

# Mascia Brunelli S.p.A.

NCI8822 – CITRIC ACID

## Scheda di Dati di Sicurezza / Safety Data Sheet

Conforme all'Allegato II del REACH - Regolamento (UE) 2020/878  
According to Annex II to REACH - Regulation 2020/878

<b>Codice / Code:</b>	<b>NCI8822</b>
<b>Nome prodotto / Product name:</b>	<b>CITRIC ACID</b>
<b>Descrizione d'uso / Intended use:</b>	<b>Determinazione quantitativa UV dell'Acido Citrico su liquido seminale e urine/Citric Acid quantitative UV assay on spermatoc liquid and urine</b>
<b>Fornitore / Supplier:</b>	<b>Mascia Brunelli S.p.A.</b> Viale Monza 272, 20128 Milano, Italia. Tel.: 0039 02 252091 E-mail: <a href="mailto:mktg@masciabrunelli.it">mktg@masciabrunelli.it</a>
<b>Componenti del kit / Kit components:</b>	
1. R1 buffer	
2. R2 MDH, NADH (Iyo)	
3. R3 CL (Iyo)	
4. R4 DIL	



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 1/7

Replaced revision: 1 (Printed on: 18/01/2024)

# SAFETY DATA SHEET

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

### 1.1 Product identifiers

Code: **NCI8822**  
Product name: **CITRIC ACID\_R1 (reagent)**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified use: **Reagent for in-vitro diagnostic**

### 1.3 Details of the supplier of the safety data sheet

Name: **Mascia Brunelli S.p.A.**  
Full address: **Viale Monza, 272**  
District and Country: **20128 Milano (Milano)**  
**Italia**

**Tel. 0039 02 252091**

e-mail address of the competent person

responsible for the Safety Data Sheet: **[mktg@masciabrunelli.it](mailto:mktg@masciabrunelli.it)**

### 1.4 Emergency telephone number

For urgent inquiries refer to: **NHS111 in England: 111**  
**NHS24 in Scotland: 111**  
**NHS Direct in Wales: 111 or 0845 4647**  
**In an emergency, if the patient has collapsed or is not breathing properly, call 999**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: -

### 2.2 Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements: --

Supplemental Hazard statement Code(s): **EUH210 – Safety data sheet available on request.**

Precautionary statements: --

### 2.3 Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

No information on other hazards.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Irrilevant



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 2/7

Replaced revision: 1 (Printed on: 18/01/2024)

### 3.2 Mixtures

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require the statement.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation: air the area. Immediately move the patient from the contaminated area and keep him at rest in a well-ventilated area. If you feel unwell seek medical advice.

Direct skin contact (of the pure product): wash thoroughly with soap and water.

Direct eye contact (of pure product): wash immediately with plenty of water for at least 10 minutes.

Ingestion: not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine.

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

Information not available

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

Information not available

## SECTION 5: Fire fighting measures

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: Foam. Dry powder. Carbon dioxide. Water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

Water jets. Use water jets only to cool container surfaces exposed to fire.

### 5.2. Special hazards arising from the substance or mixture

Information not available

### 5.3. Advice for firefighters

Use respiratory protection. Safety helmet and full protective clothing. Water spray can be used to protect people engaged in extinguishing. It is also advisable to use self-contained breathing apparatus, especially, if working in enclosed and poorly ventilated places and in any case if halogenated extinguishing agents (fluobrene, solkan 123, NAF, etc.) are used. Cool containers with jets of water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: leave the area surrounding the spill or release. Do not smoke. Wear gloves and protective clothing.

6.1.2 For emergency responders: Wear gloves and protective clothing. Eliminate all unguarded flames and possible sources of ignition. Do not smoke. Provide adequate ventilation. Evacuate the danger area and, in case, consult an expert.

### 6.2. Environmental precautions

Contain spills with earth or sand. If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities. Dispose of the residue in accordance with applicable regulations.

### 6.3. Methods and material for containment and cleaning up

6.3.1 For containment. Collect the product for reuse, if possible, or for disposal. If possible, absorb it with inert material. Prevent it from entering the



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 3/7

Replaced revision: 1 (Printed on: 18/01/2024)

**NCI8822 – CITRIC ACID**

sewage system.

6.3.2 For cleanup. After collection, wash the affected area and materials with water.

6.3.3 Other information: None in particular.

#### **6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors.  
Do not eat or drink while working.  
See also section 8 below.

#### **7.2. Conditions for safe storage, including any incompatibilities**

Keep in original container closed tightly. Do not store in open or unlabeled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool place, away from any source of heat and direct exposure to sunlight.

#### **7.3. Specific end use(s)**

Professional uses:  
Handle with care.  
Store in ventilated place and away from heat sources.  
Keep container tightly closed.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

No data available.

