

## Material Safety Data Sheet

CALFLO™/MC HTF

000003000597

Version 2.0

Revision Date 2015/03/27

Print Date 2015/08/26



## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CALFLO™/MC HTF  
Product code : CALHTFDRM, CALHTFDCT, CALHTF, CALHTFBLK

## Manufacturer or supplier's details

Petro-Canada Lubricants Inc.  
2310 Lakeshore Road West  
Mississauga ON L5J 1K2  
Canada

Emergency telephone number : Suncor Energy: +1 403-296-3000;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

## Recommended use of the chemical and restrictions on use

Recommended use : CALFLO HTF is a heat transfer fluid recommended for non-pressurized, liquid-phase, closed heat transfer systems.

Prepared by : Product Safety: +1 905-804-4752

## SECTION 2. HAZARDS IDENTIFICATION

## Emergency Overview

Appearance	viscous liquid
Colour	Colourless to light yellow.
Odour	Mild petroleum oil like.

## Potential Health Effects

Primary Routes of Entry : Eye contact  
Ingestion  
Inhalation  
Skin contact

Aggravated Medical Condition : None known.

## Carcinogenicity:

## IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

## ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components  
No hazardous ingredients

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## SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.  
Artificial respiration and/or oxygen may be necessary.  
Seek medical advice.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Wash clothing before reuse.  
Seek medical advice.
- In case of eye contact : Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.
- If swallowed : Rinse mouth with water.  
**DO NOT** induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
Seek medical advice.
- Most important symptoms and effects, both acute and delayed : First aider needs to protect himself.

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## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.
- Specific hazards during firefighting : Cool closed containers exposed to fire with water spray.

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| Hazardous combustion products | : Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ), smoke and irritating vapours as products of incomplete combustion. |
| Further information           | : Prevent fire extinguishing water from contaminating surface water or the ground water system.  |

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

- |   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.<br>Avoid breathing dust.<br>Ensure adequate ventilation.<br>Evacuate personnel to safe areas.<br>Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).<br>Material can create slippery conditions. |
| Environmental precautions   | : Do not allow uncontrolled discharge of product into the environment.  |
| Methods and materials for containment and cleaning up               | : Prevent further leakage or spillage if safe to do so.<br>Remove all sources of ignition.<br>Soak up with inert absorbent material.<br>Non-sparking tools should be used.<br>Ensure adequate ventilation.<br>Contact the proper local authorities.   |

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## SECTION 7. HANDLING AND STORAGE

- |                             |   |
|-----------------------------|---|
| Advice on safe handling     | : For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Use only with adequate ventilation.<br>In case of insufficient ventilation, wear suitable respiratory equipment.<br>Avoid contact with skin, eyes and clothing.<br>Do not ingest.<br>Keep away from heat and sources of ignition.<br>Keep container closed when not in use. |
| Conditions for safe storage | : Store in original container.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage.<br>Keep in a dry, cool and well-ventilated place.<br>Keep in properly labelled containers.<br>To maintain product quality, do not store in heat or direct sunlight.   |

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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## Components with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

## Personal protective equipment

**Respiratory protection** : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Filter type** : organic vapour filter

**Hand protection**  
**Material** : neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R).

**Remarks** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Eye protection** : Wear face-shield and protective suit for abnormal processing problems.

**Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Protective measures** : Wash contaminated clothing before re-use.  
No special protective equipment required.

**Hygiene measures** : Remove and wash contaminated clothing and gloves, including the inside, before re-use.  
Wash face, hands and any exposed skin thoroughly after handling.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : viscous liquid

**Colour** : Colourless to light yellow.

**Odour** : Mild petroleum oil like.

**Odour Threshold** : No data available

**pH** : No data available

**Pour point** : -18 °C (-0.40 °F)

**Boiling point/boiling range** : No data available

**Flash point** : 211 °C (412 °F)

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Method: Pensky-Martens closed cup

Auto-Ignition Temperature	: 350 °C (662 °F)
Evaporation rate	: No data available
Flammability	: Low fire hazard. This material must be heated before ignition will occur.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 0.8655 kg/l (15 °C / 59 °F)
Solubility(ies)	
Water solubility	: Insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity	
Viscosity, kinematic	: 35.2 cSt (40 °C / 104 °F) 5.69 cSt (100 °C / 212 °F)
Explosive properties	: Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

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## SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	: No data available
Incompatible materials	: Reactive with oxidising agents, acids and alkalis.
Hazardous decomposition products	: May release COx, SiOx, aldehydes, smoke and irritating vapours when heated to decomposition.

