

Safety Data Sheet

HEALTH	0
FLAMMABILITY	1
REACTIVITY	0

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name	Triethyl Citrate, Natural
Product Number	0308300
CAS-No.	77-93-0
EC No.	201-070-7

1.2 Product Recommended Use

Flavorings

1.3 Preparation Information

Company	Aurochemicals 7 Nicoll Street Washingtonville, NY 10992
Telephone	845-496-6065
Fax	845-496-6248

1.4 Emergency Telephone Number

1-800-535-5053
International - 1-352-323-3500 collect

Section 2: HAZARD(s) IDENTIFICATION

2.1 Classification of substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Not a hazardous substance or mixture

2.2 GHS Label Elements, Including precautionary statements

Pictogram	None
Signal Statement	None
Hazard Statement(s)	None
Precautionary Statement(s)	None

2.3 HNOC (Hazards not otherwise classified or not covered by GHS –None

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Formula	C ₁₂ H ₂₀ O ₇
Molecular Weight	276.28 g/mol
CAS-No	77-93-0
EC-No.	201-070-7

No ingredients are hazardous according to OSHA criteria and none need to be disclosed according to the applicable regulations

Section 4: FIRST AID MEASURES

Safety Data Sheet

4.1 Description of first aid measures

General advice

Consult physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area

Inhalation

Provide fresh air; keep at rest and at a comfortable position to breathe. Consult a physician

Contact with skin:

Remove contaminated clothing. Rinse skin with cool water then wash with mild soap and warm water and contact a physician.

Contact with eyes:

Rinse thoroughly with plenty of water for at least 15 as a precaution.

Ingestion

DO NOT induce vomiting. Never give anything by mouth to an unconscious person.

Rinse mouth with water. Consult a physician.

Remove contaminated clothing and wash before reuse.

Clothing contamination:

See section 2.2 and or section 11

4.2 Most important symptoms and effects both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media

For small (incipient) fires, use media such as alcohol foam, dry chemical, or carbon dioxides. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for fire fighters

Wear self contained breathing apparatus for firefighting if necessary. Emits toxic fumes under fire conditions

5.4 Further information

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surfaces

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe area.

6.2 Environment precautions

Prevent further leakage or spillage if safe to do so. Do not allow to enter drains or sewage system.

6.3 Methods and materials for containment and clean up

Contain spillage. Sweep up with broom and shovel. Place in a suitable, closed container for disposal.

6.4 Specific end use(s)

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes and clothing. Avoid Inhalation of vapor or mist. Keep away from sources of ignition-No Smoking.

7.2 Conditions for Safe storage

Keep container tightly closed in a cool, dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific End use(s)

Flavorings

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values

8.2 Exposure Controls

Appropriate Engineering Controls

Safety Data Sheet

Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product; before breaks and at the end of the day.

Personal protective equipment

These recommendations are advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situations of anticipated use by our customers. They should not be construed as offering an approval or any specific use scenario.

Eye/face protection	Wear appropriate safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Skin protection	Wear chemically resistant, Nitrile rubber gloves, 0.2mm, when handling this product. Use proper glove removal techniques (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.
Body protection	Impervious clothing, protecting against chemicals, should be selected specifically for the work place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
Respiratory protection	Where risk assessment shows air purifying respirators are appropriate use a full face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a back up to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate governmental standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a	Appearance	Liquid- Clear oily Colorless to pale yellow
b	Odor	Faint wine, plum
c	Odor Threshold	No data available
d	pH	No data available
e	Melting Point /Freezing Point	No data available
f	Boiling Point	260oC
g	Flash Point	110°C closed cup
h	Evaporation Rate	No data available
i	Flammability (Solid, Gas)	No data available
j	Upper/lower Flammability Limit	No data available
k	Vapor pressure	No data available
l	Vapor density	No data available
m	Relative density at 25oC	1.136-1.148
n	Solubility	Very slightly soluble in water Soluble in most organic solvents
o	Partition coefficient: n-octanol/water	No data available

Safety Data Sheet

p	Auto-ignition Temp.	355 °C
q	Decomposition Temp.	No data available
r	Viscosity	No data available
s	Explosive properties	No data available
t	Oxidizing properties	No data available

9.2 Other Safety Information No data available

Section 10: STABILITY AND REACTIVITY

10.1	Reactivity	No data available
10.2	Chemical Stability	Stable under recommended storage conditions
10.3	Possibility of Hazardous reactions	No data available
10.4	Conditions to avoid	Heat, Flames, Sparks
10.5	Incompatible materials	Strong oxidizing agents
10.6	Hazardous decomposition products	No data available
10.7	Further Information	No data available

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

LD50-Oral –Rat

5,900 mg/kg

Remarks: Behavioral: Altered sleep time (including changes in righting reflex)
Respirator disorder; Nutritional and Gross Metabolic Changes in body temperature decrease

LC50-Inhalation-Rat

1,300 mg/kg

Remarks: Lungs, Thorax or Respiration: Acute pulmonary edema; Dyspnea

LD50-Dermal –Rabbit

>5,000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ Cell mutagenicity

No data available

Carcinogenicity

IARC No component of this product, present levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH No component of this product, present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP No component of this product, present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA No component of this product, present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity-single exposure (GHS)

No data available

Specific target organ toxicity-repeated exposures (GHS)

No data available

Aspiration Hazards

No data available

Safety Data Sheet

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

Synergistic effect

No data available

RTECS:

GE8050000

Section 12: ECOLOGICAL INFORMATION

12.1	Toxicity	No data available
12.2	Persistence and degradability	No data available
12.3	Bioaccumulative potential	No data available
12.4	Mobility in soil	No data available
12.5	Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required / not conducted
12.6	Other adverse effects	No data available

Section 13: DISPOSAL CONSIDERATIONS

13.1	Disposal methods	
	Product:	According to local regulations
	Packaging	According to local regulations

Section 14: TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

Section 15: REGULATORY INFORMATION

Reach No.	A registration number is not available for this substance as its uses are exempted from registration, the annual tonnage not require a registration or the registration is envisaged for a later registration deadline.		
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302		
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.		
SARA 311/312 Hazards	No SARA Hazards		
Massachusetts Right to Know components	No components are subject to the Massachusetts Right to Know Act		
Pennsylvania Right to Know components	Triethyl Citrate	CAS# 77-93-0	Rev. Date:
New Jersey Right to Know components	Triethyl Citrate	CAS# 77-93-0	Rev. Date:
California Prop. 65 components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.		

Safety Data Sheet

Section 16: OTHER INFORMATION

HMIS Rating

Health hazard 0
Chronic Health Hazard
Flammability 1
Physical Hazard 0

Further Information

Aurochemicals provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Aurochemicals makes no representations or warranties, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Aurochemicals will not be responsible, nor held liable, for damages resulting from use of or reliance upon this information.

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