SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier: qScript™ XLT cDNA SuperMix
Product Code(s): Catalog numbers: 95161-025, 95161-100, 95161-500

1.2 General Use: Laboratory reagent
Product Description
For Research Use Only, Not for Use in Diagnostic Procedures

1.3 Manufacturer/Supplier
QUANTA BIOSCIENCES INC.
202 PERRY PKWY., SUITE 1
GAITHERSBURG, MD 20877
USA
Phone: +1 (301) 956-1670
FAX: +1 (301) 956-1681
Email: technical.support@quantabio.com
www.quantabio.com

1.4 Emergency Telephone:
Quanta BioSciences: +1 (240) 454-8912 (09:00 to 17:00 EST)
Or contact your local distributor for Quanta BioSciences products.

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008).
Not a hazardous substance or mixture

Classification (67/548/EEC, 1999/45/EC)
Not a hazardous substance or mixture.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008).
Not a hazardous substance or mixture

Additional Labelling:
EUH210 Safety data sheet available on request.

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures
Hazardous components

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>12125-02-9 235-186-4</td>
<td>Xn; R22 Xi; R36</td>
<td>Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Chronic2; H411</td>
<td>&gt;= 1 - &lt; 10</td>
</tr>
<tr>
<td>WEL substance:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>glycerol</td>
<td>56-81-5 200-289-5</td>
<td></td>
<td></td>
<td>&gt;= 20 - &lt; 50</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures:
General advice: Show this safety data sheet to the doctor in attendance.
If inhaled: Move to fresh air.
In case of skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
If symptoms persist, call a physician.
In case of eye contact: Remove contact lenses.
Protect unharmed eye.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: If accidentally swallowed obtain immediate medical attention.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed:
Symptoms: No information available.

4.3 Indication of any immediate medical attention and special treatment needed:
Treatment: No information available.

SECTION 5 – FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture
Specific hazards during firefighting: Exposure to decomposition products may be a hazard to
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Hazardous combustion products
No hazardous combustion products are known

5.3 Advice for firefighters
Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.
Further information
In the event of fire and/or explosion do not breathe fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions
Use personal protective equipment. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

6.2 Environmental precautions

6.3 Methods and material for containment and cleaning up
Methods for cleaning up
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For personal protection see section 8.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling
For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Advice on protection against fire and explosion
Normal measures for preventive fire protection.
Hygiene measures
Keep away from food and drink. When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities
Advice on common storage
Do not store near acids.
Other data
No decomposition if stored and applied as directed.

7.3 Specific end use(s)
Specific use(s)
Laboratory chemicals.
SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>56-81-5</td>
<td>VME (aerosol)</td>
<td>10 mg/m³</td>
<td>FR VLE</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Indicative exposure limits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ammonium chloride</td>
<td>12125-02-9</td>
<td>VME (Fumes)</td>
<td>10 mg/m³</td>
<td>FR VLE</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Indicative exposure limits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls:

Personal protective equipment

Eye protection: Safety glasses.

Hand protection: The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Gloves.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place. Footwear protecting against chemicals.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance: liquid

Colour: clear

Odour: no data available

Odour threshold: no data available

pH: 8,3, (22°C)

Melting/freezing point: no data available

Initial boiling point & boiling range: no data available

Flash point: no data available

Evaporation rate: no data available
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>no data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Completely soluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>no data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>no data available</td>
</tr>
</tbody>
</table>

### 9.2 Other information:
no data available

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## SECTION 10 – STABILITY AND REACTIVITY

### 10.1 Reactivity:
No decomposition if stored and applied as directed.

### 10.2 Chemicals stability
No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions
- **Hazardous reactions:** Stable under recommended storage conditions
- **Hazardous decomposition products formed under fire conditions:**

### 10.4 Conditions to avoid
- **Conditions to avoid:** no data available

### 10.5 Incompatible materials
- **Materials to avoid:** no data available
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10.6 Hazardous decomposition products
Hazardous decomposition products  no decomposition if stored and applied as directed

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Product:
Acute oral toxicity  no data available
Acute inhalation toxicity  no data available
Acute dermal toxicity  no data available

Components:

ammonium chloride:
Acute oral toxicity  LD50 Oral rat: 1.650 mg/kg

glycerol:
Acute oral toxicity  LD50 Oral rat: 12.000 mg/kg
Acute dermal toxicity  LD50 Dermal rabbit: 10.000 mg/kg

Skin corrosion/irritation
Product:
Remarks:
May irritate eyes

Components:

glycerol:
Species: rabbit
Exposure time: 24 hours
Result: Mild eye irritation

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

STOT – single exposure
no data available
STOT – repeated exposure
no data available

Aspiration toxicity
no data available

Further information
no data available

SECTION 12 – EXOLOGICAL INFORMATION

12.1 Toxicity

**Product:**
- Toxicity to fish: no data available
- Toxicity to algae: no data available
- Toxicity to bacteria: no data available

**Components:**
- ammonium chloride:
  - Toxicity to fish: LC50 (Ceriodaphnia (water flea)): 209 mg/l, Exposure time: 96 hours
  - LC50 (Oncorhynchus mykiss (rainbow trout)): 3.98 mg/l, Exposure time: 96 hours
  - Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 161 mg/l, Exposure time: 48 hours

- glycerol:
  - Toxicity to fish: LC0 (Leuciscus idus (Golden orfe)): > 250 mg/l, Exposure time: 48 hours

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential

**Product:**
- Bioaccumulation: no data available
- Partition coefficient: n-octanol/water: no data available

12.4 Mobility in soil
no data available
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12.5 Results of PBT and vPvB assessment
Product: qScript™ XLT cDNA SuperMix
Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Product: qScript™ XLT cDNA SuperMix
Additional ecological information: no data available

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:
Product: qScript™ XLT cDNA SuperMix
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 – TRANSPORT INFORMATION

14.1 UN number
Not regulated as a dangerous good

14.2 Proper shipping name
Not regulated as a dangerous good

14.3 Transport hazard class
Not regulated as a dangerous good

14.4 Packing group
Not regulated as a dangerous good

14.5 Environmental hazards
Not regulated as a dangerous good

14.6 Special precautions for user
Remarks: Not classified as dangerous in the meaning of transport regulations

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.
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SECTION 15 – REGULATORY INFORMATION

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

- REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
- Regulation (EC) No 689/2008 of the European Parliament and the Council concerning the export and import of dangerous chemicals
- REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).
- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer - Annex I Controlled substances covered
- Regulation (EC) No 850/2004 on persistent organic pollutants
- Occupational Illnesses (R- 461-3, France) 67

15.2 Chemical Safety Assessment
no data available

SECTION 16 – OTHER INFORMATION

SDS Status: Version 1.0
Changes

Full text of R-phrases
R22 Harmful if swallowed
R36 Irritating to eyes

Full text of H-Statements
H302 Harmful if swallowed
H319 Causes serious eye irritation
H411 Toxic to aquatic life with long lasting effects

Full text of abbreviations
Acute Tox. Acute toxicity
Aquatic Chronic Chronic aquatic toxicity
Eye Irrit. Eye irritation

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