SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form: Liquid, mixture
Product name: Lufthansa CityLine Foaming Hand Sanitizer
Product group: Trade product
Product code: ELB-4000/B/2C
Part number: TR-BR40LH series
BAuA Registration No.: N-75748

1.2. Relevant identified uses of the substance or mixture and uses advised against
1.2.1. Relevant identified uses
Use of the substance/preparation: Product for use as a hand biocide

1.2.2. Uses advised against
No data available

1.3. Details of the supplier of the safety data sheet

Home Office:
Celeste Industries Corporation
400 Thames Valley Park Drive
Thames Valley Park
Reading
Berkshire, RG6 1PT, England
Tel +44 (0) 1189 637930
e-mail: info@celestecorp.com

1.4. Emergency telephone number
Emergency contact number: For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident call CHEMTREC (24 hours) within USA and CANADA: 1-800-424-9300
Outside USA and Canada (collect call accepted): 1-703-527-3883

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to CLP Regulation (EC) No 1272/2008
Not classified as hazardous

Adverse physicochemical, human health and environmental effects
Not classified as dangerous for use/supply

2.2. Label elements
Classification according to CLP Regulation (EC) No 1272/2008
Pictograms: None
Signal Word: None
Hazard Statement: None
Precautionary Statements: None

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures
This mixture is a solution containing Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides. The substances classified according to Regulation (EC) 1272/2008 present in this mixture are reported in the following table
The remaining components are either not hazardous or below the reporting threshold.

**SECTION 4: First aid measures**

4.1. Description of first aid measures

First-aid measures after inhalation: If respiratory irritation occurs upon inhalation, remove to fresh air. Seek medical attention if symptoms develop or persist.

First-aid measures after skin contact: Generally not required; rinse with plenty of water if needed.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes.

First-aid measures after ingestion: Seek medical attention immediately. If the person is fully conscious, make him/her drink water. Never give an unconscious person anything to drink. Do not induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: Inhalation of mist or aerosol may cause irritation to nose and throat

Symptoms/injuries after skin contact: Repeated or prolonged direct skin contact may cause irritation or drying of skin.

Symptoms/injuries after eye contact: May cause irritation to the eyes.

Symptoms/injuries after ingestion: May cause irritation to the respiratory tract and to other mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

**SECTION 5: Firefighting measures**

5.1. Extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Non combustible

Reactivity: Stable under normal conditions of use.

5.3. Advice for firefighters

Protective equipment for firefighters: Wear proper protective equipment including including self-contained breathing apparatus.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Ensure adequate ventilation. Avoid contact with eyes.

6.1.1. For non-emergency personnel

Protective equipment: Chemical resistant gloves as needed. Use splash goggles to prevent eye contact as needed.

6.1.2. For emergency responders

Protective equipment: Chemical resistant gloves. Use splash goggles when eye contact due to splashing is possible.

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, dike with dirt, then remove by vacuum truck for disposal.

6.4. Reference to other sections

Refer to sections 8 and 13.
### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

<table>
<thead>
<tr>
<th>Precautions for safe handling</th>
<th>Avoid contact with eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygiene measures</td>
<td>Handle in accordance with good industrial hygiene and safety practice.</td>
</tr>
</tbody>
</table>

#### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Technical measures</th>
<th>Provide adequate ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage condition(s)</td>
<td>Store in dry, cool, well-ventilated area; avoid freezing.</td>
</tr>
</tbody>
</table>

#### 7.3. Specific end use(s)

This product is for use as a hand biocide.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No data available

#### 8.2. Exposure controls

<table>
<thead>
<tr>
<th>Appropriate engineering controls</th>
<th>Ensure adequate ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal protective equipment</td>
<td>Normally not required when used as intended.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hand protection</th>
<th>Product is designed for use on hands.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye protection</td>
<td>Normally not required if used as intended.</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Normally not required if used as intended.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Normally not required if used as intended.</td>
</tr>
</tbody>
</table>

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid, dispenses as a foam</td>
</tr>
<tr>
<td>Colour</td>
<td>Transparent</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 – 7.5</td>
</tr>
<tr>
<td>Relative evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>32 F</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>None</td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.95 - 1.05</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidizing</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

#### 9.2. Other information

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable under normal conditions of use.

#### 10.2. Chemical stability

Stable under normal conditions of use.
10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
No data available

10.5. Incompatible materials
No data available

10.6. Hazardous decomposition products
None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity
No significant harmful effects anticipated.

12.2. Persistence and degradability
Benzalkonium chloride is readily biodegradable.

12.3. Bioaccumulative potential
Benzalkonium chloride is not considered to be bioaccumulative.

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
A chemical safety report has not been carried out.

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Regional legislation (waste) : Dispose of contents/container to comply with applicable local, national and international regulations.
Waste disposal recommendations : Comply with local regulations for disposal.

SECTION 14: Transport information
Not classified as dangerous for transport.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
This safety data sheet has been compiled according to the requirements of Regulation (EC) No 1907/2006.

Benzalkonium chloride is an active substance currently being reviewed in accordance with Regulation (EU) No 528/2012 concerning the placing of biocidal products on the market

15.1.2. National regulations
No data available

15.2. Chemical safety assessment
CSA has not been established

SECTION 16: Other information
Sources of Key data : SDS, ECHA.
Abbreviations and acronyms:

- ACGIH (American Conference of Government Industrial Hygienists)
- ASTM - American Society for Testing and Materials
- CAS - Chemical Abstracts Service
- CLP - Classification, Labelling and Packaging
- CSR - Chemical Safety Report
- EEC - European Economic Community
- EC - European Community
- GHS - Globally Harmonised System
- HMIS - Hazardous Materials Identification System
- MSDS - Material Safety Data Sheet
- OSHA - Occupational Safety and Health Administration
- Overland transport (ADR)
- PEL - Permissible Exposure Level
- REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
- Relative
- SDS - Safety Data Sheet
- STEL - Short-Term Exposure Limit
- TLV - Threshold Limit Value
- TWA - Time Weighted Average

Full text of R-, H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4</th>
<th>Acute toxicity category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosive category 1B</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>Acute aquatic toxicity category 1</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
</tbody>
</table>

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