#### **8.2. Exposure controls**

Appropriate engineering controls:  
Professional uses:  
No specific controls provided

Individual protective measures:

**HAND PROTECTION**  
None required for normal use.

**SKIN PROTECTION**  
None required.

**EYE PROTECTION**  
None required for normal use.

**RESPIRATORY PROTECTION**  
None required for normal use.

**ENVIRONMENTAL EXPOSURE CONTROLS**  
Use according to good working practices, avoiding spillage into the environment.

### **SECTION 9: Physical and chemical properties**

#### **9.1. Information on basic physical and chemical properties**



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 4/7

Replaced revision: 1 (Printed on: 18/01/2024)

<b>Properties</b>	<b>Value</b>	<b>Information</b>
Appearance	liquid	
Colour	colorless	
Odour	odorless	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	Not available	
Auto-ignition temperature	Not available	
pH	Not available	
Kinematic viscosity	Not available	
Solubility	Not available	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	Not available	
Relative vapour density	Not available	
Particle characteristics	Not available	

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

Information not available

### 9.2.2. Other safety characteristics

Information not available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

### 10.4. Conditions to avoid

None in particular.

### 10.5. Incompatible materials

It can generate inflammable gases to contact with elementary metals, nitrides, inorganic sulphide, strong reducing agents.  
It can generate toxic gases to contact with inorganic sulphide, strong reducing agents.

### 10.6. Hazardous decomposition products



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 5/7

Replaced revision: 1 (Printed on: 18/01/2024)

Does not decompose when used for its intended uses.

## **SECTION 11: Toxicological information**

### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

ATE(mix) oral = ∞  
ATE(mix) dermal = ∞  
ATE(mix) inhal = ∞

- (a) acute toxicity: based on available data, the classification criteria are not met
- (b) skin corrosion/dermal irritation: based on available data, the classification criteria are not met
- (c) severe ocular damage/eye irritation: based on available data the classification criteria are not met
- (d) respiratory or skin sensitization: based on available data the classification criteria are not met
- (e) germ cell mutagenicity: based on available data the classification criteria are not met
- (f) carcinogenicity: based on available data the classification criteria are not met
- (g) reproductive toxicity: based on available data the classification criteria are not met
- (h) specific target organ toxicity (STOT) single exposure: based on available data the classification criteria are not met
- (i) specific target organ toxicity (STOT) repeated exposure: based on available data the classification criteria are not met
- (j) aspiration hazard: based on available data, the classification criteria are not met.

### **11.2. Information on other hazards**

#### **11.2.1. Endocrine disrupting properties**

Based on available data, there are no substances with endocrine-disrupting properties.

#### **11.2.2. Other information**

No information on other hazards.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Use according to good working practices, avoiding dispersing the product into the environment.

### **12.2. Persistence and degradability**

Information not available

### **12.3. Bioaccumulative potential**

Information not available

### **12.4. Mobility in soil**

Information not available

### **12.5. Results of PBT and vPvB assessment**

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

### **12.6. Endocrine disrupting properties**

Information not available

### **12.7. Other adverse effects**

No adverse effects observed



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 6/7

Replaced revision: 1 (Printed on: 18/01/2024)

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with current regulations. Any product residues should be disposed of according to current regulations by contacting authorized companies. Recover if possible. Operate according to current local or national regulations.

## **SECTION 14: Transport information**

### **14.1. UN number or ID number**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### **14.2. UN proper shipping name**

Not applicable

### **14.3. Transport hazard class(es)**

Not applicable

### **14.4. Packing group**

Not applicable

### **14.5. Environmental hazards**

Not applicable

### **14.6. Special precautions for user**

No data available

### **14.7. Maritime transport in bulk according to IMO instruments**

There is no provision for bulk transport

## **SECTION 15: Regulatory information**

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

D.Lgs 3/2/1997 No. 52 (Classification, packaging and labeling of dangerous substances), D.Lgs 14/3/2003 No. 65 (Classification, packaging and labeling of dangerous preparations), D.Lgs 81/08 (Consolidated text on the protection of health and safety in the workplace), D. M. 03/04/2007 (Implementation of Directive No. 2006/8/EC), Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) No. 790/2009, Legislative Decree 105/2015 (Seveso Ter Directive), Regulation (EU) 2019/1021, Regulation (EU) 2020/878. Substances on Candidate List (art.59 REACH).

Based on available data, there are no SVHC substances present.

### **15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## **SECTION 16: Other information**

Classification and procedure used to derive it under Regulation (EC)1272/2008 [CLP] in relation to mixtures:

No hazard to report.

Classification procedure: Calculation method.

### **GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 7/7

Replaced revision: 1 (Printed on: 18/01/2024)

3. Regulation (EC) 758/2013 of the European Parliament
  4. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
  5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
  6. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  7. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  8. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  9. Regulation (EU) 517/2013 of Council
  10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  12. Regulation (EU) 2015/491 of the European Parliament
  13. Regulation (EU) No. 1297/2014 of the Commission
  14. Regulation (EC) 528/2012 of the European Parliament and subsequent updates
  15. Regulation (EC) 648/2004 of the European Parliament and subsequent updates
- The Merck Index.
  - Handling Chemical Safety
  - Niosh – Registry of Toxic Effects of Chemical Substances
  - INRS - Fiche Toxicologique
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

This SDS replaces and cancels all previous ones.





**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 1/7

Replaced revision: 1 (Printed on: 18/01/2024)

# SAFETY DATA SHEET

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

### 1.1 Product identifiers

Code: **NCI8822**  
Product name: **CITRIC ACID\_R2 (reagent)**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified use: **Reagent for in-vitro diagnostic**

### 1.3 Details of the supplier of the safety data sheet

Name: **Mascia Brunelli S.p.A.**  
Full address: **Viale Monza, 272**  
District and Country: **20128 Milano (Milano)**  
**Italia**

**Tel. 0039 02 252091**

e-mail address of the competent person

responsible for the Safety Data Sheet: **[mktg@masciabrunelli.it](mailto:mktg@masciabrunelli.it)**

### 1.4 Emergency telephone number

For urgent inquiries refer to: **NHS111 in England: 111**  
**NHS24 in Scotland: 111**  
**NHS Direct in Wales: 111 or 0845 4647**  
**In an emergency, if the patient has collapsed or is not breathing properly, call 999**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: -

### 2.2 Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements: --

Supplemental Hazard statement Code(s): **EUH210 – Safety data sheet available on request.**

Precautionary statements: --

### 2.3 Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

No information on other hazards.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Irrilevant



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 2/7

Replaced revision: 1 (Printed on: 18/01/2024)

### 3.2 Mixtures

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require the statement.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation: air the area. Move immediately the contaminated patient from the area and keep him at rest in a well-ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product): Wash thoroughly with soap and running water.

Direct eye contact (of pure product): wash immediately and thoroughly with running water for at least 10 minutes..

Ingestion: the product is not hazardous. It is possible to give activated charcoal in water or liquid paraffin medicine.

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

Information not available

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

Information not available

## SECTION 5: Fire fighting measures

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: Foam. Dry powder. Carbon dioxide. Water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

Water jets. Use water jets only to cool container surfaces exposed to fire.

### 5.2. Special hazards arising from the substance or mixture

Information not available

### 5.3. Advice for firefighters

Use respiratory protection. Safety helmet and full protective clothing. Water spray can be used to protect people engaged in extinguishing. It is also advisable to use self-contained breathing apparatus, especially, if working in enclosed and poorly ventilated places and in any case if halogenated extinguishing agents (fluobrene, solkan 123, NAF, etc.) are used. Cool containers with jets of water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: leave the area surrounding the spill or release. Do not smoke. Wear gloves and protective clothing.

6.1.2 For emergency responders: Wear gloves and protective clothing. Eliminate all unguarded flames and possible sources of ignition. Do not smoke. Provide adequate ventilation. Evacuate the danger area and, in case, consult an expert.

### 6.2. Environmental precautions

Contain spills. Inform the competent authorities.

Dispose of the residue in accordance with applicable regulations.

### 6.3. Methods and material for containment and cleaning up

6.3.1 For containment. Recover the product for reuse, if possible, or the removal.



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 3/7

Replaced revision: 1 (Printed on: 18/01/2024)

**NCI8822 – CITRIC ACID**

6.3.2 For cleanup. After wiping up, wash with water the area and materials involved.

6.3.3 Other information: None in particular.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Wear protective gloves/protective clothing/eye protection/face protection.  
At work do not eat or drink.  
Do not eat, drink or smoke when using this product.  
See also section 8 below.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool place, away from any source of heat and direct exposure to sunlight.

#### 7.3. Specific end use(s)

Professional uses:  
Handle with care.  
Store in ventilated place and away from heat sources.  
Keep container tightly closed.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No data available.

#### 8.2. Exposure controls

Appropriate engineering controls:  
Professional uses:  
No specific controls provided

Individual protective measures:

**HAND PROTECTION**  
None required for normal use.

**SKIN PROTECTION**  
Wear normal work clothing.

**EYE/FACE PROTECTION**  
None required for normal use.

**RESPIRATORY PROTECTION**  
None required for normal use.

**THERMAL HAZARDS**  
No Hazard to report

**ENVIRONMENTAL EXPOSURE CONTROLS**  
Use according to good working practices to avoid pollution into the environment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 4/7

Replaced revision: 1 (Printed on: 18/01/2024)

**NCI8822 – CITRIC ACID**

<b>Properties</b>	<b>Value</b>	<b>Information</b>
Appearance	Lyophile	
Colour	White	
Odour	odorless	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	Not available	
Auto-ignition temperature	Not available	
pH	Not available	
Kinematic viscosity	Not available	
Solubility	Not available	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	Not available	
Relative vapour density	Not available	
Particle characteristics	Not available	

## **9.2. Other information**

### 9.2.1. Information with regard to physical hazard classes

Information not available

### 9.2.2. Other safety characteristics

Information not available

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

### **10.2. Chemical stability**

No hazardous reaction when handled and stored according to provisions.

### **10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

### **10.4. Conditions to avoid**

Nothing to report.

### **10.5. Incompatible materials**

Nothing in particular.

### **10.6. Hazardous decomposition products**

Does not decompose when used for its intended uses.



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 5/7

Replaced revision: 1 (Printed on: 18/01/2024)

## **SECTION 11: Toxicological information**

### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

ATE(mix) oral = ∞

ATE(mix) dermal = ∞

ATE(mix) inhal = 1.893,9 mg/l/4 h

- (a) acute toxicity: based on available data, the classification criteria are not met
- (b) skin corrosion/dermal irritation: based on available data, the classification criteria are not met
- (c) severe ocular damage/eye irritation: based on available data the classification criteria are not met
- (d) respiratory or skin sensitization: based on available data the classification criteria are not met
- (e) germ cell mutagenicity: based on available data the classification criteria are not met
- (f) carcinogenicity: based on available data the classification criteria are not met
- (g) reproductive toxicity: based on available data the classification criteria are not met
- (h) specific target organ toxicity (STOT) single exposure: based on available data the classification criteria are not met
- (i) specific target organ toxicity (STOT) repeated exposure: based on available data the classification criteria are not met
- (j) aspiration hazard: based on available data, the classification criteria are not met.

