	Application Technology	
Internet:	www.addinol.de	
Responsible Department:	ADDINOL Application Technology	
Supplier		
Company name:	GEM OILS LIMITED	
Place:	IRL-H12K298 Regaskin Co. Cavan	
Telephone:	+353 49 4378116	Telefax: +353 49 4368329
E-mail:	sales@gemoils.ie	
Contact person:	GEM OILS LIMITED	Telephone: +353 49 4378116
E-mail:	sales@gemoils.ie	
Internet:	https://gemoils.ie/	
1.4. Emergency telephone	Healthcare Professionals: +353 (1) 809	2566 (24 hour service)
numbor		. ,

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aquatic Chronic 4; H413

Full text of hazard statements: see SECTION 16.

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard statements

H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements

P273 P501 Avoid release to the environment.

Dispose of contents/container to industrial incineration plant.

Additional advice on labelling

Product is classified and labelled in accordance with EC regulations or the corresponding national laws.

2.3. Other hazards

according to Regulation (EC) No 1907/2006

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No risks worthy of mention.

If handled with proper care and at intended use, the product does not cause any harmful effects acc. to our experiences and available information.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name		Quantity	
	EC No	EC No Index No REACH No		
	Classification (Regulation (EC) No 1272/2008)			
161075-00-9	Hexafluoropropene, oxidized, oligomers, reduced, fluorinated		80 - < 100 %	
	500-537-5		01-2119970717-25	
	Aquatic Chronic 4; H413			

Full text of H and EUH statements: see section 16.

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
161075-00-9	500-537-5	Hexafluoropropene, oxidized, oligomers, reduced, fluorinated	80 - < 100 %
inhalation: LC50 = > 94700 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg			

Further Information

Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Provide fresh air. Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove/Take off immediately all contaminated clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water. Call a physician immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

according to Regulation (EC) No 1907/2006

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5.1. Extinguishing media

Suitable extinguishing media

Foam. Extinguishing powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet. 5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Hydrogen fluoride. Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray jet to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Avoid contact with skin, eyes and clothes.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Section 12: Ecological Information (non-mandatory) Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid oil mist Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity. Keep container tightly closed in a cool place. Keep/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs. Keep away from: Oxidizing agent.

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Further information on storage conditions

Protect against: UV-radiation/sunlight. frost. heat. Recommended storage temperature: 5 - 30°C

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
161075-00-9	Hexafluoropropene, oxidized, oligomers, reduced, fluorinate	ed		
Worker DNEL, long-term inhalation systemic 3088 mg/m ³		3088 mg/m³		
Consumer DNEL, long-term inhalation systemic 2304 mg/m ³		2304 mg/m ³		

PNEC values

CAS No	Substance	
Environmenta	l compartment	Value
161075-00-9	Hexafluoropropene, oxidized, oligomers, reduced, fluorinated	
Freshwater		0,000208 mg/l
Marine water		0,000021 mg/l
Freshwater sediment 0,11515		0,11515 mg/kg
Marine sedime	ent	0,01151 mg/kg
Secondary poisoning		33 mg/kg
Soil		0,18371 mg/kg

Additional advice on limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2. Exposure controls





Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): EN 166

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN ISO 374

Duration of wearing with permanent contact: 480 min Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0.4 mm

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Protect skin by using skin protective cream. Unsuitable material: Thick material.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Cosaint riospráide le scagaire i gcoinne gás orgánach agus gaile cineál A - fiuchphointe> 65 ° C: A1: <1000 ppm; A2: <5000 ppm; A3: <10,000 ppm.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

	Physical state:	liquid		
	Colour:	colourless		
	Odour:	odourless		
	Odour threshold:	not determined		
				Test method
	Melting point/freezing point:		No data available	
	Boiling point or initial boiling point and		55 °C	
	boiling range:			
	Flammability:		No data available	
	Lower explosion limits:		No data available	
	Upper explosion limits:		No data available	
	Flash point:		not applicable	
	Auto-ignition temperature:		not determined	
	Decomposition temperature:		>290 °C	
	pH-Value:		not applicable	
	Viscosity / kinematic:		0,45 mm²/s	
	(at 20 °C)			
	Water solubility:		insoluble	
	Solubility in other solvents			
	No data available			
	Partition coefficient n-octanol/water:		No data available	
	Vapour pressure:		No data available	
	Density (at 20 °C):		1,68 g/cm³	DIN 51757
	Relative vapour density:		No data available	
	Particle characteristics:		No data available	
<u>9.</u>	2. Other information			
	Information with regard to physical haza	ard classes		
	Explosive properties			
	No data available			
	Self-ignition temperature			
	Solid:		No data available	
	Gas:		No data available	
	Oxidizing properties			
	No data available			
	Other safety characteristics			
	Evaporation rate:		No data available	
	Pour point:		-110 °C	ASTM D 97-66

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Do not overheat to avoid decomposition by heat.

Refer to chapter 7 No further action is necessary.

10.5. Incompatible materials

none

10.6. Hazardous decomposition products

In case of fire may be liberated: Hydrogen fluoride. Carbon monoxide. Carbon dioxide (CO2).

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.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
161075-00-9	Hexafluoropropene, oxidi:	zed, oligomers, reduced	, fluorinated		
	oral	LD50 > 5000 mg/kg	Rat	Study report (1992)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2006)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 > 94700 mg/l	Rat	Study report (1997)	OECD Guideline 403

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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.

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Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

not applicable

SECTION 12: Ecological information

12.1. Toxicity

May cause long lasting harmful effects to aquatic life.

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d] Species	Source	Method
161075-00-9	Hexafluoropropene, oxidized, oligomers, reduced, fluorinated				
	Acute fish toxicity	LC50 > 100 mg/l	96 h Danio rerio	=	OECD Guideline 203
	Acute bacteria toxicity	EC50 > 1000 mg/l()	0,5 h activated sludge, domestic	Study report (2013)	OECD Guideline 209

12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria). Do not allow to enter into surface water or drains.

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
161075-00-9	Hexafluoropropene, oxidized, oligomers, reduced, fluorinated	5,58

12.4. Mobility in soil

Due to its low solubility in water the product is almost completely mechanically separated in biological waste water treatment plants.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

List of Wastes Code - residues/unused products

140602 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other halogenated solvents and solvent mixtures; hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing

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which cannot be properly cleaned must be thrown away. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Inland waterways transport (ADN)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Marine transport (IMDG)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
14.5. Environmental hazards	

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

EU regulatory information	
Restrictions on use (REACH, annex XVII): Entry 3	
Directive 2004/42/EC on VOC in paints and varnishes:	100%
National regulatory information	
Water hazard class (D):	1 - slightly hazardous to water
15.2. Chemical safety assessment	
Chemical safety assessments for subst	ances in this mixture were not carried out.

SECTION 16: Other information

according to Regulation (EC) No 1907/2006

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Abbreviations and acronyms

Aquatic Chronic: Chronic aquatic hazard

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ADN -European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ASTM - American Society for the Testing of Materials; ATE - Acute Toxicity Estimates; bw - Body weight; CAO -Cargo Aircraft Only; CAS - Chemical Abstracts Service; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL - Derived No-Effect Level; DOT -Department of Transportation; DSL - Domestic Substances List (Canada); EG - European Union; EN -European standards; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n;o;s; - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulation concerning the International Carriage of Dangerous Goods by Rail; RQ -Reportable Quantity; SADT - Self- Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Aquatic Chronic 4; H413	Calculation method

Relevant H and EUH statements (number and full text)

May cause long lasting harmful effects to aquatic life.

Further Information

H413

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)