



## Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard ( 29CFR 1910.1200)

**Product name** 3M™ Novec™ 1230 Fire Protection Fluid [FK-5-1-12]

### 1. Identification

#### 1.1. Product Identifier

**Product name** 3M™ Novec™ 1230 Fire Protection Fluid [FK-5-1-12]

#### 1.2. Other means of identification

**Product code** 553449  
**UN/ID no** UN1066  
**Synonyms** None  
**Chemical Family** No information available

#### 1.3. Recommended use of the chemical and restrictions on use

**Recommended use** No information available  
**Uses advised against** Consumer use

#### 1.4. Details of the Supplier of the Safety Data Sheet

**Company Name** Tyco Fire Protection Products  
One Stanton Street  
Marinette, WI 54143-2542  
Telephone: 715-735-7411

**Contact point** Product Stewardship at 1-715-735-7411  
**E-mail address** psra@tycofp.com

#### 1.5. Emergency Telephone Number

**Emergency telephone** CHEMTREC 800-424-9300 or 703-527-3887

### 2. Hazards Identification

#### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Gases Under Pressure - Compressed Gas  
Simple asphyxiants - Yes

#### 2.2. Label Elements

#### **Signal Word**

WARNING

#### **hazard statements**

Contains gas under pressure; may explode if heated  
May displace oxygen and cause rapid suffocation



The product contains no substances which at their given concentration, are considered to be hazardous to health

## Precautionary Statements

### Storage

Protect from sunlight. Store in a well-ventilated place.

### 2.3. Hazards Not Otherwise Classified (HNOC)

Contact with product may cause frostbite. Simple asphyxiants.

### 2.4. OTHER INFORMATION

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

## 3. Composition/information on Ingredients

### 3.1. Substance

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No	weight-%
1,1,1,2,2,4,5,5,5-Nonafluoro-4-(trifluoromethyl)-3-pentanone	756-13-8	60 - 100

## 4. First aid measures

### 4.1. Description of first aid measures

#### General Advice

Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

#### Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

#### Skin contact

Wash skin with soap and water. Get medical attention if irritation develops and persists.

#### Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.).

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<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

#### **4.2. Most Important Symptoms and Effects, Both Acute and Delayed**

**Symptoms** Unconsciousness.

#### **4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed**

**Note to physicians** Treat symptomatically.

### **5. Fire-fighting measures**

#### **5.1. Suitable Extinguishing Media**

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **5.2. Unsuitable Extinguishing Media**

None.

#### **5.3. Specific Hazards Arising from the Chemical**

None known.

**Hazardous Combustion Products** Carbon oxides, Fluorinated oxides, Nitrogen oxides (NOx), Oxides of sulfur

#### **5.4. Explosion Data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

#### **5.5. Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **6. Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Ensure adequate ventilation, especially in confined areas.

**OTHER INFORMATION** Ventilate the area.

**For emergency responders** Use personal protection recommended in Section 8.

#### **6.2. Environmental Precautions**

**Environmental Precautions** Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

#### **6.3. Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Pick up and transfer to properly labeled containers.

## 7. Handling and Storage

### 7.1. Precautions for Safe Handling

**Advice on safe handling** Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Materials** Strong oxidizing agents. Strong acids. Strong bases.

## 8. Exposure Controls/Personal Protection

### 8.1. Control Parameters

Exposure guidelines

### 8.2. Appropriate Engineering Controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### 8.3. Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Avoid contact with eyes. Tight sealing safety goggles.

**Skin and Body Protection** Wear protective gloves and protective clothing.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Ventilation** Use local exhaust or general dilution ventilation to control exposure with applicable limits

### 8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Color</b>	Colorless
<b>Odor</b>	Characteristic		
<b>odor threshold</b>	No data available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks • Method</u>
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pH	No data available
Melting point/freezing point	No data available
Boiling point / boiling range	49 °C / 120 °F
Flash Point	No data available
Evaporation Rate	No data available
flammability (solid, gas)	No data available
Flammability limit in air	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific gravity	No data available
Water Solubility	No data available
Solubility in Other Solvents	No data available
Partition coefficient	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Kinematic viscosity	No data available

## 10. Stability and Reactivity

### 10.1. Chemical Stability

Stable under recommended storage conditions.

### 10.2. Reactivity

No data available

### 10.3. Possibility of hazardous reactions

None under normal processing.

**hazardous polymerization** Hazardous polymerization does not occur.

### 10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

### 10.5. Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur. Fluorinated oxides.

## 11. Toxicological Information

### 11.1. Information on Likely Routes of Exposure

Product information

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<b>INHALATION</b>	In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.
<b>Eye Contact</b>	Contact with product may cause frostbite.
<b>Skin contact</b>	Contact with product may cause frostbite.
<b>INGESTION</b>	Not an expected route of exposure.

### Acute Toxicity

#### 11.2. Information on Toxicological Effects

**Symptoms** No information available.

#### 11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

**sensitization** No information available.  
**Germ Cell Mutagenicity** No information available  
**carcinogenicity** No information available.  
**Reproductive Toxicity** Lack of oxygen during pregnancy has produced developmental abnormalities in humans and experimental animals.  
**STOT - Single Exposure** No information available.  
**STOT - Repeated Exposure** No information available.  
**Target organ effects** Respiratory System.  
**Aspiration Hazard** No information available.

#### 11.4. Numerical Measures of Toxicity - No information available

## **12. Ecological Information**

### 12.1. ecotoxicity

Not classified

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

### 12.2. Persistence and Degradability

No information available.

### 12.3. Bioaccumulation

No information available.

### 12.4. Other Adverse Effects

No information available

## **13. Disposal Considerations**

### 13.1. Waste Treatment Methods

#### **Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated Packaging**

Do not reuse container.

## **14. Transport Information**

### DOT

UN/ID no	UN1066
Description	UN1066, Nitrogen, compressed, 2.2
Proper Shipping Name	Nitrogen, compressed
Hazard class	2.2
Emergency Response Guide Number	121

### TDG

UN/ID no	UN1066
Description	UN1066, Nitrogen, compressed, 2.2
Proper Shipping Name	Nitrogen, compressed
Hazard class	2.2

### MEX

UN/ID no	UN1066
Description	UN1066, Nitrogen, compressed, 2.2
Proper Shipping Name	Nitrogen, compressed
Hazard class	2.2

### ICAO (air)

UN/ID no	UN1066
Description	UN1066, Nitrogen, compressed, 2.2
Proper Shipping Name	Nitrogen, compressed
Hazard class	2.2
Special Provisions	A69

### IATA

UN/ID no	UN1066
Description	UN1066, Nitrogen, compressed, 2.2
Proper Shipping Name	Nitrogen, compressed
Hazard class	2.2
ERG Code	2L
Special Provisions	A69

### IMDG

UN/ID no	UN1066
Description	UN1066, Nitrogen, compressed, 2.2
Proper Shipping Name	Nitrogen, compressed
Hazard class	2.2
EmS-No	F-C, S-V

## 15. Regulatory Information

### 15.1. International Inventories

TSCA	Complies
DSL/NDSL	Complies
ENCS	Complies
IECSC	Complies
KECL	Does not comply
PICCS	Does not comply
AICS	Complies

#### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

### 15.2. US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic health hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### 15.3. US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

## 16. Other information, including date of preparation of the last revision





Product code 553449

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<u>NFPA</u>	Health Hazards 3	flammability 0	Instability 0	Physical and chemical properties -
<u>HMS</u>	Health Hazards 0	flammability 0	Physical Hazards 3	Personal Protection X

Revision date 25-May-2015

**Revision note**

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet