



# Cargille Refractive Index Liquid Series B $n_D = 1.657 - 1.700$

## 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).

Revision Date: 04/02/2024 Date of Issue: 04/28/2016 Supersedes Date: 04/28/2016 Version: 2.0

### SECTION 1: IDENTIFICATION

#### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Cargille Refractive Index Liquid Series B  $n_D = 1.657 - 1.700$

**Product Code:** Cat No 18121, 18122, 18125, 1812X, 1812Y, 19122, 19123, 19124

#### 1.2. Intended Use of the Product

For professional and R&D use only. Conditions of Intended Use: (ABBR. C.I.U.) As an Optical Refractive Index Liquid at normal room pressure 101.32 kPa (760 mm Hg), temperature 18°C to 40°C (65°F to 104°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 1/4 oz (7.4cc), 1 oz (30cc), 4 oz (120cc), and 16 oz (480cc) 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

Acute toxicity (oral) Category 4	H302
Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 2A	H319
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

#### 2.2. Label Elements

##### GHS-US/CA Labeling

##### Hazard Pictograms (GHS-US/CA)



##### Signal Word (GHS-US/CA)

: Warning

##### Hazard Statements (GHS-US/CA)

: H302 - Harmful if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H335 - May cause respiratory irritation.

##### Precautionary Statements (GHS-US/CA)

: P261 - Avoid breathing vapors, mist, or spray.  
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for

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breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P321 - Specific treatment (see section 4 on this SDS).

P330 - Rinse mouth.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

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
Naphthalene, 1-bromo-	1-Beomonaphthalene / .alpha.-Bromonaphthalene / 1-Bromonaphthalene	(CAS-No.) 90-11-9	30 – 60	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
Naphthalene, 1-iodo-	1-Iodonaphthalene	(CAS-No.) 90-14-2	30 – 60	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

\* 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%). Full text of H-statements: see section 16.

## 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. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Immediately rinse with water for at least 15 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:** May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation. Harmful if swallowed.

**Inhalation:** Irritation of the respiratory tract and the other mucous membranes.

**Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Eye Contact:** Contact causes severe irritation with redness and swelling of the conjunctiva.

**Ingestion:** This material is harmful orally and can cause adverse health effects or death in significant amounts.

**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.

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## 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.

### 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>). Halogenated Compounds. Toxic vapors.

### 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:** Do not get in eyes, on skin, or on 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:** Ventilate area. 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.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 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:** Avoid breathing vapors, mist, spray. Do not get in eyes, on skin, or on clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle empty containers with care because they may still present a hazard.

**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. Store locked up/in a secure area.

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

### 7.3. Specific End Use(s)

For professional and R&D use only. Conditions of Intended Use: (ABBR. C.I.U.) As an Optical Refractive Index Liquid at normal room pressure 101.32 kPa (760 mm Hg), temperature 18°C to 40°C (65°F to 104°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.

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## 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:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**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	: Yellow
Odor	: Pungent to Moth balls
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: 1 mineral oil= 1: ca.1
Melting Point	: 4 °C (39.2 °F)
Freezing Point	: No data available
Boiling Point	: > 279 °C (534.2 °F)
Flash Point	: > 93 °C (199.4 °F) (Open Cup)
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 1 (air = 1)
Relative Density	: 1.59 (water = 1) @ 25 °C / 77 °F
Specific Gravity	: No data available
Solubility	: Water: Practically insoluble
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: 4 cSt @ 25 °C (77 °F)
Explosive Properties	: Product is not explosive

## 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).

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### 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>). Halogenated compounds. Toxic gases.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity (Oral):** Harmful if swallowed.

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

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

#### LD50 and LC50 Data:

#### Cargille Refractive Index Liquid Series B $n_D = 1.657 - 1.700$

ATE US/CA (oral)	1,000.00 mg/kg body weight
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**Skin Corrosion/Irritation:** Causes skin irritation.

**Eye Damage/Irritation:** Causes serious eye irritation.

**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):** May cause respiratory irritation.

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** Irritation of the respiratory tract and the other mucous membranes.

**Symptoms/Injuries After Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Symptoms/Injuries After Eye Contact:** Contact causes severe irritation with redness and swelling of the conjunctiva.

**Symptoms/Injuries After Ingestion:** This material is harmful orally and can cause adverse health effects or death in significant amounts.

**Chronic Symptoms:** None known.

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

#### LD50 and LC50 Data:

#### Naphthalene, 1-bromo- (90-11-9)

ATE US/CA (oral)	500.00 mg/kg body weight
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## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Not classified.

### 12.2. Persistence and Degradability

#### Cargille Refractive Index Liquid Series B $n_D = 1.657 - 1.700$

Persistence and Degradability	Not established.
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### 12.3. Bioaccumulative Potential

#### Cargille Refractive Index Liquid Series B $n_D = 1.657 - 1.700$

Bioaccumulative Potential	Not established.
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### 12.4. Mobility in Soil

No additional information available

### 12.5. Other Adverse Effects

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

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## 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.

## 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

### 14.4. In Accordance with TDG

Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

**Cargille Refractive Index Liquid Series B  $n_D = 1.657 - 1.700$**

**SARA Section 311/312 Hazard Classes**

Health hazard - Specific target organ toxicity (single or repeated exposure)  
Health hazard - Skin corrosion or Irritation  
Health hazard - Serious eye damage or eye irritation  
Health hazard - Acute toxicity (any route of exposure)

### **Naphthalene, 1-bromo- (90-11-9)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

### **Naphthalene, 1-iodo- (90-14-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

### 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

### **Naphthalene, 1-bromo- (90-11-9)**

Listed on the Canadian DSL (Domestic Substances List)

### **Naphthalene, 1-iodo- (90-14-2)**

Listed on the Canadian NDSL (Non-Domestic Substances List)

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

**Date of Preparation or Latest Revision** : 04/02/2024

**Revision**

**Other Information** : 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:

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

### Glossary of Data Source Abbreviations

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

FOOD\_JOURN: Food Research Journal (1956)

IARC: The International Agency for Research on Cancer

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AU_WES: Australia WES	IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)	IUCLID: International Uniform Chemical Information Database
EC_RAR: European Commission Renewal Assessment Report	JAPAN_GHS: Japan GHS Basis for Classification Data
EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits	JP_J-CHECK: Japan J-Check
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports	KR_NIER: South Korea National Institute of Environmental Research Evaluations
ECHA_API: European Chemicals Agency API	NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme
ECHA_RAC: ECHA Committee for Risk Assessment	NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)
EFSA: European Food Safety Authority	NLM_CIP: National Library of Medicine ChemID plus database
EPA: U.S. Environmental Protection Agency	NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank
EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)	NLM_PUBMED: National Library of Medicine PubMed database
EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)	NTP: National Toxicology Program
EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)	NZ_CCID: New Zealand Chemical Classification and Information Database
EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)	OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)
EU_CLH: European Union Harmonised Classification and Labelling Proposal	OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)
EU_RAR: European Union Risk Assessment Report	WHO: World Health Organization

*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.*

NA GHS SDS 2015 (Can, US)