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

1.1 Product identifier

- Product name: Stellaris® RNA FISH Hybridization Buffer
- Part number: SMF-HB1

1.2 Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.

Application of the substance / the mixture: Reference material for research use only

Manufacturer/Supplier:
- LGC Biosearch, Genomics Ltd
- 2199 South McDowell Blvd.
- Petaluma, CA 94954-6904
- USA

Further information obtainable from:
- Product safety department
eMail: ehs@biosearchtech.com

1.4 Emergency telephone number:
- 1.800.424.9300 (US) (Monday - Friday 9am - 5pm PT)
- +1.703.527.3887 (International)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
- GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
- The product is classified and labelled according to the CLP regulation.

Hazard pictograms
- GHS07

Signal word Warning

Hazard-determining components of labelling:
- Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EINECS 247-500-7) and 2-methyl-2H-isothiazol-3-one (EINECS 220-239-6).

Hazard statements
- H317 May cause an allergic skin reaction.

Precautionary statements
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P321 Specific treatment (see on this label).
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description:
Aqueous solution.
Also contains substances at levels not considered to be hazardous.

Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Description</th>
<th>Percent</th>
<th>RTECS</th>
<th>EINECS</th>
<th>Eye Irr. 2, H319</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-14-5</td>
<td>Sodium chloride</td>
<td>&lt; 2.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>231-598-3</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>VZ4725000</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>55965-84-9</td>
<td>Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EINECS 247-500-7) and</td>
<td>&lt; 0.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-methyl-2H-isothiazol-3-one (EINECS 220-239-6).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:
Supply fresh air and call a doctor.
In case of unconsciousness place patient in recovery position for transport.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.

After eye contact:
Rinse opened eye for several minutes under running water.

After swallowing:
Rinse mouth. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective clothing.

6.2 Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Product name: Stellaris RNA FISH Hybridization Buffer

Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:
Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.
Store only in the original receptacle.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: None.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters
Ingredients 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.

Information about design of technical facilities: No further data; see item 7.

8.2 Exposure controls
Personal protective equipment:

General protective and hygienic measures:
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374

Protective gloves

Material of gloves Nitrile rubber, NBR
- **Penetration time of glove material**
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **Appearance:** Liquid
    - Colour: Colourless
    - Odour: Odourless
    - Odour threshold: Not determined.
  - **pH-value:** Not determined.
  - **Change in condition**
    - Melting point/Melting range: Not determined.
    - Boiling point/Boiling range: 100 °C
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Not determined.
  - **Ignition temperature:** Not determined.
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not self-igniting.
  - **Danger of explosion:** Not determined.
  - **Explosion limits:**
    - Lower: Not determined.
    - Upper: Not determined.
  - **Vapour pressure at 20 °C:** 23 hPa
  - **Density:** Not determined.
  - **Relative density** Not determined.
  - **Vapour density** Not determined.
  - **Evaporation rate** Not determined.
  - **Solubility in / Miscibility with water:** Fully miscible.
  - **Partition coefficient (n-octanol/water):** Not determined.
  - **Viscosity:**
    - Dynamic: Not determined.
    - Kinematic: Not determined.

- **9.2 Other information**
  No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable under normal conditions.
- **10.2 Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
  Formation of toxic gases is possible during heating or in case of fire.
Product name: Stellaris RNA FISH Hybridization Buffer

- **10.3 Possibility of hazardous reactions**: No dangerous reactions known.
- **10.4 Conditions to avoid**: Heat.
- **10.5 Incompatible materials**: Strong oxidizing agents.
- **10.6 Hazardous decomposition products**: Formation of toxic gases is possible during heating or in case of fire.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity**: Based on available data, the classification criteria are not met.
  - **LD/LC50 values relevant for classification**:
    - **7647-14-5 Sodium chloride**
      - Oral LD50 3000 mg/kg (rat)
      - Dermal LD50 10000 mg/kg (rabbit)
    - **55965-84-9 Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EINECS 247-500-7) and 2-methyl-2H-isothiazol-3-one (EINECS 220-239-6)**
      - Oral LD50 53 mg/kg (rat)
  - **Primary irritant effect**:
    - **Skin corrosion/irritation**: Based on available data, the classification criteria are not met.
    - **Serious eye damage/irritation**: Based on available data, the classification criteria are not met.
    - **Respiratory or skin sensitisation**: May cause an allergic skin reaction.
  - **CMR effects (carcinogenity, 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**: 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.

### SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity**: No further relevant information available.
- **12.2 Persistence and degradability**: No further relevant information available.
- **12.3 Bioaccumulative potential**: No further relevant information available.
- **12.4 Mobility in soil**: No further relevant information available.
- **Additional ecological information**:
  - **General notes**: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  - Do not allow undiluted product to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
  - **PBT**: Not applicable.
  - **vPvB**: Not applicable.
- **12.6 Other adverse effects**: No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Product name: Stellaris RNA FISH Hybridization Buffer

- European waste catalogue
  Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

- Uncleaned packaging:
  · Recommendation: Dispose of in accordance with national regulations.
  · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- 14.1 UN-Number
  · ADR, ADN, IMDG, IATA: Not applicable
  · ADR, ADN, IMDG, IATA: Not applicable

- 14.3 Transport hazard class(es)
  · ADR, ADN, IMDG, IATA: Not applicable

- 14.4 Packing group
  · ADR, IMDG, IATA: Not applicable

- 14.5 Environmental hazards:
  Not applicable

- 14.6 Special precautions for user
  Not applicable

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
  Not applicable

- UN "Model Regulation":
  Not applicable

SECTION 15: Regulatory information

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

  · Philippines Inventory of Chemicals and Chemical Substances
    | 7647-14-5 | Sodium chloride |
    | 6132-04-3 | Sodium citrate dihydrate |
    | 55965-84-9 | Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EINECS 247-500-7) and 2-methyl-2H-isothiazol-3-one (EINECS 220-239-6) |
    | 7732-18-5 | Water |

  · Australian Inventory of Chemical Substances
    | 9011-18-1 | Dextran Sulfate, Sodium Salt |
    | 7647-14-5 | Sodium chloride |
    | 6132-04-3 | Sodium citrate dihydrate |
    | 7732-18-5 | Water |

  · Standard for the Uniform Scheduling of Medicines and Poisons
    None of the ingredients is listed.

- Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

- 15.2 Chemical safety assessment:
  A Chemical Safety Assessment has not been carried out.
SECTION 16: Other information

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user’s intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

Abbreviations and acronyms:
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Sources
- Data compared to the previous version altered. All sections have been updated.