

according to Regulation (EC) No 1907/2006

Citraton

Revision date: 22.06.2018

Product code: 991020

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Citraton

REACH Registration Number: 01-2119955435-32-XXXX

CAS No: 77-93-0

EC No: 201-070-7

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Manufacture of cosmetics

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Satcotek GmbH

Street: Gotenstrasse 13

Place: D-20097 Hamburg

Telephone: +49(0)40-5303669711

Telefax: +49(0)40-5303669766

Internet: www.satcotek.com

Responsible Department: info@satcotek.com

1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

2.3. Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
77-93-0	triethylcitrate			>99 %
	201-070-7		01-2119955435-32-XXXX	

Full text of H and EUH statements: see section 16.

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

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SECTION 4: First aid measures
4.1. Description of first aid measures
General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

Carbon dioxide (CO₂). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide, Carbon dioxide (CO₂).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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SECTION 7: Handling and storage
7.1. Precautions for safe handling
Advice on safe handling

Wear suitable protective clothing. See section 8.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 20°C

Protect against: Light. UV-radiation/sunlight. heat. moisture.

7.3. Specific end use(s)

refer to chapter 1.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
77-93-0	triethylcitrate			
Worker DNEL, long-term		inhalation	systemic	73,5 mg/m ³
Worker DNEL, long-term		dermal	systemic	20,8 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	28,8 mg/m ³
Consumer DNEL, long-term		dermal	systemic	12,5 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	12,5 mg/kg bw/day

PNEC values

CAS No	Substance		
Environmental compartment			Value
77-93-0	triethylcitrate		
Freshwater			0,124 mg/l
Marine water			0,018 mg/l
Secondary poisoning			222,22 mg/kg
Soil			0,049 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

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8.2. Exposure controls

Appropriate engineering controls

No special measures are necessary.

Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time \geq 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time \geq 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Environmental exposure controls

No special precautionary measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	characteristic
pH-Value:	not determined

Changes in the physical state

Melting point:	-40 °C
Initial boiling point and boiling range:	287 °C
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	155 °C
Sustaining combustion:	Not sustaining combustion

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Explosive properties

none

Lower explosion limits:

not determined

Upper explosion limits:

not determined

Ignition temperature:

not determined

Auto-ignition temperature

Gas:

not determined

Decomposition temperature:

not determined

Oxidizing properties

none

Vapour pressure:

0,003 hPa

(at 25 °C)

Density:

1,14 g/cm³

Water solubility:

58,1 g/L

Solubility in other solvents

not determined

Partition coefficient:

not determined

Viscosity / dynamic:

not determined

Viscosity / kinematic:

not determined

Flow time:

not determined

Vapour density:

not determined

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

9.2. Other information

Solid content:

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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Toxicokinetics, metabolism and distribution

No data available.

Acute toxicity

Based on available data, the classification criteria are not met.

No data available.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
77-93-0	triethylcitrate				
	oral	LD50 4000 mg/kg	Cat.	ECHA Dossier	
	dermal	LD50 >5000 mg/kg	Rabbit.	RTECS	

Irritation and corrosivity

Based on available data, the classification criteria are not met.

No data available

Sensitising effects

Based on available data, the classification criteria are not met.

No data available.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

No data available.

STOT-single exposure

Based on available data, the classification criteria are not met.

No data available.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Chronic dermal toxicity:

Method: (oral.) OECD Guideline 453 Combined Chronic Toxicity / Carcinogenicity Studies); Species: Rat;

Length of test: 2 years; Result: NOAEL = 600 mg/kg; Literature information: ECHA Dossier

Aspiration hazard

Based on available data, the classification criteria are not met.

No data available.

Specific effects in experiment on an animal

No data available.

SECTION 12: Ecological information

12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
77-93-0	triethylcitrate					
	Acute algae toxicity	ErC50 >100 mg/l	72 h	Pseudokirchnerella subcapitata (OECD 201)	ECHA Dossier	
	Acute crustacea toxicity	EC50 >100 mg/l	48 h	Daphnia magna (OECD 202)	ECHA Dossier	

12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
77-93-0	triethylcitrate			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	78%	28	ECHA Dossier
	Product is biodegradable.			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
77-93-0	triethylcitrate	1,17

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

Waste disposal number of used product

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

Waste disposal number of contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

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14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 0%

2004/42/EC (VOC): 0 g/L

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII: not relevant

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Changes

Rev. 1.0; Initial release: 22.06.2018

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service

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DNEL: Derived No Effect Level
 IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 LOAEL: Lowest observed adverse effect level
 LOAEC: Lowest observed adverse effect concentration
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 NOAEL: No observed adverse effect level
 NOAEC: No observed adverse effect level
 NTP: National Toxicology Program
 N/A: not applicable
 OSHA: Occupational Safety and Health Administration
 PNEC: predicted no effect concentration
 PBT: Persistent bioaccumulative toxic
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 SARA: Superfund Amendments and Reauthorization Act
 SVHC: substance of very high concern
 TRGS Technische Regeln fuerGefahrstoffe
 TSCA: Toxic Substances Control Act
 VOC: Volatile Organic Compounds
 VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe
 WGK: Wassergefaehrungsklasse

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:
 Health hazards: Calculation method.
 Environmental hazards: Calculation method.
 Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.