

SAFETY DATA SHEET

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: TFL50® DRY LUBE
(Product #60133)

Product Use: Dry Lubricant

MANUFACTURER/DISTRIBUTOR:

Quivala Inc.
1643-B Savannah Hwy, #143
Charleston, S.C.
USA 29407
514-992-9131

Emergency Phone Number:
(800) 424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

Flammable Aerosol: Category 2
Gases under pressure – Liquefied Gas
Skin corrosion/irritation: Category 2
Aspiration Hazard: Category 1
Specific target organ toxicity - single exposure: Category 3
Hazardous to the aquatic environment, acute hazard: Category 2
Hazardous to the aquatic environment, long-term hazard: Category 3

Label elements:

Signal word

Danger

Pictograms



Hazard Statements

Flammable aerosol
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways
Causes skin irritation.
May cause drowsiness or dizziness.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects

Precautionary Statements

Keep away from heat/sparks/open flames/hot surfaces – No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container. Do not pierce or burn, even after use.

Avoid breathing mist/vapors/spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Dispose of contents/container to an approved waste disposal plant in accordance with local, regional, or international regulations.

3. INGREDIENTS

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
1,1,1,2-Tetrafluoroethane	811-97-2	65 – 75
Heptane	142-82-5	16 – 22
Isopropyl Alcohol	67-63-0	8 – 12

4. FIRST AID MEASURES

Inhalation: Remove patient to fresh air immediately and keep at rest in a position comfortable for breathing. Get medical attention immediately.

Eye: Flush with large amounts of water immediately, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue to rinse. Get medical attention immediately.

Skin: Take off immediately all contaminated clothing. Wash affected area with soap and water and rinse with large amounts of water for 15 minutes. Get medical attention immediately.

Oral: Do not induce vomiting. Never give anything to mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician or poison control center, treat symptomatically.

Most important symptoms/effects, acute and delayed:

Eye: Transient mild irritation including stinging, watering, and redness.

Skin: Irritating depending on amount of material and speed of removal. Includes redness, burning and drying.

Inhalation: Mist or vapor can irritate the throat and lungs.

Ingestion: Can irritate mucous membranes of the mouth, throat, and esophagus. Symptoms include a burning sensation in the mouth and esophagus, nausea, vomiting, dizziness, drowsiness, loss of consciousness and delirium. This material can be absorbed by the stomach and intestinal tract.

Chronic: Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Indication of immediate medical attention and special treatment needed: Note to physicians: Exposure to high concentrations of this material may be associated with cardiac arrhythmias. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias. Other drugs with less arrhythmogenic potential should be considered. Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

General information: IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice. Ensure the medical personnel are aware of the material involved (show the label, if possible), and take precautions to protect themselves. Have the safety data sheet available.

5. FIRE FIGHTING MEASURES

Flammability: This product is flammable.

Test Method: Ignition distance test and Enclosed space ignition test

Suitable Extinguishing Media: Water fog, Foam, Dry chemical, Carbon dioxide (CO₂)

Unsuitable Extinguishing Media: Do not use waterjet as an extinguisher, as this will spread the fire.

Special hazards: Hazardous reaction will not occur under normal conditions. Keep containers cool by spraying with water.

Special Fire Fighting Instruction: In the event of fire, wear self-contained breathing apparatus and other protective clothing to prevent contact with the skin and eyes. Exposure to decomposition products may be a hazard to health.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Flammable aerosol. Use personal protective equipment. Evacuate personnel to safe area. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental precautions: If containers rupture, prevent material from entering sewers, waterways, or low areas. Should not be released into the environment. Local authorities should be advised if significant spillages cannot be contained.

Spill Cleanup: Soak up with sand, oil dry or other noncombustible absorbent materials. Place in an approved container for disposal according to local / national regulations. After all visible traces, including vapors, have been removed, thoroughly wet vacuum the area. Caution: Contaminated surfaces may be slippery.

7. HANDLING AND STORAGE

Handling: Keep away from open flame or other ignition sources. Use in a well-ventilated area to avoid breathing vapors. Vapors are heavier than air and accumulate in low areas and can travel considerable distance to an ignition source. Use only with adequate ventilation. Use appropriate respiratory protection when ventilation is inadequate. When using do not eat, drink, or smoke. Avoid contact with skin, eyes, or clothing. Wash thoroughly after handling.

Storage Conditions: Store in a clean, dry place that is well-ventilated. Do not store near sources of heat, in direct sunlight or where temperatures exceed 125°F/52°C. Do not pierce or burn, even after use

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

1,1,1,2-Tetrafluoroethane
Isopropyl Alcohol
Heptane

TWA (ACGIH)

Not Established
200 ppm , TWA
400 ppm

TWA (OSHA)

Not Established
400 ppm, 8 Hr. TWA
500ppm

Respiratory Protection: Avoid breathing vapors, mists, or spray. Use with adequate ventilation especially for enclosed or low places. Use NIOSH approved respirators, such as an air-purifying respirator with organic cartridges. In poorly ventilated areas, use an approved self-contained breathing apparatus.

