

## Section 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product Name** FPRM11

Contains Undecane  
Contains Undecane

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

**Recommended Use** Flash point testing equipment performance verification reference material

**Uses advised against** No information available

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

**Supplier**

Cannon Instrument Company  
2139 High Tech Rd.  
State College, PA 16803-1733  
TEL: (814) 353-8000; (800) 676-6232

**For further information, please contact**

**E-mail Address** No information available.

### 1.4. Emergency telephone number

**Emergency Telephone Number** (800) 255-3924 Domestic CHEM-TEL Inc.  
+1 (813) 248-0585 Overseas CHEM-TEL Inc. (Please Call Collect)

<b>Europe</b>	112
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## Section 2. Hazards identification

### 2.1. - Classification of the substance or mixture

**REGULATION (EC) No 1272/2008**

Aspiration Toxicity	Category 1
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2

**Physical Hazards**

None

### 2.2. Label Elements



**Signal Word**

**Danger**

**Hazard Statements**

H304 - May be fatal if swallowed and enters airways  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

**Precautionary Statements - EU (§28, 1272/2008)**

P280 - Wear protective gloves/ eye protection/ face protection

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P331 - Do NOT induce vomiting

**2.3. Other information**

Prolonged skin contact may defat the skin and produce dermatitis. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

## Section 3. Composition/information on ingredients

**3.1. Substances****3.2. Mixtures**

Chemical Name	EC-No	CAS-No	Weight %	EU - GHS Substance Classification	REACH No.
Undecane	214-300-6	1120-21-4	100	Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	No data available

**For the full text of the H-Statements mentioned in this Section, see Section 16**

## Section 4. First aid measures

**4.1. Description of first-aid measures**

<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Obtain medical attention if irritation persists.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Drink plenty of water. Get medical attention.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur. Artificial respiration and/or oxygen may be necessary. If breathing has stopped, contact emergency medical services immediately.

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

**Most Important Symptoms/Effects** Drowsiness. Dizziness. Irritation. Difficulty in breathing. Coughing and/ or wheezing. Nausea. Tremors. Headaches. Neurological disorders.

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

**Notes to Physician** Aspiration hazard.

## Section 5. Fire-fighting measures

**5.1. Extinguishing media****Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry powder.

**Extinguishing media which must not be used for safety reasons**

No information available.

**5.2. Special hazards arising from the substance or mixture**

**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases**

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide, Carbon dioxide.

**5.3. Advice for firefighters****Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

**Section 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

**6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**6.3. Methods and materials for containment and cleaning up**

Dike to collect large liquid spills. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Clean contaminated surface thoroughly.

**6.4. Reference to other sections**

See Section 12 for additional information.

**Section 7. Handling and storage****7.1. Precautions for Safe Handling****Handling**

Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

**7.3. Specific end use(s)****Exposure Scenario**

No information available.

**Other Guidelines**

No information available.

**Section 8. Exposure controls/personal protection****8.1. Control parameters****Exposure Limits**

Chemical Name	Finland	France	Germany	Gibraltar	Greece
Undecane 1120-21-4		TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>			
Chemical Name	The Netherlands	Norway	Poland	Portugal	Spain
Undecane 1120-21-4		TWA: 40 ppm TWA: 275 mg/m <sup>3</sup> STEL: 40 ppm STEL: 275 mg/m <sup>3</sup>			

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Derived No Effect Level** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas.
<b>Personal protective equipment</b>	Personal protection equipment should be chosen according to the CEN standards
<b>Eye Protection</b>	Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles.
<b>Skin and Body Protection</b>	Wear fire/flamm resistant/retardant clothing.
<b>Hand Protection</b>	Impervious gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
<b>Respiratory Protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Environmental Exposure Controls** No information available.

**Section 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Appearance</b>	Colorless
<b>Odor</b>	Hydrocarbon-like		
<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>	
<b>pH</b>	No data available	None known	
<b>Melting Point/Range</b>	-10 °C	None known	
<b>Boiling Point/Boiling Range</b>	196 °C	None known	
<b>Flash Point</b>	65 °C	Closed cup	
<b>Evaporation rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limits in Air</b>	No data available	None known	
<b>Vapor Pressure</b>	No data available.	None known	
<b>Vapor Density</b>	No data available.	None known	
<b>Relative Density</b>	No data available 0.74	None known	
<b>Water Solubility</b>	Insoluble in water.	None known	
<b>Solubility in other solvents</b>	Soluble in solvents.	None known	
<b>Partition coefficient: n-octanol/water</b>	No data available	None known	
<b>Autoignition Temperature</b>	No data available	None known	
<b>Decomposition Temperature</b>	No data available	None known	
<b>Viscosity</b>	1.5 cSt @ 20°C	None known	
<b>Explosive Properties</b>	No information available		
<b>Oxidizing Properties</b>	No information available		

**9.2. Other information**

**VOC Content (%)** No information available

**Section 10. Stability and reactivity****10.1. Reactivity**

Not reactive under normal conditions.

