Safety Data Sheet

Section 1 Product and Company Identification

Common Name Fluorolube FS 5	**Product Model Number** FLUOR
Product File Number 920:405-FLUOR-9	**Product Use** Fill Fluid
Manufacturer's Name Gabriel Performance Products, LLC	**Emergency Phone Numbers** 1-800-255-3924 (US), + 01 813 248 0585 (International)
Address 10920 Madison Ave.	**Engineering Control Data** MSDS - A35810, Rev. N, EO 7519 Drawing – A34042
City, State, Zip Cleveland, Ohio 44102	**Date Prepared** 13-Nov-2015

Section 2 Hazards Identification

OSHA/HICS status:	• While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the Safe handling and proper use of the product. • This SDS should be retained and available for employees and other users of this product.
Classification of the Substance or mixture:	Not classified.

GHS label elements

Signal word:	No signal word.
Hazard statements:	No known significant effects or critical hazards.

Precautionary statements

General:	• Read label before use. • Keep out of reach of children. • If medical advice is needed, have product container or label at hand.
Prevention:	Not applicable.
Response:	Not applicable.

Storage:	Not applicable.
Disposal:	Not applicable.
Hazards not otherwise classified:	None known.

Section 3 Composition/Information on Ingredients

Substance/mixture:	Substance.
Chemical name:	Chlorotrifluoroethylene Polymer
Other means of Identification:	Not applicable.

CAS number/other identifiers

CAS number:	9002-83-9
Product code:	Not applicable.

United States

Ingredient name	%	CAS number
Ethene, 1-chloro-1,2,2-trifluoro-,homoploymer	100	9002-83-9

Canada

Name	%	CAS number
Ethene, 1-chloro-1,2,2-trifluoro-,homopolymer	100	9002-83-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation. 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.

Occupational exposure limits, if available, are listed in ***Section 8***.

Section 4 First Aid Measures

Eye contact:

- Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
- Check for and remove any contact lenses.
- Get medical attention if irritation occurs.

Inhalation:

- Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Get medical attention if symptoms occur.

Skin contact:

- Flush contaminated skin with plenty of water.
- Get medical attention if symptoms occur.

Ingestion:

- Wash out mouth with water.
- Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.
- Do not induce vomiting unless directed to do so by medical personnel.
- Get medical attention if symptoms occur.

Most important symptoms/effects: Acute and delayed

Potential acute health effects

Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	• Treat symptomatically. • Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	No specific treatment.
Protection of First – aiders:	No action shall be taken involving any personal risk without suitable training.

See toxicological information (***Section 11***).

Section 5 Fire Fighting Measures

Extinguishing media

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	• Fluorolubes decompose and depolymerize above 500 °F. • Decomposition products may be toxic and hazardous. • Avoid friction or galling in contact with aluminum or magnesium parts. • Friction or galling can cause localized areas of instantaneously high pressure and temperature, which may result in localized detonation. • See Stability and Reactivity (***Section 10***).
Hazardous thermal decomposition products:	Decomposition products may include the following materials: • Carbon dioxide. • Carbon monoxide. • Halogenated compounds.
Special protective actions for fire-fighters:	No special measures are required.
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.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

- No action shall be taken involving any personal risk or without suitable training.
- Keep unnecessary and unprotected personnel from entering.
- Do not touch or walk through spilled material.
- Put on appropriate personal protective equipment.

For emergency responders:

- If specialized clothing is required to deal with spillage, take note of any Information in ***Section 8*** on suitable and unsuitable materials.
- See also the Information in ***For non-emergency personnel***.

Environmental precautions :

- Avoid dispersal of spilled 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 and materials for containment and cleaning up

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.
- Dispose of via a licensed waste disposal contractor.

Large Spill:

- Stop leak if without risk.
- Move containers from spill area.
- 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, for example, sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (***See Section 13***).
- Dispose of via a licensed waste disposal contractor.

Note: See *Section 1* for emergency contact information and *Section 13* for waste disposal.

Section 7 Handling and Storage

Precautions for safe handling

Protective measures:	Put on appropriate personal protective equipment (see ***Section 8***).
Advice on general occupational hygiene	• 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. • See also ***Section 8*** for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities:	• Store in accordance with local regulations. • 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. • 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 unlabeled containers. • Use appropriate containment to avoid environmental contamination.

Section 8 Exposure Controls/Personal Protection

Control parameters

United States **Occupational exposure limits:**	None.
Canada **Occupational exposure limits:**	No exposure limit value known.
Appropriate engineering controls:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures	• Wash hands, forearms, and face thoroughly after handling chemical products, before eating, drinking and smoking and using the lavatory and at the end of the working period. • Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face 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, gases and dusts. • If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

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.
Body 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.
Other Skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	• Use a properly fitted, air-purifying or supplied air 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.

