



Safety Data Sheet

FK-5-1-12

Revision Date July 2018 Version 3.0

1. PRODUCT IDENTIFICATION

Product Name: FK5-1-12
Chemical: 1,1,1,2,2,4,5,5,5-Nonafluoro-4-(Trifluoromethyl)-3-Pentanone
Dodecafluoro-2-methylpentan-3-one, Perfluoro(2-Methyl-3-Pentanone)
Product Use: Fire Extinguishing Agent
Importer / Supplier: Fire Protection Technologies
Address: Unit 1/251 Ferntree Gully Road
Mt Waverley, Victoria, 3149 Australia.
Telephone Number 1300 742 296
Emergency Tel No. 24 hours 1300 742 296
Emergency Services: Dial 000
Manufacturer: Fike International

2. HAZARD IDENTIFICATION

OSHA/HCS status This material is not classified as hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture Not classified

GHS label elements Not applicable

Hazard pictograms Not applicable

Signal word Warning

Hazard statements H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
P233: Keep container tightly closed in a cool/well-ventilated place
P260: Do not breathe dust/fumes/gas/vapours/spray
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

Precautionary statements May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products.

Other Hazard. In high concentrations, vapors may reduce oxygen available for breathing.
Liquid contact with eyes or skin may cause mild irritation



3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
1,1,1,2,2,4,5,5,5-Nonafluoro-4-(Trifluoromethyl)-3-Pentanone	756-13-8	≥99.60

4. FIRST AID MEASURES

- INHALATION:** Remove to fresh air
Oxygen or artificial respiration if needed
If unconscious, place in recovery position and get medical attention immediately
Flush exposed skin with lukewarm water (not hot), or use other means to warm skin slowly
- SKIN:** Remove contaminated clothing and shoes
Get medical attention if frostbitten by liquid or if irritation persists
- EYES:** Immediately flush with large amounts of water for at least 15 minutes
Get medical attention if irritation occurs
- INGESTION:** DO NOT induce vomiting unless instructed to do so by a physician. Get medical attention immediately if symptoms develop.
- Note to physician** Immediate medical attention is not required
When symptoms persist or in all cases of doubt seek medical advice

5. FIRE FIGHTING MEASURES

- Extinguishing media:** Product is a fire-extinguishing agent. Use media appropriate to surrounding material
- Special hazards arising from the substance or mixture:** Thermal decomposition may cause toxic products. Containers may explode in heat of fire.
- Special protective equipment for firefighters:** Wear self-contained breathing apparatus with a full face-piece operated in positive pressure mode and chemical-protective clothing. Prevent fire extinguishing water from contaminating surface water or the ground water system

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures:** Refer to Section 8 for personal protective equipment. Prevention of skin and eye contact. Ensure adequate ventilation. Remove all sources of ignition. Shut off supply if this can be done safely
- Environmental precautions:** Do not discharge into drains/surface waters/groundwater
- Methods and material for containment and cleaning up:** Evacuate area. Keep upwind. Stop leak if without risk. Ventilate area especially low places remove open flames and heating elements. Disperse it with floor level forced air
- Reference to other SECTIONS:** See SECTION 7 for information on safe handling, See SECTION 8 for information on personal protection equipment, See SECTION 13 for information on disposal

7. HANDLING AND STORAGE

- HANDLING:** Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement
- STORAGE:** Keep container tightly closed and in a cool, well-ventilated place.



Keep out of direct sunlight. Keep away from heat and ignition sources

PACKING MATERIAL: Steel drum

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values 150 ppm, 8 hr TWA

8.2 Exposure controls

Appropriate engineering controls Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits

Personal protective equipment

Respiratory Protection In case of inadequate ventilation wear respiratory protection

Skin Protection Wear protective gloves/clothing to prevent contact

Eye Protection Safety glasses/chemical splash goggles

Environmental exposure controls Do not empty into drains

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Color	colorless
Odour	Low odour
pH	Not available
Melting point	- 108°C
Boiling point	49 °C
Flash point	Not available
Evaporation rate	> 1(BUOAC = 1.0)
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	Not available
Vapour pressure	40.4 Kpa (25°C)
Specific gravity H ₂ O=1	1.6 g/cm ³
Solubility(ies)	Not available
Partition coefficient (ent: n-octanol/water)	log Kow = 2.11
Auto-ignition temperature	Not available
Viscosity	0.6 mPa.s (25°C)

10. STABILITY AND REACTIVITY

Reactivity	Stable under recommended storage and handling conditions (see SECTION 7, handling and storage)
Chemical stability	Stable under normal conditions of use
Possibility of hazardous reactions	No known hazardous reaction
Conditions to avoid	Keep away from heat and ignition sources. Protect from sunlight
Incompatible materials	Strong oxidizing materials, Strong acids and bases
Hazardous decomposition products	Thermal decomposition can lead to release of irritating or toxic gases/vapors: carbon oxides, hydrogen fluoride

11. TOXICOLOGICAL INFORMATION

1.1 Information on toxicological effects

Acute Toxicity

Ingredient name	LD50 Oral(rat)	LD50 Dermal (rat)	LC50 Inhalation (rat)
1,1,1,2,2,4,5,5,5,- Nonafluoro-4-(trifluor omethyl)-3-pentanone	> 2,000 mg/kg	> 2,000 mg/kg	> 1,227 mg/l/4h (>10% by volume)

Skin corrosion/irritation	No information available
Serious eye damage/irritation	No information available
Respiratory or skin sensitization	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available
STOT-single exposure	No information available
STOT-repeated exposure	No information available
Aspiration hazard	No information available
Carcinogenicity	Not listed as a carcinogen by NTP, IARC or OSHA

12. ECOLOGICAL INFORMATION

Toxicity (Ecotoxicity Fish, LC 50)	> 1200 mg/l (Zebra Fish, 96h)
Degradability	Atmospheric lifetime is approximately 0.014 years(5 days)
Bioaccumulation/ Accumulation	No data available
Mobility in Environmental Media	Not available
Other adverse effects	Ozone Depletion Potential (CFC 11 = 1.0): 0.00 Global Warming Potential (CO2 = 1.0): 1.00

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Disposal must be made according to local and national regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

Item	Land <input type="checkbox"/> EU: ADR/RID <input type="checkbox"/> US:DOT	SEA IMD	AIR ICAO / IATA
UN-Number	General Cargo	General Cargo	General Cargo
Packaging Group			

Special precautions for user None determined



15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Listed in international inventories:

Ingredient name	TSCA	DSL	NDSL	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
1,1,1,2,2,4,5,5,5,- Nonafluoro-4 - (trifluoromethyl)- 3-pentanone	YES	YES	NDA	YES	YES	YES	YES	YES	YES

15.2. Other regulations

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

- not regulated.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

16. OTHER INFORMATION

In accordance with good practices of personal cleanliness and hygiene handle with the care and avoid unnecessary contact with this product.

This information is being supplied to you under OSHA Hazard Communication Standard 29 CFR 1910.1200 and is offered in good faith as typical values and not as a product specification. The information contained herein is based on the data available to us and is believed to be true and accurate.

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