SAFETY DATA SHEET
DGF14A - Duraglide Dry Lubricant, Aerosol

1. Identification

Product identifier
Product name DGF14A - Duraglide Dry Lubricant, Aerosol
Product number MCC-DGF14A

Recommended use of the chemical and restrictions on use
Application Lubricant.
Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet
Supplier MICROCARE CORPORATION
Manufacturer MICROCARE CORPORATION
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: +1 800 638 0125, +1 860-827-0626
Fax: +1 860-893-1930
techsupport@microcare.com

Emergency telephone number
Emergency telephone CHEMTREC 1-800-424-9300 (within the U.S.)
+1 703-741-5970 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture
OSHA Regulatory Status This Product is Not Hazardous under the OSHA Hazard Communication Standard.
Physical hazards Not Classified
Health hazards Not Classified
Environmental hazards Not Classified

Label elements
Hazard statements NC Not Classified
Precautionary statements P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F.
P501 Dispose of contents/container in accordance with local regulations.

Supplemental label information Safety data sheet available on request. For use in industrial installations only.

Other hazards
DGF14A - Duraglide Dry Lubricant, Aerosol

This product does not contain any substances classified as PBT or vPvB.

### 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixtures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HFC-134a Tetrafluoroethane</strong></td>
<td>60-100%</td>
</tr>
<tr>
<td>CAS number: 811-97-2</td>
<td></td>
</tr>
<tr>
<td><strong>Classification</strong></td>
<td></td>
</tr>
<tr>
<td>Press. Gas, Liquefied - H280</td>
<td></td>
</tr>
</tbody>
</table>

| **PROPAN-2-OL**            | 1-5%          |
| CAS number: 67-63-0        |               |
| **Classification**        |               |
| Flam. Liq. 2 - H225       |               |
| Eye Irrit. 2A - H319      |               |
| STOT SE 3 - H336          |               |

| **Poly-tfe, omega-hydro-alpha-(methylcyclohexyl)** | <1%           |
| CAS number: 65530-85-0 |               |
| **Classification**      |               |
| Not Classified           |               |

The full text for all hazard statements is displayed in Section 16.

**Composition comments**

TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200

### 4. First-aid measures

**Description of first aid measures**

**General information**

If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

**Inhalation**

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

**Ingestion**

Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

**Skin Contact**

Rinse with water.

**Eye contact**

Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

**Protection of first aiders**

First aid personnel should wear appropriate protective equipment during any rescue.

**Most important symptoms and effects, both acute and delayed**

**General information**

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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Inhalation  Spray/mists may cause respiratory tract irritation.
Ingestion  Due to the physical nature of this product, it is unlikely that ingestion will occur.
Skin contact  Repeated exposure may cause skin dryness or cracking.
Eye contact  May be slightly irritating to eyes. May cause discomfort.

Indication of immediate medical attention and special treatment needed

Notes for the doctor  Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media  The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media  Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards  Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant.

Hazardous combustion products  Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting  Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters  Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions  Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion.

Environmental precautions

Environmental precautions  Avoid discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up
Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapors and spray/mists.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

Storage class

Chemical storage.

Specific end uses(s)

The identified uses for this product are detailed in Section 1.

Usage description

Lubricant.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): OES 4240 mg/m³

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³
Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³
A4

OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
A4 = Not Classifiable as a Human Carcinogen.
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Additional Occupational Exposure Limits

Ingredient comments

WEL = Workplace Exposure Limits

Exposure controls

Appropriate engineering controls
Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection
Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection
No specific hand protection recommended.

Other skin and body protection
Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures
Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection
Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

Environmental exposure controls
Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance
Liquid. Aerosol.

Color
White/off-white. Waxy solid.

Odor
Slight alcoholic.

Odor threshold
Not determined.

Melting point
PTFE Content only 300°C/581°F

Initial boiling point and range
-26.5°C/-15.7°F @ 101.3 kPa

Flash point
No information available.

Evaporation rate
No information available.

Evaporation factor
No information available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits
Not determined.

Other flammability
The product is not flammable.

Vapor pressure
663 kPa @ 25°C
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Vapor density 3.18 @ 25 (C) / 77 (F)
Relative density No information available.
Bulk density No information available.
Solubility(ies) Slightly soluble in water.
Partition coefficient No information available.
Decomposition Temperature No information available.
Explosive properties No information available.
Comments Aerosol.
Particle size 1-15 micron
Volutility 98.5%
Volatile organic compound No information available.

10. Stability and reactivity

Reactivity See the other subsections of this section for further details.
Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions No potentially hazardous reactions known.
Conditions to avoid Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated
Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects
Acute toxicity - oral
Notes (oral LD₅₀) Based on available data the classification criteria are not met.
Acute toxicity - dermal
Notes (dermal LD₅₀) Based on available data the classification criteria are not met.
Acute toxicity - inhalation
Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.
Skin corrosion/irritation
Animal data Based on available data the classification criteria are not met.
Serious eye damage/irritation
Serious eye damage/irritation Based on available data the classification criteria are not met.
Respiratory sensitization
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**Respiratory sensitization** Based on available data the classification criteria are not met.

