

Product Name: **Flash Point Reference Material
– FPRM2D**

Revision Date: *April 25, 2007*



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MATERIAL SAFETY DATA SHEET

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| SECTION 1 | PRODUCT AND COMPANY IDENTIFICATION |
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PRODUCT

Product name: **Flash Point Reference Material – FPRM2D**

Alternate description/ brand: FPRM2D

Product description: Synthetic base oil

Product code: 9727-A30

Intended use: Flash Point Reference standard

COMPANY IDENTIFICATION

Supplier: Cannon Instrument Company
2139 High Tech Road
State College, Pennsylvania 16803

Product Technical Information: (814) 353-8000

Product MSDS Information: (814) 353-8000

EMERGENCY TELEPHONE NUMBER:

24-Hour Transportation Emergency: (800) 255-3924 Domestic CHEM-TEL Inc.

24-Hour Health Emergency: +1 (813) 248-0585 Overseas CHEM-TEL Inc. (please call collect)

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| SECTION 2 | COMPOSITION/INFORMATION ON INGREDIENTS |
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- **OSHA Hazardous Substance(s) or Complex Substance(s)**

None present. This is not a hazardous substance as defined in the OSHA Hazard Communication Standard

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| SECTION 3 | HAZARD IDENTIFICATION |
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This product is not classified as hazardous

EFFECTS OF OVEREXPOSURE:

Acute effects

Eye: Non-toxic, not classified as irritating. Direct contact may cause temporary redness and discomfort.

Skin: No significant irritation expected from a single short-term exposure

Inhalation: No significant effects expected from a single short-term exposure. Inhalation exposures are not expected under recommended uses/ conditions

Oral: Low toxicity. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause severe pulmonary injury, possibly progressing to death.

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Prolonged/ repeated exposure effects

Skin: Not classified as hazardous

Inhalation: Not classified as hazardous

Oral: Not classified as hazardous

Repeated and/or prolonged exposure may cause irritation to the skin, eyes or respiratory tract.

Signs and symptoms of overexposure:

Irritation and/ or redness of eyes and skin

Medical conditions aggravated by exposure

None identified

NFPA HAZARD ID: Health: 0 Flammability: 1 Reactivity: 0
(National Fire Protection Association)

NOTE: This material should not be used for any other purpose than the intended use in Section 1

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| SECTION 4 | FIRST AID MEASURES |
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| INHALATION | If respiratory irritation, dizziness, nausea, or unconsciousness occurs due to excessive vapor or mist exposure, seek medical assistance. |
| SKIN CONTACT | Wash contact areas with soap and water. Remove and clean oil soaked clothing daily and wash affected area. |
| EYE CONTACT | Flush thoroughly with water. If irritation persists, call a physician. |
| INGESTION | If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention. |

NOTE TO PHYSICIAN: Ingested material, if aspirated into the lungs, may cause chemical pneumonitis.

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| SECTION 5 | FIRE-FIGHTING MEASURES |
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EXTINGUISHING MEDIA

Appropriate extinguishing media: Carbon dioxide, foam, dry chemical and water fog. Water can be used to cool fire exposed containers. For large fires, use alcohol- or universal-type foams. Water jets should not be used

FIRE FIGHTING

Fire fighting instructions: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep the exposed containers cool. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

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Unusual fire hazards: None identified
Hazardous combustion products: Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Fumes, smoke, carbon monoxide, aldehydes and other decomposition products

FLAMMABILITY PROPERTIES

Flash point °C (°F) [method]: 435°F/ 224°C
Flammable limits (approx. Volume % in air) – not available
Autoignition temperature °C (°F): 1265°F/ 685°C

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| SECTION 6 | ACCIDENTAL RELEASE MEASURES |
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NOTIFICATION PROCEDURES: Report spills/releases to appropriate authorities as required.

CONTAINMENT/ CLEANUP

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

LAND SPILL: Shut off source taking normal safety precautions. Take measures to minimize the effects on ground water. Recover by pumping or contain spilled material with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of adsorbed residues as required by regulations (see Section 13.)

WATER SPILL: Confine the spill immediately with booms. Notify relevant authorities. Remove from the surface by skimming or with suitable absorbents

ENVIRONMENTAL PRECAUTIONS: Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

PERSONAL PROTECTIVE EQUIPMENT FOR SPILLS

Eyes: Use proper protection – safety glasses as a minimum

Skin: Washing at mealtime and end-of-shift is adequate

Inhalation: No respiratory protection should be needed

Precautionary measures: Avoid eye contact. Use reasonable care

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| SECTION 7 | HANDLING AND STORAGE |
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HANDLING

Avoid prolonged/ repeated skin contact. Use with adequate ventilation

STORAGE:

Keep containers closed when not in use. Do not store in open or unlabelled containers. Store in a cool, dry place; do not store near heat, sparks, flame or strong oxidants.

SPECIAL PRECAUTIONS

Prevent small spills and leakages to optimize housekeeping and avoid slip hazards.

EMPTY CONTAINER WARNING

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Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

STORAGE

Use reasonable care and store away from oxidizing materials

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| SECTION 8 | EXPOSURE CONTROLS/PERSONAL PROTECTION |
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EXPOSURE LIMIT VALUES

No workplace exposure limits have been established for this product

ENGINEERING CONTROLS

General ventilation is recommended. No local exhaust ventilation should be needed

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection:

No respiratory protection should be needed under recommended conditions of use

Hand Protection:

No special protection is needed

Eye Protection:

Use proper protection – safety glasses as a minimum

Specific Hygiene Measures:

Washing at mealtime and end-of-shift is adequate. Provide eyewash fountains in the event of accidental splash to the eyes

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| SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES |
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Typical physical and chemical properties are given below. Consult the Cannon Instrument Company as indicated in Section 1 for additional data.

