



## Safety Data Sheet

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ FC-502 Fluorochemical Diol

#### Product Identification Numbers

98-0213-2794-9, 98-0213-2795-6

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Additive

#### 1.3. Supplier's details

|                      |                                         |
|----------------------|-----------------------------------------|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Home Care Division                      |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 1-888-3M HELPS (1-888-364-3577)         |

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 1.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Corrosion |

##### Pictograms



**Hazard Statements**

Causes serious eye damage.

**Precautionary Statements****Prevention:**

Wear eye/face protection.

**Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor/physician.

**2.3. Hazards not otherwise classified**

None.

16% of the mixture consists of ingredients of unknown acute oral toxicity.

**SECTION 3: Composition/information on ingredients**

| Ingredient                                          | C.A.S. No.    | % by Wt |
|-----------------------------------------------------|---------------|---------|
| Fluorochemical Diol                                 | Trade Secret* | 88 - 96 |
| High Boiling Fluorochemical Impurities and Hydrides | Mixture       | 0 - 11  |
| Low Boiling Impurities                              | Mixture       | 0 - 5   |
| Fluorochemical Alcohol                              | Trade Secret* | 0 - 5   |
| Sulfonamide Derivative Impurity                     | Trade Secret* | 0 - 0.5 |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

Wash with soap and water. If signs/symptoms develop, get medical attention.

**Eye Contact:**

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

**If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1. Information on toxicological effects.

**4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

### 5.2. Special hazards arising from the substance or mixture

Exposure to extreme heat can give rise to thermal decomposition.

### Hazardous Decomposition or By-Products

| <u>Substance</u>              | <u>Condition</u>  |
|-------------------------------|-------------------|
| Carbon monoxide               | During Combustion |
| Carbon dioxide                | During Combustion |
| Hydrogen Fluoride             | During Combustion |
| Oxides of Nitrogen            | During Combustion |
| Oxides of Sulfur              | During Combustion |
| Toxic Vapor, Gas, Particulate | During Combustion |

### 5.3. Special protective actions for fire-fighters

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Do not breathe thermal decomposition products. For industrial or professional use only. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

### 7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from strong bases.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### 8.2. Exposure controls

**8.2.1. Engineering controls**

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)****Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full Face Shield

Indirect Vented Goggles

**Skin/hand protection**

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Nitrile Rubber

**Respiratory protection**

During heating:

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

|                                                |                                    |
|------------------------------------------------|------------------------------------|
| <b>General Physical Form:</b>                  | Solid                              |
| <b>Specific Physical Form:</b>                 | Waxy Solid                         |
| <b>Odor, Color, Grade:</b>                     | White solid with very little odor. |
| <b>Odor threshold</b>                          | <i>No Data Available</i>           |
| <b>pH</b>                                      | <i>Not Applicable</i>              |
| <b>Melting point</b>                           | 174 °F                             |
| <b>Boiling Point</b>                           | <i>Not Applicable</i>              |
| <b>Flash Point</b>                             | No flash point                     |
| <b>Evaporation rate</b>                        | <i>No Data Available</i>           |
| <b>Flammability (solid, gas)</b>               | Not Classified                     |
| <b>Flammable Limits(LEL)</b>                   | <i>Not Applicable</i>              |
| <b>Flammable Limits(UEL)</b>                   | <i>Not Applicable</i>              |
| <b>Vapor Pressure</b>                          | <i>Not Applicable</i>              |
| <b>Vapor Density</b>                           | <i>Not Applicable</i>              |
| <b>Density</b>                                 | >=1 g/cm3                          |
| <b>Specific Gravity</b>                        | >=1 [Ref Std: WATER=1]             |
| <b>Solubility In Water</b>                     | 592 ppm                            |
| <b>Solubility- non-water</b>                   | <i>No Data Available</i>           |
| <b>Partition coefficient: n-octanol/ water</b> | <i>No Data Available</i>           |
| <b>Autoignition temperature</b>                | <i>No Data Available</i>           |

**Decomposition temperature***No Data Available***Viscosity***Not Applicable***Bulk density**

13.6 lb/gal

**Percent volatile***Not Applicable*

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong acids

Strong bases

### 10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known.      |                  |

Refer to section 5.2 for hazardous decomposition products during combustion.

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### Inhalation:

No known health effects.

#### Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

**Eye Contact:**

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Ingestion:**

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

| Name                   | Route     | Species           | Value                                                 |
|------------------------|-----------|-------------------|-------------------------------------------------------|
| Overall product        | Ingestion |                   | No data available; calculated ATE 2,000 - 5,000 mg/kg |
| Fluorochemical Diol    | Ingestion |                   | LD50 estimated to be 2,000 - 5,000 mg/kg              |
| Fluorochemical Alcohol | Ingestion | similar compounds | LD50 > 2,000 mg/kg                                    |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                   | Species           | Value              |
|------------------------|-------------------|--------------------|
| Fluorochemical Alcohol | similar compounds | Minimal irritation |

**Serious Eye Damage/Irritation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Skin Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Carcinogenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

**SECTION 12: Ecological information****Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

**Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

**SECTION 13: Disposal considerations****13.1. Disposal methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

**EPA Hazardous Waste Number (RCRA):** Not regulated

**SECTION 14: Transport Information**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

**SECTION 15: Regulatory information****15.1. US Federal Regulations**

This material contains one or more substances that are subject to a TSCA Consent Order. Contact 3M for more information.

**311/312 Hazard Categories:**

Fire Hazard - No    Pressure Hazard - No    Reactivity Hazard - No    Immediate Hazard - Yes    Delayed Hazard - No

**This material contains a chemical which requires export notification under TSCA Section 12[b]:**

| <b><u>Ingredient (Category if applicable)</u></b> | <b><u>C.A.S. No</u></b> | <b><u>Regulation</u></b>                                                 | <b><u>Status</u></b> |
|---------------------------------------------------|-------------------------|--------------------------------------------------------------------------|----------------------|
| Sulfonamide Derivative Impurity                   | Trade Secret            | Toxic Substances Control Act (TSCA) 5<br>SNUR or Consent Order Chemicals | Applicable           |
| Fluorochemical Alcohol                            | Trade Secret            | Toxic Substances Control Act (TSCA) 5<br>SNUR or Consent Order Chemicals | Applicable           |
| Fluorochemical Diol                               | Trade Secret            | Toxic Substances Control Act (TSCA) 5                                    | Applicable           |

SNUR or Consent Order Chemicals

This material contains a chemical regulated by an EPA Significant New Use Rule (TSCA Section 5)

**Ingredient (Category if applicable)**  
Fluorochemical Alcohol

**C.A.S. No**  
Trade Secret

**Reference**  
40 CFR 721.10770

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 3 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

### HMIS Hazard Classification

**Health:** 3 **Flammability:** 1 **Physical Hazard:** 0 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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