

Safety Data Sheet

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According to Regulation (EC) No 1907/2006

Issue date : March 30, 2012

Revision # 1 date : March 20, 2020

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

1.1 Identification of the substance :

Trade name:	Tripotassium citrate
Chemical name:	<i>Tripotassium-2-hydroxypropane-1,2,3-tricarboxylate monohydrate</i>
Identification number:	CAS No: 6100-05-6
Registration number:	01-2119457580-38-xxxx

1.2 Use of the substance :

Identified uses:	Food/ feedstuff additives, Pharmaceutical substance, pH-regulating agents, Food additive,
Unrecommended uses:	Not identified

1.3 Company/undertaking identification :

Macco Organiques, s. r.o.

Zahradní 46c, 792 01 Bruntál, Czech Republic

IČ : 26819210 , phone: +420 – 555 – 530 334

SDS provider's contact: Jaroslav Zavadil , phone: +420 – 555 – 530 340, jaroslav.zavadil@macco.cz

1.4 Emergency telephone:

The first aid details may be consulted with toxicological information centre (TIS): Job-related illness clinic, Na Bojišti 1, 128 08 Praha 2, tel. 2 24 91 92 93 or 2 24 91 54 02. Permanent poisoning informations.

2: Hazard identification

The substance is **NOT** classified as dangerous according to Directive 1272/2008/ES.

2.1 Classification of the substance:

Acc. to Directive 1272/2008/ES	---
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The most important adverse physicochemical, human health and environmental effects and symptoms :

Not specified

2.2 Information on the label:

Hazard pictogram	---	Signal word	---
Hazard statements	---		
Precautionary statements	---		
Additional information on label	none		

2.3 Other dangerousness:

The PBT or vPvB criteria of Annex XIII to the Regulation does not apply to inorganic substances.

3: Composition / information on ingredients

3.1 Substance

3.1.1 Constituent

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
Tripotassium citrate	none	6100-05-6	212-755-5	99 - 100%	So far none

3.1.2 Impurities, stabilizers,

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
none	---	---	---	---	---

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4: First aid measures

In all cases provide the physical and mental rest and avoid of getting chilled. In case of health problems or doubts inform physician and provide him with the information contained in this safety data sheet. Never pass a medication to a unconscious person. Maintain personal safeness during rescue operation.

4.1 First aid description:

If inhaled:

Stop exposition, move the afflicted person to the fresh air, keep him warm and at rest. If symptoms persist seek medical attention. In case of unconsciousness start with resuscitation (artificial respiration, cardiac massage) and call for medical attention.

In the event of skin contact:

Remove contaminated clothes and footwear. Wash of any skin contamination with cool water and soap. Launder clothes before re-use. In case of persisting irritation contact physician .

In the event of eye contact:

Remove contact lenses if present. Immediately flush with plenty of lukewarm water for at least 15 minutes. Avoid strong stream of water due to the risk of mechanical damage to the cornea. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention.

Do not use neutralization solution!

If swallowed:

Wash out mouth with water and give plenty of water to drink (at least 300 ml). Do not induce vomiting. Seek medical attention. When vomiting, maintain supervision until the help arrives. Obtain medical advice if symptoms persist.

4.2 The most important acute and belated symptoms and effects:

No information available.

4.3 Immediate medical help instruction and special treatment:

No information available.

5: Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Water, water spray, dry powder, carbon dioxide (CO₂), foam

Not suitable extinguishing media :

Strong water jet

5.2 Specific hazards :

Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products may be formed under fire conditions (see section 10). Exposure to decomposition products may be a hazard to health.

5.3 Special protective actions for fire-fighters:

Put on gas-tight protective clothing and breathing apparatus functioning independently of the ambient air.

6: Accidental release measures

6.1 Personal precautions:

Use personal safety working clothes – section 8. Prevent from skin and eye contact. Do not inhale dust. Well ventilate areas. Prevent from dust making. Other safety precautions – section 7.

6.2 Environmental precautions:

Prevent from escape to watercourses and soil and from their contamination. If there is no way to avoid it, immediately inform appropriate authority (police and firemen).

6.3 Methods for cleaning up:

Clean up contamination/spillages as soon as they occur. Collect as much as possible in a suitable clean container, preferably for re-use, otherwise for disposal (according section 13). Avoid generation of dust. Wash the spillage area with large quantities of water. When packaging is damaged, replace the amount into a new packaging with proper marking.