GENERAL INFORMATION

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| Physical state: | Clear liquid |
| Form: | Liquid |
| Color: | clear colorless |
| Odor: | Characteristic odor |

This 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. The information and recommendations contained herein is compiled from suppliers' MSDS and are accurate and reliable to the best of Cannon Instrument Company's knowledge and belief as of the indicated revision date. No representation, warranty or guarantee, however, is made with regards to accuracy, reliability or completeness. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to determine the suitability and completeness of such information for any specific conditions/ use.

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Odor threshold: not available

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Specific Gravity @ 25°C: 0.8
Bulk density g/cc: not available
Density, kg/m³ (lbs./gal.): not available
Flash point °C (°F) [method]: 435°F/ 224°C
Flammable limits (approx. Volume % in air) - not available
Ignition temperature (polymers) °C (°F): not available
Autoignition temperature °C (°F): 1265°F/ 685°C
Boiling point/range °C (°F): 346°C (655 °F)
Vapor density @ 101 kPa (air =1): not available
Vapor pressure @ 20°C, kPa (mm Hg): <0.1 kPa (<1mmHg)
Evaporation rate (n-butyl acetate =1): not available
pH: not applicable
Log Pow (n-Octanol/water partition coefficient): not available
Solubility in water (20 °C): negligible
Viscosity: 17cSt @40 °C / 17 mm²/s

OTHER INFORMATION

Freezing point °C (°F): not available
Melting Point °C (°F): not available
Pour point °C (°F): -65°C (-85 °F)
Molecular weight: not available
Hygroscopic: no
Coefficient of thermal expansion: not determined

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| SECTION 10 | STABILITY AND REACTIVITY |
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STABILITY: Stable

CONDITIONS TO AVOID: Extreme heat and high energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizing agents/ materials can cause a reaction

HAZARDOUS DECOMPOSITION PRODUCTS: Product does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur

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| SECTION 11 | TOXICOLOGICAL INFORMATION |
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Information from suppliers indicates that the product is not classifiable as hazardous

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| SECTION 12 | ECOLOGICAL INFORMATION |
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Environmental fate and distribution

No specific environmental data are available for this product; this assessment is based on

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information for similar components/ products.

Air: This product has a low vapor pressure. As a result, it is unlikely to become an atmospheric contaminant under recommended conditions of use

Water: This product has low water solubility. Since it has a specific gravity of <1, if discharged to water, it will form a surface film. No specific ecological data are available from the supplier for this product

Soil: No specific ecological data are available from the supplier for this product

Degradation: No specific ecological data are available from the supplier for this product

Environmental effects

Toxicity to water organisms: No specific ecological data are available from the supplier for this product

Toxicity to soil organisms: No specific ecological data are available from the supplier for this product

Bioaccumulation: No specific ecological data are available from the supplier for this product

Fate and effects in water treatment plants

No specific data are available from the supplier for this product

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| SECTION 13 | DISPOSAL CONSIDERATIONS |
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When a decision is made to discard this material, it is not considered a hazardous waste under Resource Conservation and Recovery Act (RCRA).

State or local laws may impose additional regulatory requirements regarding disposal

WASTE DISPOSAL : Product is suitable for burning in an enclosed, controlled burner for fuel value. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

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| SECTION 14 | TRANSPORT INFORMATION |
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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.

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United States Department of Transportation (US DOT):

| UN/ID# | Proper Shipping Name | Class/Division | Hazard Label(s) | Packing Group |
|--|----------------------|----------------|-----------------|---------------|
| Not Regulated As A Hazardous Material Or Dangerous Good For This Mode of Transportation. | | | | |

International Air Transport Association (IATA):

| UN/ID# | Proper Shipping Name | Class/Division | Hazard Label(s) | Packing Group |
|--|----------------------|----------------|-----------------|---------------|
| Not Regulated As A Hazardous Material Or Dangerous Good For This Mode of Transportation. | | | | |

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING:

This product, and/ or its constituents, is listed on the US EPA/ TSCA (Toxic Substances Control Act) Inventory

COMMUNITY RTK:

| Chemical Name | CAS Number | Typical Value | Component TPQ | Product TPQ |
|--------------------|------------|---------------|----------------|----------------|
| Synthetic base oil | 68037-01-4 | 0-100% | Not applicable | Not applicable |

Section 304 CERCLA HAZARDOUS SUBSTANCES:

This product contains no chemicals that are classified as hazardous under CERCLA

SARA (311/312) REPORTABLE HAZARD CATEGORIES:

This product contains no chemicals that are classified as hazardous under SARA 312

SARA (313) TOXIC RELEASE INVENTORY:

This product contains no chemicals that are regulated under SARA 313

International chemical inventories and hazard classifications

This product and/ or its components are on the Canadian Domestic Substance List/ NDSL, or are otherwise in compliance with related regulations.

WHMIS Classifications (Canada):

This product is not controlled under WHMIS

This product and/ or its components are on EINECS (European Inventory of Existing Chemical

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Substances) and/ or ELINCS (European Library of Notified Chemical Substances), or is otherwise in conformance with related EU directives/ regulations.

EU Hazard Classification, risk and safety phrases (Europe):



Xn Harmful

R65: Harmful: may cause lung damage if swallowed

S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

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| SECTION 16 | OTHER INFORMATION |
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THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Summary:

- **October 15, 2005 -- This MSDS has been fully reviewed and reformatted to conform to changes in standard format**
- **February 27, 2007: Added Canadian and European classification and labeling information, based on current regulations and/or recommendations from suppliers (see Section 15)**
- **April 25, 2007: Updated and standardized format of Transport Information (see Section 14)**

NOTES: