1 Identification

- Product identifier
- Trade name: Cargille Immersion Liquid Code BNDN - nD= 1.657-1.700
- Product code: 19513, 19515, 19517, 19519, 19521, 19523, 19525
- Recommended use and restriction on use
- Recommended use:

This SDS or an accurate copy is an integral part of using Immersion Liquid Code BNDN. Only use Immersion Liquid Code BNDN 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).

For professional and R&D use only. Conditions of Intended Use: (ABBR. C.I.U.) As an Optical Immersion Liquid at normal room pressure 101.32 kPa (760 mm Hg), temperature 7°C to 40°C (45°F to 104°F) in a non misted / non airborne state in a room having 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) 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
  Skin Irrit. 2  H315  Causes skin irritation.
  Eye Irrit. 2A  H319  Causes serious eye irritation.
  STOT SE 3  H335  May cause respiratory irritation.

Label elements
- GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms:

![GHS07](image)

- Signal word: Warning
- Hazard statements:
  H315 Causes skin irritation.

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H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements:
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P271 Use only outdoors or in a well-ventilated area.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
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.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
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

- Components:
  Trade Secret
  Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335
  40-60%

- Additional information:
  For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

4 First-aid measures

- Description of first aid measures
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - 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:
    Coughing
    Breathing difficulty
    Irritating to eyes, respiratory system and skin.
  - Indication of any immediate medical attention and special treatment needed:
    If necessary oxygen respiration treatment.

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If medical advice is needed, have product container or label at hand.

### 5 Fire-fighting measures
- **Extinguishing media**
  - Suitable extinguishing agents: Use fire fighting measures that suit the environment.
  - For safety reasons unsuitable extinguishing agents: None.
- **Special hazards arising from the substance or mixture**
  - During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
- **Additional information:** Cool endangered receptacles with water in flooding quantities.

### 6 Accidental release measures
- **Personal precautions, protective equipment and emergency procedures:**
  - Ensure adequate ventilation.
  - Use personal protective equipment as required.
  - For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions:**
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up:**
  - Pick up mechanically.
  - 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:
    - Use only in well ventilated areas.
    - Prevent formation of aerosols.
    - 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.

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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.
    Wash hands before breaks and at the end of work.
    Avoid breathing mist, vapors, or spray.
    Avoid contact with the eyes and skin.
  - **Engineering controls:** No relevant information available.
- **Breathing equipment:**
  Use suitable respiratory protective device when aerosol or mist is formed.
  Use suitable respiratory protective device when high concentrations are present.
  NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.
- **Protection of hands:**
  Protective gloves
- **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:**
  - Form: Liquid
  - Color: Yellow
  - Odor: Pungent
  - Odor threshold: Not determined.

- **pH-value:** Not determined.
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** >279 °C (>534 °F)
- **Flash point:** >93 °C (>199 °F) (Open Cup)
- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.

### Explosion limits

- **Lower:** Not determined.
- **Upper:** Not determined.
- **Oxidizing properties:** Non-oxidizing.

### Vapor pressure:

Not determined.

- **Density at 20 °C (68 °F):** 1.59 g/cm³ (13.269 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** ca 1, (mineral oil=1)

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.

### Viscosity

- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

### Other information

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:** No dangerous reactions known.
- **Conditions to avoid:** No relevant information available.
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11 Toxicological information

Information on toxicological effects

Acute toxicity:
LD/LC50 values that are relevant for classification: None.
Primary irritant effect:
On the skin: Irritant to skin and mucous membranes.
On the eye: Irritating effect.
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): Irritating to eyes, respiratory system and skin.
Repeated dose toxicity: No relevant information available.
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: May cause respiratory irritation.
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.

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- Persistence and degradability No relevant information available.
- Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- 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, ADR, IMDG, IATA Not regulated.
- UN proper shipping name
  - DOT, ADR, IMDG, IATA Not regulated.
- Transport hazard class(es)
  - DOT, ADR, IMDG, IATA Class Not regulated.
- Packing group
  - DOT, ADR, IMDG, IATA Not regulated.
- Environmental hazards
  - Marine pollutant: No
- Special precautions for user Not applicable.

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- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15 Regulatory information

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

<table>
<thead>
<tr>
<th>Section 302 (extremely hazardous substances):</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients are listed.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Section 355 (extremely hazardous substances):</th>
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</thead>
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<tr>
<td>None of the ingredients are listed.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 313 (Specific toxic chemical listings):</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients are listed.</td>
</tr>
</tbody>
</table>

- 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.

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### 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
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - LDLo: Lowest Lethal Dose Observed
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- **Sources**
  - Website, European Chemicals Agency (echa.europa.eu)
  - Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do)
  - Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
  - 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