### **11.2. Information on other hazards**

#### **11.2.1. Endocrine disrupting properties**

Based on available data, there are no substances with endocrine-disrupting properties.

#### **11.2.2. Other information**

No information on other hazards.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Use according to good working practices, avoiding dispersion of the product into the environment.

### **12.2. Persistence and degradability**

Information not available

### **12.3. Bioaccumulative potential**

Information not available

### **12.4. Mobility in soil**

Information not available

### **12.5. Results of PBT and vPvB assessment**

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

### **12.6. Endocrine disrupting properties**

Information not available

### **12.7. Other adverse effects**

No adverse effects observed



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 6/7

Replaced revision: 1 (Printed on: 18/01/2024)

**NCI8822 – CITRIC ACID**

### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with current regulations. Any product residues should be disposed of according to current regulations by contacting authorized companies. Recover if possible. Operate according to current local or national regulations.

### **SECTION 14: Transport information**

#### **14.1. UN number or ID number**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### **14.2. UN proper shipping name**

Not applicable

#### **14.3. Transport hazard class(es)**

Not applicable

#### **14.4. Packing group**

Not applicable

#### **14.5. Environmental hazards**

Not applicable

#### **14.6. Special precautions for user**

No data available

#### **14.7. Maritime transport in bulk according to IMO instruments**

There is no provision for bulk transport

### **SECTION 15: Regulatory information**

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

D.Lgs 3/2/1997 No. 52 (Classification, packaging and labeling of dangerous substances), D.Lgs 14/3/2003 No. 65 (Classification, packaging and labeling of dangerous preparations), D.Lgs 81/08 (Consolidated text on the protection of health and safety in the workplace), D. M. 03/04/2007 (Implementation of Directive No. 2006/8/EC), Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) No. 790/2009, Legislative Decree 105/2015 (Seveso Ter Directive), Regulation (EU) 2019/1021, Regulation (EU) 2020/878.

REGULATION (EU) No 1357/2014 – waste:  
HP14 – Ecotoxic

Substances on Candidate List (art.59 REACH).  
Based on available data, there are no SVHC substances present.

#### **15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

### **SECTION 16: Other information**

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 7/7

Replaced revision: 1 (Printed on: 18/01/2024)

No hazard to report. Classification procedure: Calculation method.

#### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EC) 758/2013 of the European Parliament
  4. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
  5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
  6. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  7. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  8. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  9. Regulation (EU) 517/2013 of Council
  10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  12. Regulation (EU) 2015/491 of the European Parliament
  13. Regulation (EU) No. 1297/2014 of the Commission
  14. Regulation (EC) 528/2012 of the European Parliament and subsequent updates
  15. Regulation (EC) 648/2004 of the European Parliament and subsequent updates
- The Merck Index.
  - Handling Chemical Safety
  - Niosh – Registry of Toxic Effects of Chemical Substances
  - INRS - Fiche Toxicologique
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

This SDS replaces and cancels all previous ones.



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 1/8

Replaced revision: 1 (Printed on: 18/01/2024)

# SAFETY DATA SHEET

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

### 1.1 Product identifiers

Code: **NCI8822**  
Product name: **CITRIC ACID\_R3 (reagent)**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified use: **Reagent for in-vitro diagnostic**

### 1.3 Details of the supplier of the safety data sheet

Name: **Mascia Brunelli S.p.A.**  
Full address: **Viale Monza, 272**  
District and Country: **20128 Milano (Milano)**  
**Italia**  
  
Tel. **0039 02 252091**

e-mail address of the competent person

responsible for the Safety Data Sheet: **[mktg@masciabrunelli.it](mailto:mktg@masciabrunelli.it)**

### 1.4 Emergency telephone number

For urgent inquiries refer to:  
NHS111 in England: 111  
NHS24 in Scotland: 111  
NHS Direct in Wales: 111 or 0845 4647  
In an emergency, if the patient has collapsed or is not breathing properly, call 999

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: -

### 2.2 Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements: --

Supplemental Hazard statement Code(s): **EUH210 – Safety data sheet available on request.**

Precautionary statements: --

### 2.3 Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

No information on other hazards.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Irrilevant





**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 2/8

Replaced revision: 1 (Printed on: 18/01/2024)

### 3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements.

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>Citrate lyase</b>		
CAS 9012-83-3	$1\% \leq x < 5\%$	NC
EC: -		
REACH – No.: -		
INDEX: -		
<b>Zinc chloride</b>		
CAS 7646-85-7	$0,1\% \leq x < 1\%$	Acute Tox 4, H302
EC 231-592-0		Skin Corr. 1B, H314
REACH – No.: -		Aquatic acute 1, H400
INDEX 030-003-00-2		Aquatic chronich 1, H410
		Limits: STOT SE 3, H335 %C $\geq 5$
		Acute Tox. Factor M=1
		Chronic Tox. Factor M=1

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation: air the area. Move immediately the contaminated patient from the area and keep him at rest in a well-ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product): Wash thoroughly with soap and flowing water.