**10.2. Chemical stability**

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

### 10.4. Conditions to avoid

Ignitions sources - heat, sparks and open flames.

### 10.5. Incompatible materials

Halogens. Strong oxidizing agents. Molten sulfur.

### 10.6. Hazardous decomposition products

Carbon oxides.

## Section 11. Toxicological information

### 11.1. Information on toxicological effects

#### Acute Toxicity

##### Product Information

##### Inhalation

May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

##### Eye Contact

Contact with eyes may cause irritation.

##### Skin Contact

May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the skin and produce dermatitis.

##### Ingestion

Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.

#### Acute Toxicity

100% of the mixture consists of ingredient(s) of unknown toxicity.

#### The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	99,999.00 mg/kg
LD50 Dermal	99,999.00 mg/kg
Gas	99,999.00 mg/L
Dust/Mist	99,999.00 mg/L
Vapor	99,999.00 mg/L

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Undecane			> 2.82 mg/L ( Rat ) 8 h > 442 ppm ( Rat ) 8 h

#### Sensitization

No information available.

#### Mutagenic Effects

No information available.

#### Carcinogenic Effects

No information available.

#### Reproductive Toxicity

No information available.

#### Developmental Toxicity

No information available.

#### STOT - single exposure

See listed target organs below.

#### STOT - repeated exposure

See listed target organs below.

##### Target Organ Effects

Central nervous system (CNS). Liver. Kidney. Respiratory system. Cardiovascular system.

##### Neurological Effects

Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

#### Aspiration Hazard

May be fatal if swallowed and enters airways.

## Section 12. Ecological information

### 12.1. Toxicity

#### Ecotoxicity Effects

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to	Daphnia Magna (Water

			<b>Microorganisms</b>	<b>Flea)</b>
Undecane				EC50 48 h: = 0.02856 mg/L (Daphnia magna)

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Other adverse effects**

This product does not contain any known or suspected endocrine disruptors.

## Section 13. Disposal considerations

**13.1. Waste treatment methods****Waste from Residues / Unused Products**

Dispose of in accordance with local regulations.

**Contaminated Packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. Transport information

**Note:**

The information provided below may not apply to all shipping situations. Consult appropriate Dangerous Goods Regulations for additional requirements and mode-specific, material-specific, or quantity-specific shipping requirements.

**IMDG/IMO**

<b>14.1. UN-Number</b>	UN2330
<b>14.2. Proper Shipping Name</b>	Undecane
<b>14.3. Hazard Class</b>	3
<b>14.4. Packing Group</b>	III
<b>Description</b>	UN2330, Undecane, 3, III
<b>14.5. Marine Pollutant</b>	None
<b>14.6. Special Provisions</b>	None
<b>EmS No.</b>	F-E, S-E
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available.

**RID**

<b>14.1. UN-Number</b>	UN2330
<b>14.2. Proper Shipping Name</b>	Undecane
<b>14.3. Hazard Class</b>	3
<b>14.4. Packing Group</b>	III
<b>Description</b>	UN2330, Undecane, 3, III
<b>14.5. Environmental hazard</b>	None
<b>14.6. Special Provisions</b>	None

<b>Classification Code</b>	F1
<b>ADR</b>	
14.1. UN-Number	UN2330
14.2. Proper Shipping Name	Undecane
14.3. Hazard Class	3
ADR/RID-Labels	3
14.4. Packing Group	III
Description	UN2330, Undecane, 3, III, (D/E)
14.5. Environmental hazard	None
14.6. Special Provisions	None
Classification Code	F1

<b>ICAO</b>	
14.1. UN-Number	UN2330
14.2. Proper shipping name	Undecane
14.3. Hazard Class	3
14.4. Packing Group	III
Description	UN2330, Undecane, 3, III
14.5. Environmental hazard	None
14.6. Special Provisions	None

<b>IATA</b>	
14.1. UN-Number	UN2330
14.2. Proper Shipping Name	Undecane
14.3. Hazard Class	3
14.4. Packing Group	III
Description	UN2330, Undecane, 3, III
14.5. Environmental hazard	None
14.6. Special Provisions	None
ERG Code	3L

## Section 15. Regulatory information

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

#### International Inventories

<b>TSCA</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>PICCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>AICS</b>	Complies
<b>KECL</b>	Complies

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

### 15.2. Chemical Safety Assessment

No information available

## Section 16. Other information

#### Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation  
H319 - Causes serious eye irritation

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

<b>Issuing Date</b>	24-Apr-2014
<b>Revision Date</b>	29-Aug-2017
<b>Revision Note</b>	(M)SDS sections updated: 3, 8.

**This safety data sheet complies with the requirements of Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No. 1907/2006**

**General Disclaimer**

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of Safety Data Sheet**