1. IDENTIFICATION

Product Identifier

Product Name  Tricine-EDTA Buffer

Other means of identification

Product Code  ST0099
Synonyms  No information available

Recommended use of the chemical and restrictions on use

Identified uses  For research use only. Not for use in diagnostic procedures.
Uses advised against  No information available

Details of the supplier of the safety data sheet

Supplier  USA:
Takara Bio USA, Inc.
1290 Terra Bella Avenue
Mountain View, CA 94043
Phone: 800.662.2566/888.251.6618
Web: www.clontech.com

Emergency telephone number  In case of emergency, call PERS (Professional Emergency Resource Services)
1-800-633-8253 (US) or 801-629-0667 (international).

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance  Clear, colorless solution  Physical State  Liquid  Odor  Odorless

Precautionary Statements - Prevention
Not applicable

Precautionary Statements - Response
Not applicable.

Precautionary Statements - Storage
Not applicable.
Precautionary Statements - Disposal
Not applicable.

Hazards not otherwise classified (HNOC)
Not applicable

Other information
Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

4. FIRST AID MEASURES

Description of first aid measures

General advice
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash off immediately with plenty of water for at least 15 minutes.

Inhalation
Move to fresh air.

Ingestion
Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Not an expected route of exposure

Most important symptoms and effects, both acute and delayed

Main Symptoms
No information available.

Indication of any immediate medical attention and special treatment needed

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

Unsuitable Extinguishing Media
Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical
No information available.

Explosion Data
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation.

Environmental precautions

Environmental precautions
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products
None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Measures
Shower
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Safety glasses with side-shields.

Skin and body protection
Wear suitable protective clothing. Protective shoes or boots.

Respiratory protection
None required under normal usage.

Hygiene measures
When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Liquid
<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH VALUE</td>
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</tr>
<tr>
<td>Melting point / freezing point</td>
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</tr>
<tr>
<td>Boiling point / boiling range (°C)</td>
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</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
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<tr>
<td>Lower flammability limit:</td>
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</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Water Solubility</td>
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</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No information available</td>
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<tr>
<td>Viscosity, dynamic</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No information available</td>
</tr>
</tbody>
</table>

### Appearance
- Clear, colorless solution

### Odor and Odor Threshold
- Odor: Odorless
- Odor Threshold: No information available

### Other information
- Softening point: No information available
- Molecular Weight: No information available
- VOC Content (%): No information available
- Density VALUE: No information available
- Bulk Density: No information available

### 10. STABILITY AND REACTIVITY

#### Reactivity
- No data available

#### Chemical stability
- Stable under recommended storage conditions.

#### Possibility of hazardous reactions
- **Hazardous Reactions**: None under normal processing.
- **Hazardous Polymerization**: Hazardous polymerization does not occur.

#### Conditions to Avoid
- None known based on information supplied.

#### Incompatible Materials
- None known based on information supplied.

#### Hazardous Decomposition Products
- None known based on information supplied.
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
Product does not present an acute toxicity hazard based on known or supplied information

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Sensitization: No information available.
- Mutagenic effects: No information available.
- Carcinogenicity: No information available.

- Reproductive toxicity: No information available.
- STOT - Single Exposure: No information available.
- STOT - Repeated Exposure: No information available.
- Target Organ Effects: No information available.
- Aspiration Hazard: No information available.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Ecotoxicity
0.9962 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

- Waste Disposal Methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

- Contaminated packaging
Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION
| DOT   | Not regulated |
| TDG   | Not regulated |
| MEX   | Not regulated |
| ICAO  | Not regulated |
| ICAO/IATA | Not regulated |
| IMDG/IMO | Not regulated |
| RID   | Not regulated |
| ADR/RID | Not regulated |
| ADN   | Not regulated |

### 15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>For research use only</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
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</tr>
<tr>
<td>ENCS</td>
<td>-</td>
</tr>
<tr>
<td>IECSC</td>
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</tr>
<tr>
<td>KECL</td>
<td>-</td>
</tr>
<tr>
<td>PICCS</td>
<td>-</td>
</tr>
<tr>
<td>AICS</td>
<td>-</td>
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</tbody>
</table>

**Legend:**
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Acute Health Hazard</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
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</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

#### CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and chemical hazards</th>
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<td>Flammability</td>
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</tr>
<tr>
<td>Instability</td>
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HMIS
<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal protection</th>
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<tbody>
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Issuing Date 2016-07-21
Revision Date 2016-07-21
Revision Note No information available

Disclaimer
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End of Safety Data Sheet