Direct eye contact (of pure product): wash immediately and thoroughly with flowing water for at least 10 minutes.

Ingestion: not hazardous. It is possible to give activated charcoal in water or liquid paraffin medicine.

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

Information not available

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

No data available.

## SECTION 5: Fire fighting measures

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: Foam. Dry powder. Carbon dioxide. Water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

Water jets. Use water jets only to cool container surfaces exposed to fire.

### 5.2. Special hazards arising from the substance or mixture

Information not available

### 5.3. Advice for firefighters

Use respiratory protection. Safety helmet and full protective clothing. Water spray can be used to protect people engaged in extinguishing. It is also advisable to use self-contained breathing apparatus, especially, if working in enclosed and poorly ventilated places and in any case if halogenated extinguishing agents (fluobrene, solkan 123, NAF, etc.) are used. Cool containers with jets of water.



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 3/8

Replaced revision: 1 (Printed on: 18/01/2024)

**NCI8822 – CITRIC ACID**

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel: leave the area surrounding the spill or release. Do not smoke. Wear gloves and protective clothing.

6.1.2 For emergency responders: Wear gloves and protective clothing. Eliminate all unguarded flames and possible sources of ignition. Do not smoke. Provide adequate ventilation. Evacuate the danger area and, in case, consult an expert.

### **6.2. Environmental precautions**

Contain spills with earth or sand. If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities. Dispose of the residue in accordance with applicable regulations.

### **6.3. Methods and material for containment and cleaning up**

6.3.1 For containment. Recover the product for reuse, if possible, or the removal. Possibly adsorb it with inert material. Prevent it from entering the sewer system.

6.3.2 For cleanup. After wiping up, wash with water the area and materials involved.

6.3.3 Other information: None in particular.

### **6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors.  
At work do not eat or drink.  
See also section 8 below.

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep in original container closed tightly. Do not store in open or unlabeled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool place, away from any source of heat and direct exposure to sunlight.

### **7.3. Specific end use(s)**

Professional uses:  
Handle with care.  
Store in ventilated place and away from heat sources.  
Keep container tightly closed.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

CITRATE LYASE:  
Lyase, citrate: IOEL 0,00006 mg/m<sup>3</sup>

Zinc chloride:  
TLV: (as fumes) 1 mg/m<sup>3</sup> as TWA 2 mg/m<sup>3</sup> as STL (ACGIH 2004).

### **8.2. Exposure controls**

Appropriate engineering controls:  
Professional uses:  
No specific controls provided



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 4/8

Replaced revision: 1 (Printed on: 18/01/2024)

Individual protective measures:

**HAND PROTECTION**

None required for normal use.

**SKIN PROTECTION**

Wear normal work clothing.

**EYE/FACE PROTECTION**

None required for normal use.

**RESPIRATORY PROTECTION**

None required for normal use.

**THERMAL HAZARDS**

No Hazard to report

**ENVIRONMENTAL EXPOSURE CONTROLS**

Related to contained substances:

Zinc chloride:

DO NOT allow this chemical to contaminate the environment.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

<b>Properties</b>	<b>Value</b>	<b>Information</b>
Appearance	Lyophile	
Colour	Whitish	
Odour	Odorless	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	Not available	
Auto-ignition temperature	Not available	
pH	Not available	
Kinematic viscosity	Not available	
Solubility	Not available	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	Not available	
Relative vapour density	Not available	
Particle characteristics	Not available	

**9.2. Other information**

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 5/8

Replaced revision: 1 (Printed on: 18/01/2024)

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

### **10.2. Chemical stability**

No hazardous reaction when handled and stored according to provisions.

### **10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

### **10.4. Conditions to avoid**

Related to contained substances:

Cytrate lyase:

Humidity exposition.

### **10.5. Incompatible materials**

Nothing in particular.

### **10.6. Hazardous decomposition products**

Does not decompose when used for its intended uses.

## **SECTION 11: Toxicological information**

### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

ATE(mix) oral = 223.463,7 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = 1.111,1 mg/l/4 h

- (a) acute toxicity: based on available data, the classification criteria are not met
- (b) skin corrosion/dermal irritation: based on available data, the classification criteria are not met
- (c) severe ocular damage/eye irritation: based on available data the classification criteria are not met
- (d) respiratory or skin sensitization: based on available data the classification criteria are not met
- (e) germ cell mutagenicity: based on available data the classification criteria are not met
- (f) carcinogenicity: based on available data the classification criteria are not met
- (g) reproductive toxicity: based on available data the classification criteria are not met
- (h) specific target organ toxicity (STOT) single exposure: based on available data the classification criteria are not met
- (i) specific target organ toxicity (STOT) repeated exposure: based on available data the classification criteria are not met
- (j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Zinc chloride:

WAYS OF EXPOSURE: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion.

RISKS BY INHALATION: Evaporation at 20°C is negligible; however, a harmful concentration of airborne particles can be reached rapidly when dispersed, especially if pulverulent.

