1 Identification

- **Product identifier**
- **Trade name:** Cargille Sub-Lux Gel Code 081160C
- **Product code:** 24320, 24330
- **Recommended use and restriction on use**
  - **Recommended use:**
    - This SDS or an accurate copy is an integral part of using Sub-Lux Gel Code 081160C. Only use Sub-Lux Gel Code 081160C 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 a Gel 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 1 oz and 4 oz quantities.
  - **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
- **Signal word:** Danger
- **Hazard statements:**
  - H360 May damage fertility or the unborn child.
- **Precautionary statements:**
  - P201 Obtain special instructions before use.
  - P202 Do not handle until all safety precautions have been read and understood.
  - P280 Wear protective gloves/protective clothing/eye protection.

(Cont'd. on page 2)
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 01/06/2017
Revision: 01/05/2017

Trade name: Cargille Sub-Lux Gel Code 081160C

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.

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

3 Composition/information on ingredients

· Chemical characterization: Mixtures

<table>
<thead>
<tr>
<th>Components</th>
<th>85-68-7 benzyl butyl phthalate</th>
<th>60-80%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Repr. 1B, H360</td>
<td></td>
</tr>
<tr>
<td>68648-93-1</td>
<td>1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters</td>
<td>20-40%</td>
</tr>
<tr>
<td></td>
<td>Repr. 1B, H360</td>
<td></td>
</tr>
<tr>
<td>1333-86-4</td>
<td>carbon black</td>
<td>0.1-1%</td>
</tr>
<tr>
<td></td>
<td>Carc. 2, H351</td>
<td></td>
</tr>
</tbody>
</table>

· Additional information:
For the wording of the listed Hazard Statements refer to section 16.
Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for carbon black note that the substance must be respirable.
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:
    Respiration of particulates is unlikely during normal usage.
    Supply fresh air; consult doctor in case of complaints.
  · After skin contact:
    Immediately wash with water and soap and rinse thoroughly.
    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.
    Nausea in case of ingestion.
  · 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.

(Cont'd. on page 3)
5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents:
    - Foam
    - Gaseous extinguishing agents
    - Carbon dioxide
    - Fire-extinguishing powder
  - For safety reasons unsuitable extinguishing agents: Water

- 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
  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
  Pick up mechanically.
  Send for recovery or disposal in suitable receptacles.
  Dispose unusable material as waste according to item 13.

- 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.
  - 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.
  - Information about storage in one common storage facility:
    Store away from foodstuffs.
    Store away from oxidizing agents.
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Trade name: Cargille Sub-Lux Gel Code 081160C

- Further information about storage conditions:
  Storage Temperatures: 39 - 104 °F / 4 - 40 °C.
  Keep containers tightly sealed.
- Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

- Control parameters
  - Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>1333-86-4 carbon black</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL (USA)</td>
</tr>
<tr>
<td>REL (USA)</td>
</tr>
<tr>
<td>TLV (USA)</td>
</tr>
<tr>
<td>EL (Canada)</td>
</tr>
<tr>
<td>EV (Canada)</td>
</tr>
<tr>
<td>LMPE (Mexico)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Long-term value: 3.5 mg/m^3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL (USA)</td>
<td>Long-term value: 3.5 mg/m^3</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>*0.1 in presence of PAHs; See Pocket Guide Apps.A+C</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 3 mg/m^3</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 3 mg/m^3</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 3.5 mg/m^3</td>
</tr>
<tr>
<td>LMPE (Mexico)</td>
<td>Long-term value: 3 mg/m^3</td>
</tr>
</tbody>
</table>

- 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.
  - Engineering controls: Provide adequate ventilation.
  - Breathing equipment: Not required under normal conditions of use.
  - Protection of hands:
    Thermally-protective gloves.

- Eye protection:
  Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.
- Body protection: Protective work clothing
9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **Appearance:** Gel liquid.
    - **Color:** Translucent
    - **Odor:** Slight
    - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
  - **Melting point/Melting range:** Not determined.
  - **Boiling point/Boiling range:** >370 °C (>698 °F)
  - **Flash point:** >199 °C (>390 °F)
  - **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:** Not determined.
  - **Density:**
    - **Relative density:** 1.11 (water = 1)
    - **Vapor density:** Not determined.
    - **Evaporation rate:** Not determined.
  - **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.
11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
    - **LD/LC50 values that are relevant for classification:**
      - 85-68-7 benzyl butyl phthalate
        - 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):**
    - 1333-86-4 carbon black
    - 2B
  - **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.
    - 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 (carcinogenicity, mutagenicity and toxicity for reproduction)**
    - Repr. 1
  - **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
  - **Carcinogenicity:**
    - Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is nonclassifiable as a carcinogen.
  - **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.

(Cont'd. on page 7)
12 Ecological information

- **Toxicity**
  - *Aquatic toxicity* Toxic to aquatic life with long lasting effects.
- **Persistence and degradability** No relevant information available.
- **Mobility in soil**: No relevant information available.
- **Ecotoxicological effects**:
  - **Remark**: Very toxic for fish.
- **Additional ecological information**
- **General notes**:
  - Do not allow product 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**:
    - 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. Residual materials should be treated as hazardous.
- **Uncleaned packagings**
  - **Recommendation**: Disposal must be made according to official regulations.

14 Transport information

- **UN-Number** Exempt
- **DOT** UN3082
- **ADR, IMDG, IATA**
  - **UN proper shipping name** Exempt
    - **DOT** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl butyl phthalate)
### Trade name: Cargille Sub-Lux Gel Code 081160C

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

#### IMDG, IATA
- Class: 9 (M6) Miscellaneous dangerous substances and articles
- Label: 9

#### Packing group
- DOT
- ADR, IMDG, IATA: Exempt
- Packing group: III

#### Environmental hazards
- Product contains environmentally hazardous substances: benzyl butyl phthalate
- Marine pollutant: Yes
- Symbol (fish and tree)

#### Special precautions for user
- Warning: Miscellaneous dangerous substances and articles
- Danger code (Kepler): 90
- EMS Number: F-A-S-F

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

#### Transport/Additional information:
- Not regulated when carried in single or combination packaging containing a net quantity of 5 L 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

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>None of the ingredients are listed.</td>
</tr>
<tr>
<td>355</td>
<td>None of the ingredients are listed.</td>
</tr>
<tr>
<td>313</td>
<td>None of the ingredients are listed.</td>
</tr>
<tr>
<td>TSCA</td>
<td>All ingredients are listed.</td>
</tr>
</tbody>
</table>

- **Proposition 65 (California)**
  - **Chemicals known to cause cancer:**
    - Reference to carbon black is based on unbound respirable particles and is not generally applicable to product as supplied.

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1333-86-4</td>
<td>carbon black</td>
</tr>
</tbody>
</table>

- **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**

<table>
<thead>
<tr>
<th>Agency</th>
<th>CAS Number</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA</td>
<td>85-68-7</td>
<td>benzyl butyl phthalate</td>
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</tbody>
</table>

- **IARC (International Agency for Research on Cancer):**
  - Reference to carbon black is based on unbound respirable particles and is not generally applicable to product as supplied.

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<td>carbon black</td>
</tr>
</tbody>
</table>

- **NIOSH-Ca (National Institute for Occupational Safety and Health):**
  - 1333-86-4 carbon black

- **Canadian Domestic Substances List (DSL):**
  - All ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Trade name: Cargille Sub-Lux Gel Code 081160C

(Cont’d. of page 9)

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** 01/06/2017 /

- **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
  Carc. 2: Carcinogenicity – Category 2
  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

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