



SAFETY DATA SHEET

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Revision Number: 1

1. COMPANY AND PRODUCT IDENTIFICATION

Product identifier

Product Name: CHRISTO-LUBE 5170A
Product code: 016485-01

Other means of identification

Synonyms No information available

Application

Recommended Use Lubricating Grease
Uses advised against For industrial use only

Supplier/Manufacturer:

Supplier:
ENGINEERED CUSTOM LUBRICANTS (ECL)
3851 Exchange Avenue
Aurora, IL 60504 USA
Phone: (630)449-5000
Email: she@quakerchem.com

Emergency telephone number:

* 24 HOUR TRANSPORTATION:
**CHEMTREC: 1-800-424-9300
+703-527-3887 (Call collect outside of US)
* 24 HOUR EMERGENCY HEALTH & SAFETY:
**QUAKER CHEMICAL CORPORATION: (800) 523-7010
(Within US only) Outside of US call (703) 527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|-------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Chronic aquatic toxicity | Category 4 |

Label Elements

Emergency Overview

WARNING

Hazard Statements

Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
May cause long lasting harmful effects to aquatic life



Appearance White

Physical State Semi-Solid

Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Avoid release to the environment

Precautionary Statements - Response

Specific treatment (see First Aid on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known

Other Information

None known.

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS No | Weight % |
|----------------------------------|----------|----------|
| Perfluoro 2-butyltetrahydrofuran | 335-36-4 | 60 - 70% |
| Perfluoroheptane | 335-57-9 | 20 - 30% |

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

| | |
|--|--|
| General advice: | Show this safety data sheet to the doctor in attendance. Remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Wash off with soap and water. If symptoms persist, call a physician |
| Eye contact: | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
| Skin contact: | Remove and wash contaminated clothing before re-use. Wash off immediately with soap and plenty of water. |
| Ingestion: | If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person |
| Inhalation: | Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician. |
| Note to physician: | Treat symptomatically. |
| Medical condition aggravated by exposure: | None known. |

5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Suitable extinguishing media: | Use dry chemical, CO ₂ , water spray or `alcohol` foam. |
| Specific hazards: | Do not allow material to contaminate ground water system. |
| Special protective equipment for fire-fighters: | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |
| Specific methods: | Water mist may be used to cool closed containers |

6. ACCIDENTAL RELEASE MEASURES

| | |
|-----------------------------------|---|
| Personal precautions: | Ensure adequate ventilation. Do not breathe vapour/dust. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. |
| Environmental precautions: | Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up: | Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. |

7. HANDLING AND STORAGE

Handling

| | |
|--|---|
| Technical measures/precautions: | Provide sufficient air exchange and/or exhaust in work rooms. |
|--|---|

Safe handling advice: In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe vapors or spray mist. Wear personal protective equipment. Avoid contact with skin and eyes. Wash thoroughly after handling.

Storage

Technical measures/storage conditions: Store at room temperature in the original container.

Incompatible products: Strong oxidizing agents

Safe storage temperature: 40 - 100 ° F

Shelf life: 60 months

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines . This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering measures: Ensure adequate ventilation

Personal Protective Equipment:

General: Eye Wash and Safety Shower

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a NIOSH-certified respirator with organic vapor/P100 filter should be worn.

Eye protection: Safety glasses with side-shields

Hand protection: Neoprene gloves

Skin and body protection: Long sleeved clothing

Hygiene measures: Avoid contact with skin, eyes and clothing.



9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------|--------------------------|
| Physical State | Semi-Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |

| | |
|---|--------------------------|
| pH concentrate: | No information available |
| pH Dilution | No information available |
| Melting/freezing point | No information available |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Method | No information available |
| Evaporation rate | No information available |
| Flammability Limits in Air | |
| upper flammability limit | No information available |
| lower flammability limit | No information available |
| VOC Content Product (lb/gal) | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Specific Gravity (g/cc, 15 C) | 1.5 |
| Water Solubility | Insoluble |
| Solubility in other solvents | No information available |
| Partition coefficient: n-octanol/water | No information available |
| Autoignition temperature | No information available |
| Decomposition Temperature | No information available |
| Kinematic viscosity | No information available |
| Dynamic viscosity | No information available |
| Molecular Weight | No information available |

10. STABILITY AND REACTIVITY

| | |
|--|--|
| Stability: | Stable under recommended storage conditions. |
| Conditions to avoid: | None known. |
| Materials to avoid: | Strong oxidizing agents. |
| Hazardous decomposition products: | Carbon oxides. Thermal decomposition of this product will generate gaseous hydrogen fluoride (HF), which is corrosive and can cause burns and other fluorinated compounds. |
| Hazardous Polymerization: | Not applicable. |

11. TOXICOLOGICAL INFORMATION

No toxicological information is available on the product. Data obtained on components are summarized below.

