## Section 1. Identification

<table>
<thead>
<tr>
<th>GHS product identifier</th>
<th>Orange Serum Broth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>68109</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>Not available.</td>
</tr>
<tr>
<td>Product type</td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

**Relevant identified uses of the substance or mixture and uses advised against**

- **Identified uses**: Not available.

**Supplier**

- Pall Corporation
  - 25 Harbor Park Drive
  - Port Washington, NY 11050
  - Phone no.: 516-484-5400
  - Toll Free: 1-800-289-7255
  - Fax no.: 516-484-3600
  - Email address: labcustomersupport@pall.com

**Emergency telephone number (with hours of operation)**

- CHEMTREC, U.S.: 1-800-424-9300
- International: 001-703-527-3887
- CCN16658
- (24 hours/day, 7 days/week)

## Section 2. Hazards identification

**OSHA/HCS status**

- While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Classification of the substance or mixture**

- Not classified.

**GHS label elements**

- **Signal word**: No signal word.
- **Hazard statements**: No known significant effects or critical hazards.

**Precautionary statements**

- **Prevention**: Not applicable.
- **Response**: Not applicable.
- **Storage**: Not applicable.
- **Disposal**: Not applicable.
- **Hazards not otherwise classified**: None known.
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

**Description of necessary first aid measures**

**Eye contact**
- Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**
- Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**
- Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.

**Ingestion**
- Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- No specific treatment.

**Protection of first-aiders**
- No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)
### Section 5. Fire-fighting measures

**Extinguishing media**
- Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media: None known.

**Specific hazards arising from the chemical**
- Hazardous thermal decomposition products: Carbon oxides.
- No specific fire or explosion hazard.

**Special protective actions for fire-fighters**
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
- For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up**
- Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Precautions for safe handling:

Protective measures: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters:

Occupational exposure limits: None.

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures:

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Section 9. Physical and chemical properties

- **Appearance**
  - Physical state: Liquid.
  - Color: Light to medium amber, clear to slightly hazy, with or without a precipitate.
  - Odor: Not available.
  - Odor threshold: Not available.
  - pH: 5.4 to 5.8
  - Melting point: Not available.
  - Boiling point: Not available.
  - Flash point: Not available.
  - Evaporation rate: Not available.
  - Flammability (solid, gas): Not available.
  - Lower and upper explosive (flammable) limits: Not available.
  - Vapor pressure: Not available.
  - Vapor density: Not available.
  - Relative density: Not available.
  - Solubility: Completely soluble in water.
  - Partition coefficient: n-octanol/water: Not available.
  - Auto-ignition temperature: Product is not self-igniting.
  - Decomposition temperature: Not available.
  - Viscosity: Not available.
  - Flow time (ISO 2431): Not available.

Section 10. Stability and reactivity

- **Reactivity**: No specific test data related to reactivity available for this product or its ingredients.
- **Chemical stability**: The product is stable.
- **Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid**: Avoid contact with moisture. Keep away from heat, flame, sparks and other ignition sources.
- **Incompatible materials**: Reactive or incompatible with the following materials: oxidizing materials.
- **Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Section 11. Toxicological information

Information on toxicological effects

**Acute toxicity**
There is no data available.

**Irritation/Corrosion**
There is no data available.

**Sensitization**
There is no data available.

**Mutagenicity**
There is no data available.

**Carcinogenicity**
There is no data available.

**Reproductive toxicity**
There is no data available.

**Teratogenicity**
There is no data available.

**Specific target organ toxicity (single exposure)**
There is no data available.

**Specific target organ toxicity (repeated exposure)**
There is no data available.

**Aspiration hazard**
There is no data available.

Information on the likely routes of exposure:

- Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure:

**Short term exposure**
- **Potential immediate effects**: No known significant effects or critical hazards.
- **Potential delayed effects**: No known significant effects or critical hazards.

**Long term exposure**
- **Potential immediate effects**: No known significant effects or critical hazards.

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Section 11. Toxicological information

Potential delayed effects: No known significant effects or critical hazards.
Potential chronic health effects:

| General                        | No known significant effects or critical hazards. |
| Carcinogenicity                | No known significant effects or critical hazards. |
| Mutagenicity                   | No known significant effects or critical hazards. |
| Teratogenicity                 | No known significant effects or critical hazards. |
| Developmental effects          | No known significant effects or critical hazards. |
| Fertility effects              | No known significant effects or critical hazards. |

Numerical measures of toxicity

Acute toxicity estimates
There is no data available.

Section 12. Ecological information

Toxicity
There is no data available.

Persistence and degradability
There is no data available.

Bioaccumulative potential
There is no data available.

Mobility in soil

Soil/water partition coefficient ($K_{OC}$): Not available.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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## Section 14. Transport information

<table>
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<th>DOT Classification</th>
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<td><strong>Packing group</strong></td>
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<tr>
<td><strong>Environmental hazards</strong></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**AERG** : Not applicable

**Special precautions for user** : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.

- **Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed
- **Clean Air Act Section 602 Class I Substances** : Not listed
- **Clean Air Act Section 602 Class II Substances** : Not listed
- **DEA List I Chemicals (Precursor Chemicals)** : Not listed
- **DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304**
No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312 Classification** : Not applicable.

**SARA 313**
There is no data available.

**State regulations**

- **Massachusetts** : None of the components are listed.
- **New York** : None of the components are listed.
- **New Jersey** : None of the components are listed.

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Section 15. Regulatory information

Pennsylvania: None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

Section 16. Other information

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
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</table>

History

Date of issue mm/dd/yyyy: 10/30/2019
Date of previous issue: Not applicable
Version: 1
Prepared by: KMK Regulatory Services Inc.

Key to abbreviations:
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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