EFFECTS OF SHORT-TERM EXPOSURE: The substance is corrosive to the eyes and skin. Aerosol is irritating to the respiratory tract Corrosive by ingestion. Inhalation of fumes of this substance may cause pulmonary edema (see Notes). Substance may result in effects on pancreas if ingested. Acute exposure to high concentrations of zinc chloride smoke can lead to Respiratory Distress Syndrome in adults, leading to pulmonary fibrosis and death.

#### **ACUTE RISKS/SYMPTOMS**

INHALATION Coughing. Sore throat. Burning sensation. Difficulty breathing. Shortness of breath. Symptoms may present late (see Notes). CUTE Skin burns. Pain. Redness.

EYES Pain. Redness. Severe deep burns.

INGESTION Abdominal pain. Burning sensation in throat and chest. Sore throat. Nausea. Vomiting. Shock or collapse.

NOTE: Symptoms of pulmonary edema often do not occur for several hours and are aggravated by physical exertion. Therefore, rest and medical observation are essential.



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 6/8

Replaced revision: 1 (Printed on: 18/01/2024)

**NCI8822 – CITRIC ACID**

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Based on available data, there are no substances with endocrine-disrupting properties.

### 11.2.2. Other information

No information on other hazards.

## SECTION 12: Ecological information

### 12.1. Toxicity

Related to contained substances:

Zinc chloride:

The substance is very toxic to aquatic organisms. It is strongly recommended that this substance not be released into the environment.

Use according to good working practices, avoiding dispersion of the product into the environment.

### 12.2. Persistence and degradability

Information not available

### 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

### 12.6. Endocrine disrupting properties

Information not available

### 12.7. Other adverse effects

No adverse effects observed

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with current regulations. Any product residues should be disposed of according to current regulations by contacting authorized companies. Recover if possible. Operate according to current local or national regulations.

## SECTION 14: Transport information

### 14.1. UN number or ID number

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.2. UN proper shipping name



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 7/8

Replaced revision: 1 (Printed on: 18/01/2024)

Not applicable

**14.3. Transport hazard class(es)**

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Not applicable

**14.6. Special precautions for user**

No data available

**14.7. Maritime transport in bulk according to IMO instruments**

There is no provision for bulk transport

**SECTION 15: Regulatory information**

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

D.Lgs 3/2/1997 No. 52 (Classification, packaging and labeling of dangerous substances), D.Lgs 14/3/2003 No. 65 (Classification, packaging and labeling of dangerous preparations), D.Lgs 81/08 (Consolidated text on the protection of health and safety in the workplace), D. M. 03/04/2007 (Implementation of Directive No. 2006/8/EC), Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) No. 790/2009, Legislative Decree 105/2015 (Seveso Ter Directive), Regulation (EU) 2019/1021, Regulation (EU) 2020/878. Substances on Candidate List (art.59 REACH).

Based on available data, there are no SVHC substances present.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

**SECTION 16: Other information**

Description of the hazard statements exposed to point 3  
H302 - Harmful if swallowed. Classification procedure: Calculation method  
H314 – Causes severe skin burns and eye damage  
H400 = Very toxic to aquatic life.  
H410 = Very toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

No hazard to report. Classification procedure: Calculation method

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EC) 758/2013 of the European Parliament
4. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
7. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
8. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
9. Regulation (EU) 517/2013 of Council
10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
12. Regulation (EU) 2015/491 of the European Parliament
13. Regulation (EU) No. 1297/2014 of the Commission
14. Regulation (EC) 528/2012 of the European Parliament and subsequent updates



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 8/8

Replaced revision: 1 (Printed on: 18/01/2024)

15. Regulation (EC) 648/2004 of the European Parliament and subsequent updates

- The Merck Index.
- Handling Chemical Safety
- Niosh – Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

This SDS replaces and cancels all previous ones.



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 1/8

Replaced revision: 1 (Printed on: 18/01/2024)

# SAFETY DATA SHEET

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

### 1.1 Product identifiers

Code: **NCI8822**  
Product name: **CITRIC ACID\_R4 (reagent)**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified use: **Reagent for in-vitro diagnostic**

### 1.3 Details of the supplier of the safety data sheet

Name: **Mascia Brunelli S.p.A.**  
Full address: **Viale Monza, 272**  
District and Country: **20128 Milano (Milano)**  
**Italia**

**Tel. 0039 02 252091**

e-mail address of the competent person

responsible for the Safety Data Sheet: **[mktg@masciabrunelli.it](mailto:mktg@masciabrunelli.it)**

### 1.4 Emergency telephone number

For urgent inquiries refer to: **NHS111 in England: 111**  
**NHS24 in Scotland: 111**  
**NHS Direct in Wales: 111 or 0845 4647**  
**In an emergency, if the patient has collapsed or is not breathing properly, call 999**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: -

### 2.2 Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements: --

Precautionary statements: --

### 2.3 Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

No information on other hazards.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Irrilevant





**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 2/8

Replaced revision: 1 (Printed on: 18/01/2024)

### 3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements.

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>Sodium azide</b>		
CAS 26628-22-8	x < 0,1%	Acute Tox 2, H300
EC 247-852-1		Acute Tox 1, H310
REACH – No.: 01-2119457019-37-XXXX		Acute Tox 2, H330
		STOT RE 2, H373
INDEX 011-004-00-7		Aquatic acute 1, H400
		Aquatic chronic 1, H410
		Acute Tox. Factor M=1
		Chronic Tox Factor M=1
		ATE oral = 27,0 mg/kg
		ATE dermal > 20,0 mg/kg
		ATE inhal > 0,5 mg/l/4 h

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation: air the area. Immediately move the patient from the contaminated area and keep him at rest in a well-ventilated area. If you feel unwell seek medical advice.