Section 9 Physical and Chemical Properties

Appearance

Physical state:	Liquid. [Oil.]
Color:	Translucent.
Odor:	Not available.
Odor threshold:	Not available.
pH:	6 to 7.5
Melting point:	67.8 °C to 18.3 °C (–90 °F to 64.9 °F)
Boiling point:	Not available.
Flash point:	Not available.
Burning time:	Not applicable.
Burning rate:	Not applicable.
Evaporation rate:	Not available.
Flammability (solid, gas) :	Not available.
Lower and upper explosive (flammable) limits:	Not available.
Vapor pressure:	0.0093 kPa to 0.29 kPa (0.07 mmHg to 2.2 mmHg) [93 °C (200 °F)]
Vapor density:	Not available.
Relative density:	1.87 to 1.96 (Refer to the TDS for specifics on each grade.)
Solubility:	Not available.
Solubility in water:	Not available.
Partition coefficient octanol/water:	Not available.
Autoignition temperature	Not available.
Decomposition temperature	> 260 °C (> 500 °F)
SADT	Not available.
Viscosity	Refer to the TDS for specifics on each grade.

Section 10 Stability and Reactivity

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	• Do not use on aluminum or magnesium parts when heavy friction or galling can occur. • Detonation can occur when Fluorolube is allowed to contact aluminum or magnesium, free of its oxide coating, in confined spaces and under heavy loads or high pressure.
Incompatible materials:	Reacts violently with sodium, potassium, amines, liquid fluorine, liquid Chlorine trifluoride.
Hazardous decomposition products:	Decomposes when heated above 500 °F, releasing hazardous decomposition products including hydrogen fluoride, hydrogen chloride, chlorotrifluoroethylene and other toxic organic fluorine compounds.

Section 11 Toxicological Information

Information on toxicological effects

Acute toxicity	There is no data available.

Irritation/Corrosion

Skin	There is no data available.
Eyes	There is no data available.
Respiratory	There is no data available.

Sensitization

Skin	There is no data available.
Respiratory	There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity – single exposure	There is no data available.

Specific target organ toxicity – repeated exposure	There is no data available.

Aspiration hazard	There is no data available.
Information on the likely routes of exposure:	• Dermal contact. • Eye contact. • Inhalation. • Ingestion.

Potential acute health effects

Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure	
Potential immediate Effects:	No known significant effects or critical hazards.
Potential delayed effects:	No known significant effects or critical hazards.

Long term exposure	
Potential immediate Effects:	No known significant effects or critical hazards.
Potential delayed effects:	No known significant effects or critical hazards.

Potential chronic health effects	
General:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
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.

Numerical measures of toxicity	
Acute toxicity estimates:	There is no data available.

Section 12 Ecological Information

Toxicity:	There is no data available.
Persistence and degradability:	There is no data available.
Bioaccumulative potential:	There is no data available.
Mobility in soil:	
Soil/water partition Coefficient (Koc):	Not available.
Other adverse effects:	No known significant effects or critical hazards.

Section 13 Disposal Considerations

Disposal methods:

- The generation of waste should be avoided or minimized wherever possible.
- Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
- Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Waste packaging should be recycled.
- Incineration or landfill should only be considered when recycling is not feasible.
- This material and its container must be disposed of in a safe way.
- Empty containers or liners may retain some product residues.
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14 Transport Information

	DOT/TDG Classification	IMDG	IATA
UN number:	Not Regulated.	Not Regulated.	Not Regulated.
UN proper shipping name:	—	—	—
Transport hazard class:	—	—	—
Packing group:	—	—	—
Environmental hazards:	No	No	No
Additional information:	—	—	—

AERG: Not available.

Special precautions for user:

- Transport within user's premises: always transport in closed containers that are upright and secure.
- Ensure that people transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not available.

Section 15 Regulatory Information

United States

U.S. Federal regulations:	• **TSCA 8(a) CDR Exempt/Partial exemption:** All components are listed or exempted. • **United States Inventory (TSCA 8b):** All components are listed or exempted
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs):	Not listed.
Clean Air Act Section 602 Class I Substances:	Not listed.
Clean Air Act Section 602 Class II Substances:	Not listed.
DEA List I Chemicals (Precursor Chemicals):	Not listed.
DEA List II Chemicals (Essential Chemicals):	Not listed.
SARA 302/304 composition/information on ingredients:	No products were found.
SARA 304 RQ:	Not applicable.
SARA 311/312 Classification:	Not applicable.
Composition/information on ingredients:	No products were found.

State Regulations

Massachusetts:	None of the components are listed.
New York:	None of the components are listed.
New Jersey:	None of the components are listed.
Pennsylvania:	None of the components are listed.
California Prop. 65:	No products were found.

Canada

WHMIS (Canada):	Not controlled under WHMIS (Canada).
Canadian lists	
Canadian NPRI	None of the components are listed.
CEPA Toxic substances	None of the components are listed.
Canada inventory	All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

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International regulations

International lists	
Australia inventory (AICS):	All components are listed or exempted.
China inventory (IECSC):	All components are listed or exempted.
Japan inventory:	All components are listed or exempted.
Korea inventory:	All components are listed or exempted.
Malaysia inventory (EHS Register):	Not determined.
New Zealand inventory of Chemicals (NZIoC):	All components are listed or exempted.
Philippines inventory (PICCS):	All components are listed or exempted.
Taiwan inventory (CSNN):	Not determined.
Chemical Weapons Convention List Schedule I Chemicals	Not listed.
Chemical Weapons Convention List Schedule II Chemicals	Not listed.
Chemical Weapons Convention List Schedule III Chemicals	Not listed.

Section 16 Other Information

Key to abbreviations

GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA	International Air Transport Association.
IBC	Intermediate Bulk Container.
IMDG	International Maritime Dangerous Goods.
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978. (“Marpol” = marine pollution)
UN	United Nations

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