



# Cargille Laser Liquid Code 3421 n<sub>D</sub> = 1.3026-1.4010

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 02/19/2024

Version: 1.0

### SECTION 1: IDENTIFICATION

#### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Cargille Laser Liquid Code 3421 n<sub>D</sub> = 1.3026-1.4010

**Product Code:** Cat No 20109, 20106-RCF

#### 1.2. Intended Use of the Product

(ABBR. C.I.U.) As an Optical Liquid at normal room pressure 101.32 kPa (760 mm Hg), temperature -6°C to 65°C (20°F to 150°F) in a non misted/non airborne state in a room having a normal air changes (2)/HR., in a trained and supervised laboratory/industrial setting using standard Good Laboratory/Good Manufacturing procedures.

Note: Product normally sold in 4 oz (120cc), 16 oz (480cc), and gallon (3.84L) quantities. Used in single drop to a few cubic centimeters per application. See requisitioner for specific quantities involved.

#### 1.3. Name, Address, and Telephone of the Responsible Party

Cargille Laboratories

55 Commerce Road

Cedar Grove, NJ 07009-1289

T 973-239-6633

Website: [www.cargille.com](http://www.cargille.com)

email: [Technical@Cargille.com](mailto:Technical@Cargille.com)

#### 1.4. Emergency Telephone Number

**Emergency Number** : VelocityEHS

(800)255-3924 (North America)

+1 (813)248-0585 (International)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### GHS-US/CA Classification

Hazardous to the aquatic environment – Chronic Hazard Category 4 H413

#### 2.2. Label Elements

##### GHS-US/CA Labeling

**Hazard Statements (GHS-US/CA)** : H413 - May cause long lasting harmful effects to aquatic life.

**Precautionary Statements (GHS-US/CA)** : P273 - Avoid release to the environment.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

#### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

#### 2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Perfluoro compounds, C5-18	Perfluoro compounds, C5-18 (An inert fluid composed of a complex combination of organic compounds resulting from the distillation of electrochemically fluorinated organic compounds. It consists of branched, linear, and cyclic perfluorinated hydrocarbons having carbon	(CAS-No.) 86508-42-1	30 – 60	Aquatic Chronic 4, H413

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	numbers predominantly in the range of C5-18 and boiling in the range of approximately 25-255°C. Perfluorinated amine and ether compounds may also be present.) / 3M Fluorinert FC-72 electronic liquid/3M PF-5060DL performance / Fluorinert heat transfer fluids (FC-40, FC-283)			
Chlorotrifluoroethylene polymer	Chlorotrifluoroethene homopolymer / Ethene, chlorotrifluoro-, homopolymer / Polytrifluorochloroethylene / Trifluorochloroethylene polymer / Polychlorotrifluoroethylene / Ethene, 1-chloro-1,2,2-trifluoro-, homopolymer / POLYCHLOROTRIFLUOROETHYLENE / Polychlorotrifluoroethylene resin / Chlorotrifluoroethene, homopolymer	(CAS-No.) 9002-83-9	30 – 60	Not classified

Full text of H-statements: see section 16

\* The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) 29 CFR 1910.1200. Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Not expected to present a significant hazard under anticipated conditions of normal use.

**Inhalation:** Prolonged exposure may cause irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation.

**Eye Contact:** May cause slight irritation to eyes.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None known.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

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### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Chlorine compounds. Fluorine compounds.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

### 5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

### 7.3. Specific End Use(s)

(ABBR. C.I.U.) As an Optical Liquid at normal room pressure 101.32 kPa (760 mm Hg), temperature -6°C to 65°C (20°F to 150°F) in a non misted/non airborne state in a room having a normal air changes (2)/HR., in a trained and supervised laboratory/industrial setting using standard Good Laboratory/Good Manufacturing procedures.