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6.4 Other sections references:

Also follow the regulations in sections 8 and 13 of this safety data sheet.

7: Handling and storage

7.1 Handling:

Use the personal safety tools (section 8). Ensure fresh water for the first aid. Maintain the cleanness and tidiness on the working area. Provide basic employee training to prevent / minimize exposures and to report any healthy problems that may develop. Do not eat, drink or smoke during work. Avoid contact with skin and eyes. Wash hands duly with soap and water, take a shower. Use a body lotion.

7.2 Storage:

Store at a dry and well ventilated place, not above temperature 30 °C / 86 °F. Store in tightly closed packages.

7.3 Specific uses:

Food/ feedstuff additives, Pharmaceutical substance, pH-regulating agents, Food additive.

8: Exposure controls / personal protection

8.1 Exposure limit values

8.1.1 Exposure limits

- not specified

8.1.2 Biological limit values:

- not specified

8.1.3 DNEL and PNEC values:

- not specified

8.2 Exposure control

8.2.1 Occupational exposure control:

Operate in a well-ventilated area, avoid inhalation of dusts or mists (for liquids). Ensure shower and area for eyes rinsing. The mentioned personal safety instruments should be in compliance with EN standards.

Personal protective equipment:

<i>Respiratory protection:</i>	In the case of high dust levels wear suitable respiratory protective equipment, ie. dust mask or respirator conforming to EN standards. Recommended filter = particle filter,P2.
<i>Hand protection:</i>	Wear suitable chemical resistant protective gloves for frequent or prolonged operations tested to EN374 with an acceptable permeation test. Suitable materials include neoprene (chloroprene), PVC and nitrile rubber. Break through time is > 480 min. Contaminated gloves should be carefully rinsed with water before reuse. Non suitable materials: Leather gloves.
<i>Eye / face protection:</i>	Wear suitable eye/face protection. Most materials for protective goggles and face visors will probably be suitable eg. polycarbonate.
<i>Skin and body protection:</i>	Normal working clothes is suitable.

Occupational safety: General regulations on occupational safety are in force. Do not allow exceeding standards for occupational exposure limits for hazardous components at the work – places. After finishing the work take off contaminated clothing. Before breaks during the work wash the hands and face. After the work wash thoroughly the whole body. Do not drink, eat and smoke by handling and use.

8.2.2 Environmental exposure controls:

Prevent from escape to environment.

9: Physical and chemical properties

9.1 General information :

<i>Physical state (at 20 °C):</i>	Solid – powder or fine crystals
<i>Colour:</i>	White
<i>Odour (fragrance):</i>	odourless
<i>Threshold odour value:</i>	odourless

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9.2 Important health, safety and environmental information :

pH (at 20 °C):	7,5 – 9,0 (5 g/l solution at 20 °C)
Melting point:	230 °C
Boiling point:	Not available
Flash point:	Not applicable, incombustible matter
Evaporation rate:	Not applicable
Flamability (solid, gas) :	The substance is non-flammable
Explosion limits	lower: Not available, non-explosive matter upper: Not available, non-explosive matter
Vapour pressure:	irrelevant
Vapour density:	irrelevant
Relative density:	1,98 g/cm ³
Water solubility (at 20 °C) :	60,6 g / 100 ml
Solubility in solvents:	Not available
Partition coefficient n-octanol/water:	log Pow: -1,8 - -0,2
Self-ignition temperature:	Not applicable
Decomposition temperature:	Not available
Viscosity:	Not applicable
Explosive properties:	The substance is non-explosive
Oxidizing properties:	The substance is non-oxidizing

9.3 Other information:

Fat solubility:	Not available
Conductivity:	Not available
Gas group:	Not applicable

10: Stability and reactivity

Stable under recommended storage and handling conditions.

10.1 Conditions to avoid:

High temperature (decomposition). Moisture.

