



# Cargille Refractive Index Liquids Series B

nD=1.641-1.656

Page: 1/10

## Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

### 1 Identification

· **Product identifier**

· **Trade name:** Cargille Refractive Index Liquid Series B - nD= 1.641-1.656

· **Product code:** 18121, 18122, 18125, 1812X, 1812Y, 19121

· **Recommended use and restriction on use**

· **Recommended use:**

This SDS or an accurate copy is an integral part of using Refractive Index Liquid Series B. Only use Refractive Index Liquid Series B if the SDS is present. Conditions prevailing in this document, unless otherwise noted: Temperature = 23°C(73°F), Pressure = 1013.25 hPa (760 mm Hg).

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.

· **Restrictions on use:** Contact manufacturer

· **Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**

Cargille Laboratories  
55 Commerce Road  
Cedar Grove, NJ 07009-1289 USA  
973-239-6633  
www.cargille.com

· **Emergency telephone number:**

ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

### 2 Hazard(s) identification

· **Classification of the substance or mixture**

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



GHS08

· **Signal word:** Danger

· **Hazard statements:**

H304 May be fatal if swallowed and enters airways.

· **Precautionary statements:**

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P331 Do NOT induce vomiting.

(Cont'd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 1)

P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Components:** None in reportable quantities.

## 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash with soap and water.  
If skin irritation is experienced, consult a doctor.
- **After eye contact:**  
Remove contact lenses if worn.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**  
Gastric or intestinal disorders when ingested.
- **Indication of any immediate medical attention and special treatment needed:**  
If medical advice is needed, have product container or label at hand.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Foam  
Fire-extinguishing powder  
Gaseous extinguishing agents  
Carbon dioxide  
Water fog / haze
- **For safety reasons unsuitable extinguishing agents:**  
Water stream.  
Water spray
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.

(Cont'd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 2)

- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information:** No relevant information available.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.
- **Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling:** Avoid splashes or spray in enclosed areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Avoid storage near extreme heat, ignition sources or open flame.  
Store in a well-ventilated place. Keep cool.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidizers, strong acids, strong bases.
- **Further information about storage conditions:**  
Storage Temperatures : 65 - 90 °F / 18 - 32 °C.  
Keep containers tightly sealed.
- **Specific end use(s):** No relevant information available.

(Cont'd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 3)

## 8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**  
No relevant information available.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Yellow
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.

- **pH-value:** Not applicable.
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** >279 °C (>534 °F)

- **Flash point:** >93 °C (>199 °F) (Closed Cup)

(Cont'd. on page 5)

## Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 4)

· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Auto-ignition temperature:</b>	Not determined.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Danger of explosion:</b>	Not determined.
· <b>Explosion limits</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Oxidizing properties:</b>	Not determined.
· <b>Vapor pressure at 23 °C (73 °F):</b>	<1.33 hPa (<1 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	1.56 g/cm <sup>3</sup> (13.018 lbs/gal)
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	<2.2 (Air = 1.0)
· <b>Evaporation rate:</b>	<1.0 (n-Butyl Acetate = 1.0)
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity</b>	
<b>Dynamic at 25 °C (77 °F):</b>	6 cSt
<b>Kinematic:</b>	Not determined.
· <b>Other information</b>	No relevant information available.

### 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:**  
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.  
Reacts with strong oxidizing agents.  
Reacts with strong acids and alkali.
- **Conditions to avoid:**  
Excessive heat.  
Store away from oxidizing agents.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:**  
  
Under fire conditions only:  
Carbon monoxide and carbon dioxide  
Halogenated hydrocarbons

(Cont'd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

Hydrohalogens

(Cont'd. of page 5)

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** None.
- **Repeated dose toxicity:** None.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:**  
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **Mobility in soil:** No relevant information available.
- **Ecotoxicological effects:**
- **Remark:**  
Harmful to fish  
Toxic for water fleas

(Cont'd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 6)

- **Additional ecological information**

- **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- **UN-Number**

- **DOT**

Exempt

- **ADR, IMDG, IATA**

UN3082

- **UN proper shipping name**

- **DOT**

Exempt

- **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TERPHENYL).

- **IMDG, IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TERPHENYL).

- **Transport hazard class(es)**

- **DOT**

- **Class**

Exempt

- **ADR**



- **Class**

9 (M6) Miscellaneous dangerous substances and articles

(Cont'd. on page 8)

# Safety Data Sheet


acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 7)

· <b>Label</b>	9
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	9 Miscellaneous dangerous substances and articles
· <b>Label</b>	9
· <b>Packing group</b>	Exempt
· <b>DOT</b>	III
· <b>ADR, IMDG, IATA</b>	III
· <b>Environmental hazards</b>	
· <b>Marine pollutant:</b>	Yes Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Miscellaneous dangerous substances and articles
· <b>Danger code (Kemler):</b>	90
· <b>EMS Number:</b>	F-A,S-F
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not regulated when carried in single or combination packaging containing a net quantity of 5L or less for liquids or 5 kg or less for solids per the following: DOT: 171.4(c)(2) ADR: SP 375 IMDG: 2.10.2.7 IATA: special provision A197

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

(Cont'd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 8)

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

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.

· **Date of preparation / last revision** 09/02/2016 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

(Cont'd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 09/02/2016

Revision: 09/02/2016

**Trade name: Cargille Refractive Index Liquid Series B - nD= 1.641-1.656**

(Cont'd. of page 9)

vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
LDLo: Lowest Lethal Dose Observed  
Asp. Tox. 1: Aspiration hazard – Category 1

**Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))  
Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))  
Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))  
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6  
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.  
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

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