Note: Product normally sold in 4 oz (120cc), 16 oz (480cc), and gallon (3.84L) quantities. Used in single drop to a few cubic centimeters per application. See requisitioner for specific quantities involved.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

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**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Colorless
Odor	: Slight citronella
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: mineral oil=1: ca 1
Melting Point	: -22.77 °C (-8.99 °F)
Freezing Point	: No data available
Boiling Point	: > 215 °C (419 °F)
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: 1 mm Hg (133.32 Pascals )
Relative Vapor Density at 20°C	: > ca 28 (Air = 1)
Relative Density	: No data available
Specific Gravity	: ca 1.9 (Water =1)
Solubility	: Water: < NIL
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: 16 cSt @ 25 °C / 77 °F

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

### 10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon oxides (CO, CO<sub>2</sub>). Chlorine compounds. Fluorine compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity (Oral):** Not classified

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**Acute Toxicity (Dermal):** Not classified

**Acute Toxicity (Inhalation):** Not classified

### LD50 and LC50 Data:

No additional information available

**Skin Corrosion/Irritation:** Not classified

**Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None known.

### 11.2. Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

Chlorotrifluoroethylene polymer (9002-83-9)	
LD50 Oral Rat	> 9200 mg/kg (Source: NLM_CIP)
LC50 Inhalation Rat	68.6 mg/l/4h

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** May cause long lasting harmful effects to aquatic life.

### 12.2. Persistence and Degradability

Cargille Laser Liquid Code 3421 n <sub>D</sub> = 1.3026-1.4010	
Persistence and Degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

Cargille Laser Liquid Code 3421 n <sub>D</sub> = 1.3026-1.4010	
Bioaccumulative Potential	Not established.

### 12.4. Mobility in Soil

No additional information available

### 12.5. Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

Not regulated for transport

### 14.2. In Accordance with IMDG

Not regulated for transport

### 14.3. In Accordance with IATA

Not regulated for transport

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### 14.4. In Accordance with TDG

Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

<b>Chlorotrifluoroethylene polymer (9002-83-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>EPA TSCA Regulatory Flag</b>	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
<b>Perfluoro compounds, C5-18 (86508-42-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>EPA TSCA Regulatory Flag</b>	PMN - PMN - indicates a commenced PMN substance.

### 15.2. US State Regulations

Neither this product nor its chemical components appear on any US state lists, or its chemical components are not required to be disclosed.

### 15.3. Canadian Regulations

<b>Chlorotrifluoroethylene polymer (9002-83-9)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>Perfluoro compounds, C5-18 (86508-42-1)</b>	
Listed on the Canadian DSL (Domestic Substances List)	

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

<b>Date of Preparation or Latest Revision</b>	: 02/19/2024
<b>Other Information</b>	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

### GHS Full Text Phrases:

H413	May cause long lasting harmful effects to aquatic life
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## Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)

AU\_WES: Australia WES

CHEMVIEW: ChemView (U.S. Environmental Protection Agency)

EC\_RAR: European Commission Renewal Assessment Report

EC\_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits

ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports

ECHA\_API: European Chemicals Agency API

ECHA\_RAC: ECHA Committee for Risk Assessment

EFSA: European Food Safety Authority

EPA: U.S. Environmental Protection Agency

EPA\_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)

EPA\_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)

EPA\_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)

EPA\_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)

EU\_CLH: European Union Harmonised Classification and Labelling Proposal

EU\_RAR: European Union Risk Assessment Report

FOOD\_JOURN: Food Research Journal (1956)

IARC: The International Agency for Research on Cancer

IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles

IUCLID: International Uniform Chemical Information Database

JAPAN\_GHS: Japan GHS Basis for Classification Data

JP\_J-CHECK: Japan J-Check

KR\_NIER: South Korea National Institute of Environmental Research Evaluations

NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme

NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)

NLM\_CIP: National Library of Medicine ChemID plus database

NLM\_HSDB: National Library of Medicine Hazardous Substance Data Bank

NLM\_PUBMED: National Library of Medicine PubMed database

NTP: National Toxicology Program

NZ\_CCID: New Zealand Chemical Classification and Information Database

OECD\_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)

OECD\_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)

WHO: World Health Organization

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. The information supplied is based on data available to us and is believed to be correct. However, no guarantee or warranty of any kind expressed or implied, is made with respect to this information presented and Cargille Laboratories assumes no responsibility for the result of the use of this product. This information is furnished upon the condition that the persons responsible for its use shall make their own determination of the suitability of the material for their particular purpose. Please note that we consider the English version to be the authoritative version for compliance and regulatory purposes.*

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