Direct skin contact (of the pure product): wash thoroughly with soap and flushing water.

Direct eye contact (of pure product): wash immediately with plenty of water for at least 10 minutes.

Ingestion: not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine.

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

Information not available

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

Information not available

## SECTION 5: Fire fighting measures

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: Foam. Dry powder. Carbon dioxide. Water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

Water jets. Use water jets only to cool container surfaces exposed to fire.

### 5.2. Special hazards arising from the substance or mixture

Information not available

### 5.3. Advice for firefighters

Use respiratory protection. Safety helmet and full protective clothing. Water spray can be used to protect people engaged in extinguishing. It is also advisable to use self-contained breathing apparatus, especially, if working in enclosed and poorly ventilated places and in any case if halogenated extinguishing agents (fluobrene, solkan 123, NAF, etc.) are used. Cool containers with jets of water.



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 3/8

Replaced revision: 1 (Printed on: 18/01/2024)

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: leave the area surrounding the spill or release. Do not smoke. Wear gloves and protective clothing.

6.1.2 For emergency responders: Wear gloves and protective clothing. Eliminate all unguarded flames and possible sources of ignition. Do not smoke. Provide adequate ventilation. Evacuate the danger area and, in case, consult an expert.

### 6.2. Environmental precautions

Contain spills with earth or sand. If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities. Dispose of the residue in accordance with applicable regulations.

### 6.3. Methods and material for containment and cleaning up

6.3.1 For containment. Collect the product for reuse, if possible, or for disposal. If possible, absorb it with inert material. Prevent it from entering the sewage system.

6.3.2 For cleanup. After collection, wash the affected area and materials with water.

6.3.3 Other information: None in particular.

### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact and inhalation of vapors.  
Do not eat or drink while working.  
See also section 8 below.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool place, away from any source of heat and direct exposure to sunlight.

### 7.3. Specific end use(s)

Professional uses:  
Handle with care.  
Store in ventilated place and away from heat sources.  
Keep container tightly closed.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Sodium azide:  
TLV(Ceiling value): as hydrazoic acid vapor 0.11 ppm; as sodium azide 0.29 mg/m<sup>3</sup> (ACGIH 1996). TWA 0.1 mg/m<sup>3</sup>  
MAK 0.2 mg/m<sup>3</sup>

### 8.2. Exposure controls

Appropriate engineering controls:  
Professional uses:  
No specific controls provided

Individual protective measures:



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 4/8

Replaced revision: 1 (Printed on: 18/01/2024)

#### HAND PROTECTION

None required for normal use.

#### SKIN PROTECTION

Wear normal work clothing.

#### EYE PROTECTION

None required for normal use.

#### RESPIRATORY PROTECTION

None required for normal use.

#### ENVIRONMENTAL EXPOSURE CONTROLS

Related to contained substances:

Sodium azide:

Eye/face protection: Use eye protection devices tested and approved according to the requirements of appropriate technical standards such as NIOSH (US) or EN 166 (EU) Safety glasses.

Physical protection: Protective clothing

Respiratory protection:

Required when dust is generated

Our recommendations on respiratory protection filtering are based on the following standards: DIN EN 143, DIN 14387 and other associated standards related to the respiratory protection system used.

Suggested filter type: filter type P3

The contractor must ensure that maintenance, cleaning and inspections of protective equipment are carried out according to the manufacturer's instructions. These measures must be properly documented.

Environmental exposure control

Do not allow product to enter drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	colorless	
Odour	odorless	
Melting point / freezing point	Non oxidizing	
Initial boiling point	Not determined	
Flammability	Not determined	
Lower explosive limit	Not determined	
Upper explosive limit	Not determined	
Flash point	Not determined	
Auto-ignition temperature	Not determined	
pH	Not determined	
Kinematic viscosity	Not determined	
Solubility	Not determined	
Partition coefficient: n-octanol/water	Not determined	
Vapour pressure	Not determined	
Density and/or relative density	Not determined	
Relative vapour density	Not determined	
Particle characteristics	Not determined	

### 9.2. Other information

9.2.1. Information with regard to physical hazard classes



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 5/8

Replaced revision: 1 (Printed on: 18/01/2024)

Information not available

9.2.2. Other safety characteristics

Information not available

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

Related to contained substances:

Sodium azide:

in contact with acids releases very toxic gases.

### **10.2. Chemical stability**

No hazardous reaction when handled and stored according to provisions.

### **10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

### **10.4. Conditions to avoid**

Related to contained substances:

Sodium azide (sodium azide):

An explosion occurred during concentration in rotary evaporator of a mixture of sodium azide, methylene chloride, dimethyl sulfoxide and sulfuric acid.

Strong heating (decomposition).

Exposure to moisture.

No information available.

### **10.5. Incompatible materials**

It can generate inflammable gases to contact with elementary metals, nitrides, inorganic sulphide, strong reducing agents.

It can generate toxic gases to contact with inorganic sulphide, strong reducing agents.