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## SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Eye contact Ingestion Inhalation Skin contact
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## Acute toxicity

### Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

## Skin corrosion/irritation

### Product:

Remarks: No data available

## Serious eye damage/eye irritation

### Product:

Remarks: No data available

## Respiratory or skin sensitisation

No data available

## Germ cell mutagenicity

No data available

## Carcinogenicity

No data available

## Reproductive toxicity

No data available

## STOT - single exposure

No data available

## STOT - repeated exposure

No data available

## Aspiration toxicity

No data available

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

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Toxicity to bacteria

: Remarks: No data available

Persistence and degradability

**Product:**

Biodegradability

: Remarks: No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues

: The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

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## SECTION 14. TRANSPORT INFORMATION

### International Regulation

#### IATA-DGR

Not regulated as a dangerous good

#### IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### 49 CFR

Not regulated as a dangerous good

#### TDG

Not regulated as a dangerous good

Special precautions for user

Not applicable

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## SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : Not Rated

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**The components of this product are reported in the following inventories:**

<b>DSL</b>	On the inventory, or in compliance with the inventory
<b>TSCA</b>	All chemical substances in this product are either listed on the TSCA inventory or are in compliance with a TSCA inventory exemption.
<b>IECSC</b>	On the inventory, or in compliance with the inventory
<b>EINECS</b>	On the inventory, or in compliance with the inventory

## SECTION 16. OTHER INFORMATION

**For Copy of (M)SDS** : The Canadian Controlled Products Regulations (CPR) (Under the Hazardous Products Act, part of the WHMIS legislation) only apply to WHMIS Controlled (i.e., hazardous) products. Therefore, the CPR and the 3-year update rule specified therein do not apply to WHMIS Non-Controlled products. Although this is true, customarily Petro-Canada reviews and updates Non-Controlled product MSDS if a customer requests such an update. These Non-Controlled product updates are given a lower priority than Controlled products but are handled as soon as practicable. If you would like to verify if the MSDS you have is the most current, or you require any further information, please contact:  
Internet: [lubricants.petro-canada.ca/msds](http://lubricants.petro-canada.ca/msds)  
Western Canada, telephone: 1-800-661-1199; fax: 1-800-378-4518  
Ontario & Central Canada, telephone: 1-800-268-5850; fax: 1-800-201-6285  
Quebec & Eastern Canada, telephone: 1-800-576-1686; fax: 1-800-201-6285  
For Product Safety Information: 1 905-804-4752

**Prepared by** : Product Safety: +1 905-804-4752

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.



# MATERIAL SAFETY DATA SHEET

## PART I

ADAPTED FROM USDL

FORM NO. LSB-005-4

INFORMATION ON THIS FORM IS FURNISHED SOLELY FOR THE PURPOSE OF COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.

### SECTION I

MFG NAME: **CHEMURGY PRODUCTS, INC**

REVISION DATE: **July 01, 2013**

ADDRESS: **450 FURMAN HALL ROAD GREENVILLE, SC 29609**

REPLACES: **12/1/2005**

PHONE NO.: **864-232-7697**

TRADE NAME: **Proclean 1800**

PROD CODE: **C1531801**

CHEM FAMILY: **Industrial Cleaner**

FORMULA: **Proprietary**

HMIS RATING

HEALTH: **0**

FIRE: **0**

REACTIVITY: **0**

### SECTION II HAZARDOUS INGREDIENTS

COMPOSITION	%	CAS NO.	TLV PPM	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>
Dipropylene Glycol Methyl Ether	5	34590-94-8	100	5.4 g/kg (rat)	20 mg/kg (rabbit)

### SECTION III PHYSICAL DATA

BOILING POINT: **>100 deg C**

SPEC GRAVITY: **1**

VAPOR PRESSURE: **<20 Torr**

% VOLATILE: **Not Established**

VAPOR DENSITY: **Unknown**

EVAP. RATE: **Unknown**

SOL IN WATER: **Complete**

ETHYL ETHER 41

APPEARANCE: **Clear Blue liquid**

### SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH PT.: **Nonflammable**

FLAM LIMITS: **N/A**

EXTIN MEDIA: **Water fog, Dry Chemical, Foam, CO2**

AUTOIGN. TEMP:

SPECIAL FIRE FIGHTING PROCEDURES 43: **Use SCBA as for any chemical fire. Drums may erupt due to extreme heat.**

UNUSUAL FIRE AND EXPLOSION HAZARDS: **None Expected**

**SECTION V HEALTH HAZARD**

PAGE2

THRESHOLD LIMIT VALUE See ingredient information above.

EFFECTS OF OVEREXPOSURE May cause skin irritation or rash upon prolonged contact

EMERGENCY PROCEDURES For skin or eye contact, flush with water for 15 minutes. For inhalation, move to fresh air. Get medical attention if necessary.

**SECTION VI REACTIVITY DATA****STABILITY**

UNSTABLE

STABLE

X

CONDITIONS TO AVOID

None Known

**MATERIALS TO AVOID**

Strong acids.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Oxides of Carbon

**HAZARDOUS****POLYMERIZATION**

MAY OCCUR

WILL NOT OCCUR

X

CONDITIONS TO AVOID

None known

**SECTION VII SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Take up with absorbant material. For large spills, prevent from entering sewers or waterways.

**WASTE DISPOSAL METHOD**

Dispose of in accordance with all regulations.

**SECTION VIII SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION(TYPE) General ventilation usually adequate.

VENTILATION MECHANICAL

SPECIAL

LOCAL EXHAUST: May be required to maintain below TLV

OTHER:

GLOVES: Long rubber gloves

EYE PROTECTION: Chemical goggles

OTHER EQUIPMENT: Eye wash station and chemical shower in vicinity of use.

**SECTION IX SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Practice good housekeeping, wash hands and store in accordance with generally accepted practices.

OTHER PRECAUTIONS