

Material Safety Data Sheet – AutoFireX®FK5-1-12Fire Extinguishing Clean Agent

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH)
and Regulation (EU) No 2015/830

Perfluoro(2-methyl-3-pentanone)

Revision date: 9/2/2020
Version: 1
Language: EN-GB, IE
Date of print: 25/7/2020

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

1.1 Product identifier

Trade name: Perfluoro(2-methyl-3-pentanone)- AutoFireX® FK-5-1-12 Clean Agent
Chemical name: 1,1,1,2,2,4,5,5,5-Nonafluoro-4-(Trifluoromethyl)-3-Pentanone
CAS-Number: 756-13-8
EC-number: 436-710-6
REACH registration number: 01-2120426966-44-0002

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

General use: Streaming and flooding fire protection
For industrial purposes only.

1.3 Details of the supplier of the safety data sheet

Company name: AutoFireX Limited.
Street/POB-No.: 12, High Street, Stonehouse
Postal Code, city: GL10 2NA, Gloucestershire, England.
United Kingdom
Telephone: +44-(0)1453 890 562
E-mail: info@autofirex.co.uk
Website: www.autofirex.co.uk

1.4 Emergency telephone number

Telephone: +44 (0)1453 890562

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (CLP)

Hazard statements: H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.

P501 Dispose of contents/container to hazardous or special waste collection point.

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2.3 Other hazards

Thermal decomposition: Inhaling hazardous decomposing products can cause serious health damage.

Vapour undergoes indirect photolysis in the troposphere.

Degradation products: Hydrogen fluoride, Carbon dioxide, Trifluoroacetic acid.

Atmospheric lifetime: approx. 5 days.

Results of PBT and vPvB assessment: No data available

SECTION 3: Composition/ information on ingredients

3.1 Substances

Chemical characterisation: C₆F₁₂O
1,1,1,2,2,4,5,5,5-Nonafluoro-4-(Trifluoromethyl)-3-Pentanone, >=99.7%

CAS-Number: 756-13-8
EC-number: 436-710-6

SECTION 4: First Aid measures

4.1 Description of first aid measures

In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Put victim at rest and keep warm. In the event of persistent symptoms seek medical treatment.

Following skin contact: Thoroughly wash skin with soap and water. In case of skin irritation, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth with water. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing material as appropriate for the surrounding area.

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Hydrogen fluoride, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

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Additional information:

Hazchem-Code: -

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities. Use water spray jet to knock down vapours. Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental Release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapour/aerosol. Wear appropriate protective equipment. Keep unprotected people away.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.
If necessary notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Do not breathe vapour/aerosol. Wear appropriate protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight. Store in a dry place.

Hints on joint storage:

Do not store together with: Strong bases, amines, alcohols.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information:

Manufacturer information: TWA: 150 ppm

8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.

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Personal protection equipment

Occupational exposure controls

Respiratory protection:	Use a breathing protection against vapours/aerosol. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection:	Protective gloves according to EN 374. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to EN 166
Body protection:	Wear suitable protective clothing.
General protection and hygiene measures:	Do not breathe vapour/aerosol. Change contaminated clothing. When using do not eat, drink, or smoke. Wash hands before breaks and after work. Keep away from food, drink, and animal feeding stuffs.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: liquid Colour: colourless, clear
Odour:	weak
Odour threshold:	No data available
pH value:	not applicable
Melting point/freezing point:	-108 °C
Initial boiling point and boiling range:	49 °C
Flash point/flash point range:	not applicable
Evaporation rate:	(Butyl acetate =1) ≥ 1
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): not applicable UEL (Upper Explosive Limit): not applicable
Vapour pressure:	at 20 °C: 328 hPa
Vapour density:	(Air =1) 11.6
Density:	at 20 °C: 1.6 g/mL
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not applicable
Decomposition temperature:	No data available
Viscosity, dynamic:	at 25 °C: 0.6 mPa*s
Explosive properties:	No data available
Oxidizing characteristics:	No data available
Specific Gravity	1.6
Volatile Organic Compounds (VOC)	- 1600 g/l
Ozone Depletion Potential (ODP):	0
Global Warming Potential:	< 1

9.2 Other information

Molecular weight 316.04 g/mol
Additional information: No data available

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SECTION 10: Stability and reactivity

10.1 Reactivity

refer to 10.3

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling

10.4 Conditions to avoid

Protect from heat and direct sunlight.

10.5 Incompatible materials

Strong bases, amines, alcohols.

10.6 Hazardous decomposition products

Hydrogen fluoride, carbon monoxide and carbon dioxide.
Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects:

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

Eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Harmful to aquatic life with long lasting effects

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12.2. Persistence and degradability

Further details: Vapour undergoes indirect photolysis in the troposphere.
Degradation products: Hydrogen fluoride, Carbon dioxide,
Trifluoroacetic acid.
Atmospheric lifetime: 3 - 5 days.

12.3 Bio accumulative potential

Partition coefficient: n-octanol/water: No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to enter into groundwater, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 07 01 03* = Organic halogenated solvents, washing liquids and
mother liquors

* = Evidence for disposal must be provided.

Recommendation: Dispose of as special waste in compliance with local and national
regulations.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle
contaminated packages in the same way as the substance itself. Non-
contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR: not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR: Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR: not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR: not applicable

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14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -
No data available

National regulations - EC member states

Volatile organic compounds (VOC):
100 % by weight = 1600 g/L

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Further information

Date of first version: 25/1/2017

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

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

The information in this data sheet has been established to our best knowledge and was up to date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.