10.2 Materials to avoid:

No data available

10.3 Hazardous decomposition products:

None at normal use. Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

11: Toxicological information

Acute toxicity:		
- LD ₅₀ oral, mouse (mg.kg ⁻¹):	5 400	OECD Test Guideline 401
- LD ₅₀ oral, rat (mg.kg ⁻¹):	11 700	OECD Test Guideline 401
- LD ₅₀ dermal, rat (mg.kg ⁻¹):	2 000	
- LC ₅₀ inhalation, rat, for aerosols or particles (mg.l ⁻¹):	No data available	
Skin irritation:	No irritation	OECD Test Guideline 404
Eye irritation:	No irritation	OECD Test Guideline 405
Sensitisation:	Substance does not have sensitive effects on skin and respiratory system	
Carcinogenicity:	Did not show carcinogenic or teratogenic effects in animal experiments.	
Gentotoxicity in vitro:	Not available	
Toxicity for reproduction:	Not available	
Toxicity for specific target body – single exposition	Not available	

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Toxicity for specific target body – repeated exposition:	Not available
Teratogenicity :	Not available
Repeated dose toxicity:	Not available
Irritation if inhaled:	Substance does not have irritable effects
Other information: none	

12: Ecological information

12.1 Ecotoxicity:

- LC ₅₀ 96 hr., fish (mg.l ⁻¹):	> 18.000 - 32.000 mg/l, Exposure time: 672 h, Species: Poecilia reticulata (guppy)
- EC ₅₀ 48 hr., daphnia (mg.l ⁻¹):	5.600 - 10.000 mg/l, Exposure time : 48h, Species: Daphnia magna (Water flea)
- EC ₅₀ 72 hr. algae (mg.l ⁻¹):	18.000 - 32.000 mg/l, Exposure time: 96 h, Species: Chlorella vulgaris (Fresh water algae), Method: OECD Test Guideline 201
- EC ₅₀ 30 min. bacteria (mg.l ⁻¹):	> 1.800 - 3.200 mg/l, Exposure time: 8 h, Species: Bacteria

12.2 Mobility :

Not specified

12.3 Persistence and degradability:

Readily biodegradable. 98%, Exposure time: 2 d
Biochemical Oxygen Demand (BOD) : 364 mg/g, 5d
Chemical Oxygen Demand (COD) : 480 mg/g

12.4 Bioaccumulative potential:

The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected.

12.5 Results of PBT assessment:

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects:

The product should not be allowed to enter drains, water courses or the soil.

13: Disposal considerations

13.1 Product:

If recycling or reuse is not practical then the product must be disposed of by authorized personnel in accordance with local, state or national regulations. Never dispose by flushing into the drainage! Waste former is responsible for its sorting and disposal.

Special safety precaution for recommended waste treatment:

Preferably dispose in independent container.

13.2 Packaging:

If recycling or reuse is not practical then packaging must be disposed of by authorized personnel in accordance with local, state or national regulations. Clean packaging with water and dispose of washings in accordance to local regulations. Packaging can be passed to a packaging return system after the cleaning.

13.3 Legal waste regulations:

Directive 2008/98/ES

National or regional provisions may be in force !

14: Transport information

14.1 ADR/RID (Land Transport) :	Not classified as hazardous for transportation.
14.2 ADN/ADNR (Inland Waterway Transport):	Not classified as hazardous for transportation.
14.3 IMDG (Marine Transport) :	Not classified as hazardous for transportation.
14.4 ICAO/IATA (Air Transport) :	Not classified as hazardous for transportation.

15: Regulatory Information

15.1 Health, safety and environmental information on the label : ---

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15.2 Chemical Safety Assessment:

Not available.

15.3 National legislation:

Regulation (EC) No. 1907 / 2006 / ES, REACH

Regulation (EC) No. 1272 / 2008 / ES, CLP

National laws or provisions may be in force !

16: Other information

Changes made in Safety Data Sheet in terms of revision:

Revision of Safety data sheet in terms of avoidance of Directive 67/548/EHS.

Key or explanation for abbreviations:

DNEL Derived No Effect Level (derived concentration of substance, at which no unfavourable effects occur)

PNEC Predicted No Effect Concentration (prediction of substance concentration, at which no unfavourable effects occur)

PEL Acceptable exposure limit, long-term (8 hours)

Important literature references and data sources:

SDS of other producers, special literature, ECHA web. site <http://apps.echa.europa.eu/registered/registered-sub.aspx>)

Training instructions:

According to Safety Data Sheet.

Recommended restrictions of use:

Not specified

Other :

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