

# Triethyl Citrate

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This document provides a brief description of Triethyl Citrate, its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS Corporation safety data sheet.

## Identification

<b>Chemical Name:</b>	Triethyl citrate	
<b>Synonym(s):</b>	1,2,3-Propanetricarboxylic acid Citric acid, triethyl ester Ethyl citrate	
<b>CAS Number:</b>	77-93-0	
<b>Applicable LANXESS Materials:</b>	Uniplex 80	Purolan TEC
	Purolan TEC I	Purolan TEC-C

## Description

<b>Overview:</b>	Triethyl citrate is a clear, colorless organic liquid at room temperature. The product has a slight, characteristic odor.	
<b>Uses:</b>	This component is sold by LANXESS for use as a plasticizer in the manufacturer of plastics and other industrial products. The organic compound is also used as an additive in a wide range of foods, pharmaceutical products and personal care products, including perfumes, body sprays, lotions and hairsprays.	
<b>Properties:</b>	<b>Solubility in Water:</b>	Soluble
	<b>Boiling Point:</b>	260 °C (500°F)
	<b>Flash Point:</b>	Open cup: 150.56°C (303°F)

### Potential Human Health Effects

#### Occupational Exposure

Potential for occupational exposure exists during manufacture, and in unloading, storage, staging and transfer operations at facilities using the substance as an additive. A much lower potential for exposure exists in facilities using triethyl citrate in closed manufacturing processes by trained personnel.

#### Employee Training

Workers handling triethyl citrate should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. In cases where ventilation is insufficient or airborne concentrations are unknown, a NIOSH approved, air-purifying organic vapor respirator should be used. In addition, it is recommended that splash proof goggles and permeation resistant gloves, clothing and foot protection be worn when handling liquid materials.

#### Consumer Exposure

LANXESS Corporation does not sell triethyl citrate to the general public. Consumers may be exposed to the organic compound through ingestion of foods and pharmaceutical products or use of personal care products manufactured by downstream customers using triethyl citrate as an additive.

#### Short-Term Health Effects

No known significant effects or critical hazards. Exposure in sufficient quantities may be irritating to the eyes and respiratory tract.

#### Long-Term Health Effects

No known significant effects or critical hazards.

### Physical Hazards

This material is stable under normal conditions of use. Avoid contact with strong oxidizing agents. Heating to decomposition may release carbon monoxide and carbon dioxide. Avoid heat, open flames and other potential sources of ignition.

### Potential Environmental Impact

As manufactured, triethyl citrate is readily biodegradable. An accidental release to the environment may pose a danger to fish (low toxicity), invertebrates (low toxicity) and other aquatic organisms (low toxicity) prior to degradation. Triethyl citrate is not expected to adsorb to suspended solids and sediment or accumulate in the tissues of aquatic organisms.

### Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, Uniplex 80 is not expected to pose a significant risk to human health or the environment.

### References

*European Chemicals Agency, Triethyl Citrate*, December 2017

*Plastics Additives Business Product Brochure: Plasticizers*, LANXESS Corporation, 2012

*Safety Data Sheet (SDS), Uniplex 80*, LANXESS Corporation

### Contact Information

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### Notices

#### Use and Application Information

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.