Information on likely routes of exposure

| | |
|---------------------|---|
| Inhalation | May cause irritation of respiratory tract. |
| Eye Contact | Irritating to eyes. |
| Skin Contact | Irritating to skin. |
| Ingestion | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

| Components | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------------------------|-----------|-------------|-----------------|
| Perfluoro 2-butyltetrahydrofuran | - | - | - |
| Perfluoroheptane | - | - | - |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

| Components | IARC Carcinogens | NTP | OSHA - Select Carcinogens |
|----------------------------------|------------------|------------|---------------------------|
| Perfluoro 2-butyltetrahydrofuran | Not listed | Not listed | Not listed |
| Perfluoroheptane | Not listed | Not listed | Not listed |

Sensitization No information available.

Mutagenic effects: No information available.

Reproductive Toxicity No information available.

Developmental Toxicity No information available.

Teratogenic No information available.

Specific target organ systemic toxicity (single exposure) No information available.

Specific target organ systemic toxicity (repeated exposure) No information available.

Aspiration hazard No information available.

Additional information on toxicological effects

No information available

12. ECOLOGICAL INFORMATION

| Components | Ecotoxicity - Fish Species | Ecotoxicity - Freshwater | Ecotoxicity - Water Flea |
|------------|----------------------------|--------------------------|--------------------------|
|------------|----------------------------|--------------------------|--------------------------|

| | Data: | Algae Data: | Data: |
|----------------------------------|---------|-------------|---------|
| Perfluoro 2-butyltetrahydrofuran | No data | No data | No data |
| Perfluoroheptane | No data | No data | No data |

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and Degradability No information available.

Bioaccumulation No information available.

| Components | Octanol/water partition coefficient |
|----------------------------------|-------------------------------------|
| Perfluoro 2-butyltetrahydrofuran | - |
| Perfluoroheptane | - |

Mobility: No data available

Ozone: No data available

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging: Do not re-use empty containers

Methods for cleaning up: Take up mechanically and collect in suitable container for disposal.

14. TRANSPORT INFORMATION

U. S. DEPARTMENT OF TRANSPORTATION:

Proper shipping name: Not Regulated

TDG (CANADA):

Proper shipping name: Not Regulated

IMDG/IMO:

Proper shipping name: Not Regulated

IATA/ICAO:

Proper shipping name: Not Regulated

15. REGULATORY INFORMATION

Federal Regulations

OSHA Hazard Communication Standard: This product is considered to be hazardous under the OSHA Hazard Communication Standard.

CERCLA/SARA Information:

SARA (311, 312) hazard class: This product possesses the following SARA Hazard Categories:

Immediate Health (Acute): Yes
Delayed Health (Chronic): No
Flammability: No
Pressure: No
Reactivity: No

| Components | Hazardous Substances and RQs | Extremely Hazardous Substances and TPQs | SARA 313 Emission Reporting |
|----------------------------------|------------------------------|---|-----------------------------|
| Perfluoro 2-butyltetrahydrofuran | Not listed | Not listed | Not listed |
| Perfluoroheptane | Not listed | Not listed | Not listed |

Clean Air and Clean Water Acts:

| Components | Hazardous Air Pollutants | CWA - Hazardous Substances | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|----------------------------------|--------------------------|----------------------------|------------------------|---------------------------|
| Perfluoro 2-butyltetrahydrofuran | Not listed | Not listed | Not listed | Not listed |
| Perfluoroheptane | Not listed | Not listed | Not listed | Not listed |

U.S. STATE REGULATIONS (RTK):

| Components | California Proposition 65 | PARTK | MI Critical Materials | NJRTK | MARTK |
|----------------------------------|---------------------------|------------|-----------------------|------------|------------|
| Perfluoro 2-butyltetrahydrofuran | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed |
| Perfluoroheptane | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed |

California Proposition 65 Status: No components are listed

RCRA Status: Not regulated

CANADIAN REGULATIONS:

| Components | CEPA Schedule I | Challenge Substances |
|----------------------------------|-----------------|----------------------|
| Perfluoro 2-butyltetrahydrofuran | Not listed | Not listed |
| Perfluoroheptane | Not listed | Not listed |

INVENTORY STATUS:

United States TSCA Inventory: This product complies with TSCA

Canada DSL/NDSL Inventory List At least one component is not listed on the DSL or NDSL

16. OTHER INFORMATION

Sources of key data used to compile Material safety data sheets of the ingredients.
the data sheet:

Prepared by: Quaker Chemical Corporation -Safety, Health and Environmental Affairs Group - US

Revision Date: 01/11/2017

Reason for revision: New formulation.

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

Disclaimer

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. The company referenced in this Safety Data Sheet assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of such company.

End of Safety Data Sheet