

SAFETY DATA SHEET

PURITY™ FG SPRAY



1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : PURITY™ FG SPRAY

Code : PFMF

Synonyms : Purity FG MF Lubricant

Use of the substance/mixture : Purity FG Spray is an advanced multipurpose food grade lubricant in an aerosol can.

NSF H1 Registered.

All components comply with FDA 21 CFR 178.3570 "Lubricants with Incidental Food Contact". It is intended for application on industrial and food equipment. It should not be added directly to the food product.

Company/undertaking identification

Manufacturer : Petro-Canada Lubricants Inc.
2310 Lakeshore Road West
Mississauga, Ontario
Canada L5J 1K2

Supplier : Petro-Canada Europe Lubricants
The Manor
Haseley Business Centre
Warwick, Warwickshire
CV35 7LS
United Kingdom
Tel: +44 (0) 2476-247294
Fax: +44 (0) 2476-247295

Emergency telephone number : Suncor Energy: (001) 403-296-3000
Canutec Transportation: (001) 613-996-6666
Poison Control Centre: Consult local telephone directory for emergency number(s).

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : F+; R12

Physical/chemical hazards : Extremely flammable.

See section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Preparation

Ingredient name	CAS number	%	EC number	Classification
Mixture of severely hydrotreated and hydrocracked base oil (petroleum).	Mixture	-	Mixture	Not classified. [2]
CFC free propellant containing: (Liquefied Petroleum Gas)	68476-85-7	30	270-704-2	F+; R12 [2]
Isobutane	75-28-5	50.3	203-448-7	F+; R12 [2]
Propane	74-98-6	49.7	200-827-9	F+; R12 [2]
See section 16 for the full text of the R-phrases declared above				

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in section 8.

4. FIRST AID MEASURES

First-aid measures

- | | |
|-----------------------------------|--|
| Inhalation | : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Ingestion | : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |
| Notes to physician | : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |

See section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media

- | | |
|---|---|
| Suitable | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Not suitable | : Do not use water jet. |
| Special exposure hazards | : Extremely flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| Products of combustion | : Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), sulphur oxides (SO _x), phosphorus oxides (PO _x), carbonyl halides, smoke and irritating vapours as products of incomplete combustion. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| Remark | : Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Container explosion may occur under fire conditions or when heated. Ruptured cylinders may rocket. |

6. ACCIDENTAL RELEASE MEASURES

- | | |
|----------------------------------|---|
| Personal precautions | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). |
| Environmental precautions | : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

Methods for cleaning up

6. ACCIDENTAL RELEASE MEASURES

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
- Packaging materials**
- Recommended** : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Mixture of severely hydrotreated and hydrocracked base oil (petroleum).	ACGIH TLV (United States). Notes: (oil mist) TWA: 5 mg/m ³ 8 hour(s). STEL: 10 mg/m ³ 15 minute(s).
Isobutane	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s).
Propane	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s).

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure controls

- Occupational exposure 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. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. Recommended: organic vapour filter
- Hand protection** : 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.
Recommended: neoprene, nitrile, polyvinyl alcohol (PVA), Viton.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

- Physical state** : Aerosol, stored under pressure.
- Colour** : Purity Oil is clear and bright.
- Odour** : Hydrocarbon or petroleum oil like.

Important health, safety and environmental information

- Flash point** : Propellant: Closed cup: -104 to -73°C (-155.2 to -99.4°F) [Tagliabue.]
- Explosion limits** : Propellant:
Lower: 1.4%
Upper: 9.5%
- Relative density** : Purity Oil: 0.862 kg/L @ 15°C (59°F)
- Solubility** : Insoluble in water.
- Viscosity** : Purity Oil: 151 cSt @ 40°C (104°F), 19.8 cSt @ 100°C (212°F), VI=150
- Pour point** : Purity Oil: -12°C (10°F)

10. STABILITY AND REACTIVITY

- Chemical stability** : The product is stable.
- Materials to avoid** : Reactive with oxidising agents, reducing agents, acids, alkalis, liquid oxygen and alkali metals and their hydroxides.
- Hazardous decomposition products** : May release COx, NOx, SOx, POx, carbonyl halides, smoke and irritating vapours when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

- Inhalation** : At high concentrations, the propellant is a simple asphyxiant and displaces oxygen from the breathing atmosphere. Lack of oxygen may cause CNS depression characterized by dizziness, headaches, nausea, vomiting, fatigue, light-headedness and reduced coordination. Severe overexposure may lead to a coma and/or possible death. Prolonged or repeated inhalation of mist or vapours may cause irritation of the respiratory tract.
- Ingestion** : No known significant effects or critical hazards.

11. TOXICOLOGICAL INFORMATION

Skin contact : May cause skin irritation.

Eye contact : May cause eye irritation.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Mixture of severely hydrotreated and hydrocracked base oil (petroleum).	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation	Rat	>5.2 mg/l	4 hours
	Dusts and mists			
Isobutane	LC50 Inhalation	Rat	658000 mg/m³	4 hours
	Gas.			

Conclusion/Summary : Not available.

Potential chronic health effects

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : Not listed as carcinogenic by OSHA, NTP or IARC.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin : No specific data.

Eyes : No specific data.

12. ECOLOGICAL INFORMATION

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary : Not available.

Other ecological information

Biodegradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Isobutane	2.76	-	low

Other adverse effects : No known significant effects or critical hazards.




13. DISPOSAL CONSIDERATIONS

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	UN1950	AEROSOLS	2.1	-		CEPIC Tremcard 20G53, 1950
ADN/ADNR Class	Not available.	Not available.	Not available.	-		-
IMDG Class	UN1950	AEROSOLS	2.1	-		-
IATA Class	UN1950	Aerosols, flammable	2.1	-		Passenger and Cargo Aircraft Quantity limitation: 75 kg Cargo Aircraft Only Quantity limitation: 150 kg Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg

PG* : Packing group

15. REGULATORY INFORMATION

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols :



Extremely flammable

Risk phrases

Safety phrases

- : R12- Extremely flammable.
- : S2- Keep out of the reach of children.
- : S9- Keep container in a well-ventilated place.
- : S16- Keep away from sources of ignition - No smoking.
- : S46- If swallowed, seek medical advice immediately and show this container or label.

Other EU regulations

International regulations

Canada inventory

: All components are listed or exempted.

United States inventory (TSCA 8b)

: All components are listed or exempted.

Europe inventory

: All components are listed or exempted.

International lists

: **China inventory (IECSC)**: All components are listed or exempted.

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe : R12- Extremely flammable.

Full text of classifications referred to in sections 2 and 3 - Europe : F+ - Extremely flammable

Key data sources : Available upon request.
™ Trademark of Suncor Energy Inc. Used under licence.

History

Date of printing : 7/5/2010.

Date of issue/ Date of revision : **5 July 2010**

Date of previous issue : **2/25/2009.**

Prepared by : **Product Safety - JDW**

▣ Indicates information that has changed from previously issued version.

For Copy of (M)SDS : Internet: lubricants.petro-canada.ca/msds

Lubricants:

Western Canada, telephone: (001) 800-661-1199; fax: (001) 800-378-4518

Ontario & Central Canada, telephone: (001) 800-268-5850; fax: (001) 800-201-6285

Quebec & Eastern Canada, telephone: (001) 800-576-1686; fax: (001) 800-201-6285

For Product Safety Information: (001) 905-804-4752

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.