1 Identification

- **Product identifier**
- **Trade name:** Cargille Immersion Liquid Code 1160 nD= 1.482 - 1.538
- **Product code:** 19259, 19259-BXS, 19261, 19340, 19561

- **Recommended use and restriction on use**
  - **Recommended use:**
    This SDS or an accurate copy is an integral part of using Immersion Liquid Code 1160. Only use Immersion Liquid Code 1160 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 4°C to 40°C (39°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 1/4 oz (7.4cc), 1 oz (30cc), 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.

- **Restrictions on use:** Contact manufacturer/supplier

- **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**
  Repr. 1 H360 May damage fertility or the unborn child.

- **Label elements**

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

- **Hazard pictograms:**
  ![GHS08](image)

- **Signal word:** Danger

- **Hazard statements:**
  - H360 May damage fertility or the unborn child.

- **Precautionary statements:**
  - P201 Obtain special instructions before use.

(Cont'd. on page 2)
**Safety Data Sheet**

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

Printing date: 11/10/2016

Revision: 11/10/2016

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**Trade name:** Cargille Immersion Liquid Code 1160 nD= 1.482 - 1.538

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P202  Do not handle until all safety precautions have been read and understood.  

P280  Wear protective gloves and eye protection.  

P308+P313 IF exposed or concerned: Get medical advice/attention.  

P405  Store locked up.  

P501  Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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**3 Composition/information on ingredients**

- Chemical characterization: Mixtures

<table>
<thead>
<tr>
<th>Components</th>
<th>Trade Secret Ingredient</th>
<th>Rep. 1B, H360</th>
<th>40-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-68-7</td>
<td>benzyl butyl phthalate</td>
<td>Repr. 1B, H360</td>
<td>40-60%</td>
</tr>
</tbody>
</table>

- Additional information:  
  For the wording of the listed Hazard Statements refer to section 16.  
  For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

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**4 First-aid measures**

- Description of first aid measures
  - **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.  
  - Danger: May damage fertility or the unborn child.  
  - Indication of any immediate medical attention and special treatment needed:  
    If medical advice is needed, have product container or label at hand.

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**5 Fire-fighting measures**

- Extinguishing media
  - Suitable extinguishing agents:  
    Foam  
    Fire-extinguishing powder  
    Gaseous extinguishing agents  
    Carbon dioxide

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(Cont'd. of page 1)

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(Cont'd. on page 3)
Trade name: Cargille Immersion Liquid Code 1160 nD= 1.482 - 1.538

- Water fog / haze
- For safety reasons unsuitable extinguishing agents: Water spray
- Water stream.
- Special hazards arising from the substance or mixture
  Formation of toxic gases is possible during heating or in case of fire.
- Advice for firefighters
- Protective equipment:
  Wear self-contained respiratory protective device.
  Wear fully protective suit.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Ensure adequate ventilation.
  Use personal protective equipment as required.
- 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:
    Prevent formation of aerosols.
    Use only in well ventilated 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.
      No special requirements.
    - Information about storage in one common storage facility:
      Store away from foodstuffs.
      Do not store together with oxidizing and acidic materials.
    - Further information about storage conditions: Storage Temperatures : 39 - 104 °F / 4 - 40 °C.
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.
    Store protective clothing separately.
    Pregnant women should strictly avoid inhalation or ingestion.

- **Engineering controls:** No relevant information available.

- **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.

- **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
    Protection may be required for spills.

- **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:** Colorless
    - **Odor:** Slight Characteristic

(Cont'd. on page 5)
Trade name: Cargille Immersion Liquid Code 1160 nD= 1.482 - 1.538

(Cont'd. of page 4)

- Odor threshold: Not determined.
- pH-value: Not determined.
- Melting point/Melting range: ca. -49 °C (ca. -56 °F)
- Boiling point/Boiling range: >370 °C (>698 °F)
- Flash point: >199 °C (>390 °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: Not determined.
- Vapor pressure: 8.610 mmHg
- Density:
  - Relative density: 1.05 (Water=1)
  - Vapor density: Not determined.
  - Evaporation rate: <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 at 25 °C (77 °F): 41 mm²/s
- 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 Reacts with strong acids and oxidizing agents.
- Conditions to avoid Excessive heat.
- Incompatible materials Oxidizers
- Hazardous decomposition products

Under fire conditions only:

(Cont'd. on page 6)
## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

- **LD/LC50 values that are relevant for classification:**
  - Oral LD50 2330 mg/kg (rat)

#### 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): From product as supplied: None.

#### Repeated dose toxicity: May damage fertility or the unborn child.

#### CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

- **Repr. 1**
  - **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:** May damage fertility or the unborn child.

#### 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** Toxic for aquatic organisms
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

### Ecotoxicological effects:

- **Remark:** Very toxic for fish
### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**
    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

<table>
<thead>
<tr>
<th><strong>UN-Number</strong></th>
<th>Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ADR, IMDG, IATA</strong></td>
<td>UN3082</td>
</tr>
</tbody>
</table>

- **UN proper shipping name**
  - **DOT**
  - **ADR, IATA**
  - **IMDG**

- **Transport hazard class(es)**
  - **DOT**
  - **Class:** Exempt

- **ADR**

<table>
<thead>
<tr>
<th>Class</th>
<th>9 (M6) Miscellaneous dangerous substances and articles</th>
</tr>
</thead>
</table>

(Cont'd. on page 8)
### Safety Data Sheet

**Trade name:** Cargille Immersion Liquid Code 1160 nD= 1.482 - 1.538

<table>
<thead>
<tr>
<th>Label</th>
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<tbody>
<tr>
<td>IMDG, IATA</td>
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</tr>
<tr>
<td><strong>Class</strong></td>
<td>9 Miscellaneous dangerous substances and articles</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>Exempt</td>
</tr>
<tr>
<td><strong>DOT</strong></td>
<td>III</td>
</tr>
<tr>
<td><strong>ADR, IMDG, IATA</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental hazards</strong></td>
<td>Product contains environmentally hazardous substances: benzyl butyl phthalate</td>
</tr>
<tr>
<td><strong>Marine pollutant:</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Symbol (fish and tree)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Special precautions for user</strong></td>
<td>Warning: Miscellaneous dangerous substances and articles</td>
</tr>
<tr>
<td><strong>Danger code (Kemler):</strong></td>
<td>90</td>
</tr>
<tr>
<td><strong>EMS Number:</strong></td>
<td>F-A,S-F</td>
</tr>
<tr>
<td><strong>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Transport/Additional information:</strong></td>
<td>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:</td>
</tr>
<tr>
<td><strong>DOT:</strong> 171.4(c)(2)</td>
<td></td>
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<tr>
<td><strong>ADR:</strong> SP 375</td>
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<tr>
<td><strong>IMDG:</strong> 2.10.2.7</td>
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<tr>
<td><strong>IATA:</strong> special provision A197</td>
<td></td>
</tr>
</tbody>
</table>

### 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.
Trade name: Cargille Immersion Liquid Code 1160 nD = 1.482 - 1.538

- TSCA (Toxic Substances Control Act) (Cont’d. of page 8)
  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:
    85-68-7 benzyl butyl phthalate
  - Carcinogenic categories
    - EPA (Environmental Protection Agency):
      85-68-7 benzyl butyl phthalate C
    - 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 11/10/2016 / -

- 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: 11/10/2016
Revision: 11/10/2016

Trade name: Cargille Immersion Liquid Code 1160 nD= 1.482 - 1.538

(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
Repr. 1: Reproductive toxicity – Category 1
Repr. 1B: Reproductive toxicity – Category 1B

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:
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Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com