### **10.6. Hazardous decomposition products**

Does not decompose when used for its intended uses.

## **SECTION 11: Toxicological information**

### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

ATE(mix) oral = ∞

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: based on available data, the classification criteria are not met

(b) skin corrosion/dermal irritation: based on available data, the classification criteria are not met

(c) severe ocular damage/eye irritation: based on available data the classification criteria are not met

(d) respiratory or skin sensitization: based on available data the classification criteria are not met

(e) germ cell mutagenicity: based on available data the classification criteria are not met

(f) carcinogenicity: based on available data the classification criteria are not met

(g) reproductive toxicity: based on available data the classification criteria are not met

(h) specific target organ toxicity (STOT) single exposure: based on available data the classification criteria are not met

(i) specific target organ toxicity (STOT) repeated exposure: based on available data the classification criteria are not met

(j) aspiration hazard: based on available data, the classification criteria are not met.

Health hazards:

Contact with eyes: accidental contact with the eyes may cause irritation.

Contact with skin: the product is not an irritant. Repeated and prolonged direct contact can degrease and irritate the skin and cause dermatitis in some cases.

Ingestion: ingestion may cause product mucosal irritation of the throat and digestive system resulting in abnormal digestive symptoms and intestinal disorders.



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 6/8

Replaced revision: 1 (Printed on: 18/01/2024)

Inhalation: prolonged Exposure to vapors or mists of product may cause irritation to the respiratory tract.

Related to contained substances:

Sodium azide (sodium azide):

LD50 Oral (rat) (mg/kg body weight) = 27

LD50 Dermal (rat or rabbit) (mg/kg body weight) > 20

LC50 Inhalation (rat) of vapor/dust/aerosol/smoke (mg/l/4h) or gas (ppmV/4h) > 0.52

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Based on available data, there are no substances with endocrine-disrupting properties.

### 11.2.2. Other information

No information on other hazards.

## SECTION 12: Ecological information

### 12.1. Toxicity

Related to contained substances:

Sodium azide:

Fish toxicity Continuous flow test CL50 - *Oncorhynchus mykiss* (Rainbow trout) - 2.75 mg/l - 96 h (OECD Test Guideline 203).

Algae toxicity Static test CE50r - *Pseudokirchneriella subcapitata* - 0.35 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria

C(E)L50 (mg/l) = 0.7

Use according to good working practices, avoiding dispersion of the product into the environment.

### 12.2. Persistence and degradability

Related to contained substances:

Sodium azide:

Methods for determining biological degradability are not applicable to non-organic substances.

### 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII.

### 12.6. Endocrine disrupting properties

Information not available

### 12.7. Other adverse effects

No adverse effects observed

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods



**Mascia Brunelli S.p.A.**

Revision nr. 2

Dated 04/03/2024

**NCI8822 – CITRIC ACID**

Printed on 04/03/2024

Page n. 7/8

Replaced revision: 1 (Printed on: 18/01/2024)

Do not reuse empty containers. Dispose of them in accordance with current regulations. Any product residues should be disposed of according to current regulations by contacting authorized companies. Recover if possible. Operate according to current local or national regulations.

## SECTION 14: Transport information

### 14.1. UN number or ID number

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

No data available

### 14.7. Maritime transport in bulk according to IMO instruments

There is no provision for bulk transport

## SECTION 15: Regulatory information

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

D.Lgs 3/2/1997 No. 52 (Classification, packaging and labeling of dangerous substances), D.Lgs 14/3/2003 No. 65 (Classification, packaging and labeling of dangerous preparations), D.Lgs 81/08 (Consolidated text on the protection of health and safety in the workplace), D. M. 03/04/2007 (Implementation of Directive No. 2006/8/EC), Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) No. 790/2009, Legislative Decree 105/2015 (Seveso Ter Directive), Regulation (EU) 2019/1021, Regulation (EU) 2020/878. Substances on Candidate List (art.59 REACH).

Based on available data, there are no SVHC substances present.

### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## SECTION 16: Other information

Description of the hazard statements exposed to point 3

H300 = Fatal if swallowed.

H310 = Fatal in contact with skin.

H330 = Fatal if inhaled.

H373 = May cause damage to organs through prolonged or repeated exposure .

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:



**Mascia Brunelli S.p.A.**

**NCI8822 – CITRIC ACID**

Revision nr. 2

Dated 04/03/2024

Printed on 04/03/2024

Page n. 8/8

Replaced revision: 1 (Printed on: 18/01/2024)

Classification according to Regulation (EC) Nr. 1272/2008

No hazard to report. Classification procedure: Calculation method

#### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EC) 758/2013 of the European Parliament
  4. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
  5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
  6. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  7. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  8. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  9. Regulation (EU) 517/2013 of Council
  10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  12. Regulation (EU) 2015/491 of the European Parliament
  13. Regulation (EU) No. 1297/2014 of the Commission
  14. Regulation (EC) 528/2012 of the European Parliament and subsequent updates
  15. Regulation (EC) 648/2004 of the European Parliament and subsequent updates
- The Merck Index.
  - Handling Chemical Safety
  - Niosh – Registry of Toxic Effects of Chemical Substances
  - INRS - Fiche Toxicologique
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

This SDS replaces and cancels all previous ones.