



Producer: Shandong Ensign Industry Co., Ltd.
Produced for Niran Europe B.V.



Safety Data Sheet

According to 1907/2006/EC, Article 31 and Regulation (EU) No. 2020/878

Revision: 18.09.2023

Version number 5

Superseded version: No 4/11.05.2021

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE

1.1 Product identifier

Trade name: Citric Acid Anhydrous

CAS number: 77-92-9

EC number: 201-069-1

REACH registration number: 01-2119457026-42-0006

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

Application of the substance / the preparation:

Formulation

Intermediate

Cleaning products

Personal care products

Paper industry

Cement retardation products

Polymers and plastics

Scale inhibition in oilfield water systems

Textile industry

Coatings and paints

Photographic processing

Anti-scalant, complexing agent in water treatment systems

Treatment of metal surfaces

Cleaning of metal surfaces

Agricultural applications

Laboratory reagent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Weifang Ensign Industry Co., Ltd.

No.1567, Changsheng Street, Changle, Weifang, Shandong, China

Tel: +86-536-6298125

Fax: +86-536-6234587 ext. 8125

E-mail: sales@ensignworld.com

www.ensignworld.com

Further information obtainable from:

B-Lands Consulting

WTC, 5 Place Robert Schuman, BP 1516

38025 Grenoble, FRANCE

Tel: +33 476 295 869



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Fax: _33 476 295 870

Email: clients@reachteam.eu

www.reachteam.eu

1.4 Emergency telephone number(s):

Nationaal Vergiftigingen Informatie Centrum (NVIC):

030-2748888 (Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen).

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS07

Signal word: Warning

Hazard statements:

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other Hazards

Results of PBT and vPvB assessment

PBT: No PBT.

vPvB: No vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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3.1 Substances

CAS Number. Description.

77-92-9 Citric Acid Anhydrous

Identification number(s) EC number: 201-069-1

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Move patient to fresh air, if symptoms persist consult a doctor.

After skin contact: Immediately rinse with water.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Serious eye damage/eye irritation: Eye Irrit. 2

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

Carbon dioxide (CO₂)

Carbon monoxide (CO)

5.3 Advice for firefighters

Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Ensure adequate ventilation.

6.2 Environmental precautions

Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up



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Send for recovery or disposal in suitable receptacles.

Retrieve the product by mechanical means.

Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Use only in well ventilated areas.

Provide suction extractors if dust is formed.

Do not inhale dust / smoke / mist.

Avoid contact with eyes and skin.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store in a cool and dry place

Provide ventilation for receptacles.

Store only in the original receptacle.

Information about storage in one common storage facility: Store away from oxidising agents.

Further information about storage conditions: Keep container tightly sealed

7.3 Specific end use(s):

No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

PNECs	
PNEC	0.44 mg/L (Water (Freshwater))
PNEC	0.044 mg/L (Water (Marine Water))
PNEC	>1000 mg/L (Sewage Treatment Plant (STP))
	3.46 mg/kg sedim. dw (Sediment (Marine Water))
	34.6 mg/kg sedim. dw (Sediment (Freshwater))
	33.1 mg/kg soil dw (Soil)

Additional information: The lists valid during the making were used as basis.



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8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures:

Do not inhale dust / smoke / mist.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Do not eat, drink, smoke or sniff while working.

Respiratory protection: Suitable respiratory protective device recommended.

Protection of hands:

Protective gloves

Material of gloves: Rubber, PVC or neoprene gloves recommended.

Eye protection:

Tightly sealed goggles (EN 166).

Body protection: Protective work clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General information

Appearance: Form:	Crystalline
Colour:	White
Odour:	Odourless
Odour Threshold:	Not determined
pH-value (100 g/l):	1.7
Melting point/freezing point:	153 °C
Boiling point/boiling range:	Decomposes before boiling
Flash point:	Not applicable
Flammability (solid, gaseous):	Product is not flammable
Ignition temperature:	Not applicable
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard
Explosion limits: Lower:	Not determined
Upper:	Not determined
Oxidising properties:	None
Vapour pressure at 25 °C	2.21*10 ⁻⁶ Pa
Density:	Not determined
Relative density at 20 °C	1.665



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Vapour density:	Not applicable
Evaporation rate	Not applicable
Solubility in / Miscibility with Water at 20 °C	590 g/l
Alcohols:	Partly soluble
Partition coefficient (n-octanol/water)	-0.2 to -1.8 log Pow
Viscosity: Dynamic:	Not applicable
Kinematic:	No further relevant information available

9.2 Other information

No further relevant information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: Keep away from heat and direct sunlight.

10.3 Possibility of hazardous reactions:

Reacts with alkali (lyes).

10.4 Conditions to avoid

Strong oxidizing agents.

10.5 Incompatible materials

Protect from moisture.

Avoid strong oxidants, strong alkalis and strong acids.

Sodium nitrite, potassium nitrite.

10.6 Hazardous decomposition products

Carbon dioxide

Carbon monoxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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

LD/LC50 values:		
Oral	LD50	5400 mg/Kg bw (Mouse) (OECD 401)
Dermal	LD50	>2000 mg/KG bw (Rat) (OECD 402)

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):



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Germ cell mutagenicity: Based on available data, the classification criteria a e not met.

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

Reproductive toxicity: Based on available data, the classification criteria a e not met.

STOT-single exposure: Based on available data, the classification criteria a e not met.

STOT-repeated exposure: Based on available data, the classification criteria a e not met.

Aspiration hazard: Based on available data, the classification criteria a e not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:	
LC50/48h	440 mg/L (Fish) (OECD 203)
NOEC	425 mg/L (Algae)
LC50/24h	1535 mg/L (Daphnia Magna)

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

Does not accumulate in organisms.

12.4 Mobility in soil

pKa: 3.13, 4.76 and 6.4 at 25 ° C

12.5 Results of PBT and vPvB assessment

PBT: No PBT.

vPvB: No vPvB.

12.6 Endocrine disrupting properties

No further relevant information available.

12.7 Other adverse effects

No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation: Do not allow product to reach sewage system.

Uncleaned packaging recommendation:

Disposal must be made according to official regulations.

Packaging that may not be cleansed must be disposed of in the same manner as the product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

ADR, ADN, IMDG, IATA Not applicable.



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14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Not applicable.

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA Not applicable.

14.4 Packing group

ADR, ADN, IMDG, IATA Not applicable.

14.5 Environmental hazards

Marine pollutant: No.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has been carried out.

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2