Eye Protection: Avoid eye contact. Use chemical goggles or safety glasses with side shields. Emergency shower and eyewash should be easily accessible to work area.

Skin Protection: Where there is potential for skin contact have available and wear as appropriate impervious gloves and protective clothing. Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wash hands before breaks and at the end of workday.

General Hygiene: Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N.A.

Percent Volatile by Volume: 97

Density: 0.71 g/cc at 77 F/25 C

Vapor Pressure: N.A.

Vapor Density (Air=1): N.A.

Solubility in H₂O: N.A.

pH Information: N.A.

Evaporation Rate (CC14=1): N.A.

Form: Aerosol

Appearance: Milky

Color: White

Odor: Mild

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Vapors may form flammable/explosive mixture with air.

Material and Conditions to Avoid: Avoid all sources of ignition. Do not allow vapor to accumulate in low or confined areas. Do not store with strong oxidizing agents.

Hazardous Decomposition Products: Fumes, smoke, Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Heptane

Acute Dermal Toxicity: LD50: >2000 mg/kg, Rabbit

Acute Inhalation Toxicity: LC50: 103 ppm, 4 hours

Acute Oral Toxicity: LD50: >5000 mg/kg, Rat

Skin corrosion/irritation: Irritating to skin.

Serious eye damage/eye irritation: Mild eye irritation

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: Not mutagenic in the Salmonella/microsome (Ames) assay

Carcinogenicity: Not listed as a carcinogen or potential carcinogen.

Reproductive Toxicity: No information available.

STOT-single exposure: May cause drowsiness and dizziness.

STOT-repeated exposure: No information available.

Aspiration hazard: May be fatal if swallowed and enters airways.

Isopropyl Alcohol

Acute Oral Toxicity: LD50, Rat: > 5,000mg/kg

Acute Inhalation Toxicity: 6 hour, LC50, Rat: > 25mg/l (vapor)

Acute Dermal Toxicity: LD50, Rabbit: > 5,000 mg/kg

Skin Corrosion/Irritation: No skin irritation in rabbits

Serious Eye Irritation/ Eye Irritation: Eye irritation, in rabbits. Reversing in 21 days.

Skin Sensitization: Not classified based on available information

Respiratory Sensitization: Not classified based on available information

Germ Cell Mutagenicity: Not classified based on available information

Carcinogenicity: Not classified based on available information.

Reproductive toxicity: Not classified based on available information

STOT-single exposure: May cause drowsiness and dizziness.

STOT-repeated exposure: Not classified based on available information

Aspiration toxicity: Not classified based on available information

12. ECOLOGICAL INFORMATION

Heptane

Toxicity to Fish

24 hour, LC50, Carassius auratus (goldfish): 4 mg/l

96 hour, LC50, Tilapia mossambica: 375 mg/l

Toxicity to daphnia and other aquatic invertebrates

48 hour, EC50, Daphnia magna (water flea): 1.50 mg/l

Persistence and degradability: Readily biodegradable

Degradability 70% in 28 days.

Bioaccumulative Potential: The potential is high.

The log octanol/water coefficient for this product is: log Pow 4.66

Bio-concentration Factor (BCF): 552

Mobility in Soil: No data available.

Other Adverse Effects: Very toxic to aquatic life with long lasting effects.

Isopropyl Alcohol

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Toxic to Fish: 96 hour, LC50 in Fathead minnow (*Pimephales promelas*): 9640 mg/l

Toxic to daphnia and other aquatic invertebrates: 24 hour, EC50 Water flea (*Daphnia magna*): >10,000 mg/l

Toxic to microorganisms: 16 hour, EC50 (*Pseudomonas putida*): >1,050 mg/l

Persistence and degradability: Rapidly degradable

Bioaccumulative potential: Partition coefficient n-octanol/ water (log Pow): 0.05

Mobility in soil: No data available.

13. DISPOSAL CONSIDERATIONS

Do not puncture or incinerate cans. Comply with federal, state and local regulations. Remove to a permitted waste disposal facility.

14. TRANSPORT INFORMATION

U.S. DOT

Limited Quantity

IATA

Proper Shipping Name: Aerosols, Flammable

Hazard Class: 2.1

Identification No. UN1950

Packing Group: None

IMDG

Proper Shipping Name: Aerosols, Flammable

Hazard Class: 2.1

Identification No. UN1950

Packing Group: None

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients are listed in TSCA inventory.

State Regulations (U.S.)

California Proposition 65: This product can expose you to chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

16. OTHER INFORMATION

NPCA-HMIS Ratings:

Health	- 2
Flammability	- 2
Reactivity	- 0

Personal Protective rating to be supplied by user depending on the conditions

FOR INDUSTRIAL USE ONLY

DATE: SEPTEMBER 2020

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. Final determination of suitability of any material is the sole responsibility of the user.