SAFETY DATA SHEET
TRIETHYL CITRATE NATURAL

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name: Triethyl Citrate Natural
INCI Name: Triethyl Citrate
CAS Number: 77-93-0

Company: Kraft Chemical Company
Melrose Park, IL 60160
Phone: 708-345-5200
Fax: 708-345-4005

Emergency Contact: Chemtrec: 800-424-9300

2. HAZARD IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Acute toxicity, Inhalation (Category 4) H332

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xn Harmful R20

For the full text of the R-phrases mentioned in this Section, see Section 15.

Label elements
Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram:

Signal word: Warning

Hazard statement(s)
H332: Harmful if inhaled.

Precautionary statement(s):
None

Supplemental Hazard Statements:
None

Other hazards:
None
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INCI NAME</th>
<th>CAS NO.</th>
<th>CONCENTRATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethyl Citrate</td>
<td>77-93-0</td>
<td>≥99%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin Contact: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid.

After Ingestion: Get medical aid. Wash mouth out with water.

5. FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Special method of fire-fighting: Cool endangered containers with water spray; Containers may explode when heated.

6. ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Normal measures for preventive fire protection.

Storage: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Technical measures: Local exhaust ventilation necessary

Take precautionary measures against electrostatic charging
Processing in closed systems, if possible superposed by inert gas (e.g. nitrogen).

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Respiratory protection: In case of olfactory nuisance: respirator with independent air supply or mask with activated charcoal filter

Eyes: Safety glasses
Hand: Protective gloves
Skin: Wear appropriate protective clothing to prevent skin exposure

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Oily liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless to pale yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Bitter taste; little odor</td>
</tr>
<tr>
<td>pH value at 10g/l H₂O</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling point</td>
<td>235°C at 200 hPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>155°C – closed cup</td>
</tr>
<tr>
<td>Melting point</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>N/A</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>1 hPa at 107°C</td>
</tr>
<tr>
<td>Specific gravity (25°C)</td>
<td>1.135 – 1.139</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Organic solvents</td>
<td>Slightly soluble</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Ignition sources, excess heat, freezing temperatures, confined

Substances to be avoided: Metals, strong oxidizing agents, strong bases.

Hazardous decomposition: Carbon dioxide, carbon monoxide.

Hazardous: Will not occur.
11. TOXICOLOGICAL INFORMATION

Acute toxicity:
- LD50 Oral - rat - 5,900 mg/kg
- LC50 Inhalation - rat - 6 h - 1300 ppm
- LD50 Dermal - rabbit - > 5,000 mg/kg

Sensitization: No information available.

Mutagenicity: No information available.

Other Studies: See actual entry in RTECS for complete information.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues: Observe local/national regulations regarding waste disposal
Incinerate in qualified installation with flue gas scrubbing

14. TRANSPORT INFORMATION

UN number
ADR/RID: -
IMDG: -
IATA: -

Shipping Name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Hazard Class
ADR/RID: -
IMDG: -
IATA: -

Packing Group
ADR/RID: -
IMDG: -
IATA: -

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or Mixture: no data available
Chemical Safety Assessment: no data available

Full text of R-phrases referred to under sections 2
Xn: Harmful
R20: Harmful by inhalation

16. OTHER INFORMATION

All statements, technical information and recommendations contained herein are based on tests and data which Kraft Chemical Company believes to be currently reliable, but this accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto. This information is not intended as a license to operate under or a recommendation to practice or infringe any patent of this company or others covering any process, composition of matter or use. Since we shall have no control of the use of the product described here in, we assume no Liability for loss or damage incurred from the proper or improper use of such product.