**Skin sensitization** Based on available data the classification criteria are not met.

**Germ cell mutagenicity** Based on available data the classification criteria are not met.

**Carcinogenicity**
- **Carcinogenicity** Based on available data the classification criteria are not met.
- **IARC carcinogenicity** Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

**Reproductive toxicity**
- **Reproductive toxicity - fertility** Based on available data the classification criteria are not met.
- **Reproductive toxicity - development** Based on available data the classification criteria are not met.

**Specific target organ toxicity - single exposure**
- **STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

**Specific target organ toxicity - repeated exposure**
- **STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

**Aspiration hazard**
- **Aspiration hazard** Based on available data the classification criteria are not met.

**General information**

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation** Spray/mists may cause respiratory tract irritation.

**Ingestion** Due to the physical nature of this product, it is unlikely that ingestion will occur.

**Skin Contact** Repeated exposure may cause skin dryness or cracking.

**Eye contact** May be slightly irritating to eyes. May cause discomfort.

**Route of exposure** Ingestion Inhalation Skin and/or eye contact

**Target Organs** No specific target organs known.

**Toxicological information on ingredients.**

**HFC-134a Tetrafluoroethane**

**Other health effects** There is no evidence that the product can cause cancer.

**Acute toxicity - inhalation**
- **Acute toxicity inhalation (LC₅₀ gases ppmV)** 567,000.0
- **Species** Rat
- **ATE inhalation (gases ppm)** 567,000.0
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Inhalation  
Vapors irritate the respiratory system. May cause coughing and difficulties in breathing.

Ingestion  
May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin Contact  
May cause allergic contact eczema. Contact with liquid form may cause frostbite.

Eye contact  
May cause temporary eye irritation.

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Acute toxicity - inhalation  
Acute toxicity inhalation (LC₅₀ vapours mg/l) 16,000.0

ATE inhalation (vapours mg/l) 16,000.0

Carcinogenicity  
IARC carcinogenicity  IARC Group 3  Not classifiable as to its carcinogenicity to humans.

NTP carcinogenicity  Not listed.

OSHA Carcinogenicity  Not listed.

12. Ecological information

Ecotoxicity  
Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity  
Based on available data the classification criteria are not met.

Acute aquatic toxicity  
Acute toxicity - fish  
LC₅₀, 96 hours: 450 mg/L, Fish

Acute toxicity - aquatic invertebrates  
EC₅₀, 48 hours: 980 mg/L, Daphnia magna

Ecological information on ingredients.

HFC-134a Tetrafluoroethane

Acute aquatic toxicity  
Acute toxicity - fish  
LC₅₀, 96 hours: 450 mg/l, Fish

Acute toxicity - aquatic invertebrates  
EC₅₀, 48 hours: 980 mg/l, Daphnia magna

PROPAN-2-OL

Acute aquatic toxicity  
Acute toxicity - fish  
LC₅₀, 96 hours: 9,640 mg/l, Fish

Acute toxicity - aquatic invertebrates  
EC₅₀, 48 hours: 5102 mg/l, Daphnia magna

Acute toxicity - aquatic plants  
IC₅₀, 72 hours: >2,000 mg/l, Algae
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**Persistence and degradability**

The degradability of the product is not known.

**Bioaccumulative potential**

Bio-Accumulative Potential: No data available on bioaccumulation.

**Partition coefficient**

No information available.

**Ecological information on ingredients.**

**HFC-134a Tetrafluoroethane**

- **Partition coefficient**
  - Pow: 1.06

**PROPAN-2-OL**

- **Partition coefficient**
  - : 0.05

**Mobility in soil**

**Mobility**

The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

**Other adverse effects**

None known.

### 13. Disposal considerations

#### Waste treatment methods

**General information**

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods**

Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents.

### 14. Transport information

**UN Number**

**UN No. (IMDG)**

1950

**UN No. (ICAO)**

1950

**UN proper shipping name**

Proper shipping name (TDG) **LIMITED QUANTITY**

Proper shipping name (IMDG) UN1950, Aerosols, Non-Flammable, 2.2, Limited Quantity

Proper shipping name (ICAO) UN1950, Aerosols, Non-Flammable, 2.2, Limited Quantity

Proper shipping name (DOT) **LIMITED QUANTITY**

**Special precautions for user**

Not applicable.
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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant. No information required.

15. Regulatory information

Guidance
Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.

US Federal Regulations
SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
None of the ingredients are listed or exempt.

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
The following ingredients are listed or exempt:
PROPN-2-OL

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:
PROPN-2-OL

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:
PROPN-2-OL
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Rhode Island "Right To Know" List
The following ingredients are listed or exempt:
PROPAN-2-OL

Minnesota "Right To Know" List
The following ingredients are listed or exempt:
HFC-134a Tetrafluoroethane
PROPAN-2-OL

New Jersey "Right To Know" List
The following ingredients are listed or exempt:
PROPAN-2-OL

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:
PROPAN-2-OL

Inventories
US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
The following ingredients are listed or exempt:
Poly-tfe, omega-hydro-alpha-(methylcyclohexyl)

16. Other information

Classification abbreviations and acronyms
Aerosol = Aerosol

Training advice
Only trained personnel should use this material.

Revision date
1/17/2019

Revision
31

Supersedes date
6/23/2017

SDS No.
AEROSOL - DGF14A

SDS status
Approved.

Hazard statements in full
H225 Highly flammable liquid and vapor.
H280 Contains gas under pressure; may explode if heated.
H319 Causes serious eye irritation.
H36 May cause drowsiness or dizziness.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.