Safety data sheet

according to 1907/2006/EC, Article 31

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

1.1 Product identifier

Trade name: Trisodium citrate dihydrate
CAS number:
6132-04-3
EC number:
200-675-3
REACH registration number: 01-2119457027-40-0018

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

Application of the substance / the preparation:
Intermediate
Formulation
Detergents and cleaning products
Agricultural applications
Personal care products
Paper industry
Construction products
Polymers and plastics
Oil industry
Textile industry
Paints and coatings
Photography products
Laboratory reagents
Water treatment
Treatment of metal surfaces
Medical devices

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
RZBC (JUXIAN) CO., LTD.
NO. 209, LAIYANG ROAD (WEST SIDE OF NORTH CHENGYANGROAD),
JUXIAN ECONOMIC DEVELOPMENT ZONE, RIZHAO CITY, SHANDONG PROVINCE CHINA
Tel: 0086 633 2163576
Fax: 0086 633 2163500

Further information obtainable from:
B-Lands Consulting
5 Place Robert Schuman, BP 1516
38025 Grenoble, FRANCE
Tel: +33 476 295 869
Fax: +33 476 295 870
Email: clients@reachteam.eu
www.reachteam.eu

1.4 Emergency telephone number(s):

NHS Direct: 111
National Poisons Information Service (NPIS): 0121 507 4123 (healthcare professionals only).
Ireland - National Poisons Information Centre: 01 837 9964 or 01 809 2566 (healthcare professionals only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
The substance is not classified, according to the CLP regulation.

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: Not applicable.

Hazard pictograms: Not applicable.

Signal word: Not applicable.

Hazard statements: Not applicable.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: No PBT.
vPvB: No vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

CAS Number. Description.
6132-04-3 Trisodium citrate dihydrate

Identification number(s)
EC number: 200-675-3

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. If symptoms persist, 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
No further relevant information available.

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:
Use extinguishing measures appropriate to local circumstances and the environment.
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 monoxide (CO)
Carbon dioxide (CO2)

5.3 Advice for firefighters

Protective equipment:
Wear self-contained respiratory protective device.

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Wear fully protective suit.

Additional information:
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Keep unprotected persons away.

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

6.3 Methods and material for containment and cleaning up
Send for recovery or disposal in suitable receptacles.
Retrieve the product by mechanical means.

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
Avoid contact with the eyes and skin.
Ensure good ventilation/exhaustion at the workplace.
Provide suction extractors if dust is formed.
Do not inhale dust / smoke / mist.

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 cool, dry conditions in well sealed receptacles.
Store only in the original receptacle.

Information about storage in one common storage facility: Not required.

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

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

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:
Do not get in eyes, on skin, or on clothing.
Wash hands before breaks and at the end of work.

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

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Hand protection



Protective gloves.

Eye/face protection



Safety glasses with side-shields (EN 166).

Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Colour:	White.
Odour:	Odourless.
Odour threshold:	Not determined.
Melting point/freezing point:	Not applicable.
Boiling point or initial boiling point and boiling range	Not applicable.
Flammability	Product is not flammable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	150 °C
pH	7.6 - 9
Viscosity:	
Kinematic viscosity	Not applicable.
VOC (EC):	
Dynamic:	Not applicable.
Solubility	
Water at 20 °C:	400-700 g/l
Partition coefficient n-octanol/water (log value)	-0.2 - -1.8 log POW (citric acid)
Vapour pressure at 25 °C:	2.21*10-6 Pa (citric acid)
Density and/or relative density	
Density at 20 °C:	1.86 g/cm³ (trisodium citrate pentahydrate)
Relative density	Not determined.
Vapour density	Not applicable.

9.2 Other information

Appearance:	
Form:	Crystalline
Ignition temperature:	Not determined.
Explosive properties:	Product does not present an explosion hazard.
Softening point/range	
Oxidising properties	Not oxidising.
Evaporation rate	Not applicable.

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Information with regard to physical hazard classes	
Explosives	Not applicable.
Flammable gases	Not applicable.
Aerosols	Not applicable.
Oxidising gases	Not applicable.
Gases under pressure	Not applicable.
Flammable liquids	Not applicable.
Flammable solids	Not applicable.
Self-reactive substances and mixtures	Not applicable.
Pyrophoric liquids	Not applicable.
Pyrophoric solids	Not applicable.
Self-heating substances and mixtures	Not applicable.
Substances and mixtures, which emit flammable gases in contact with water	Not applicable.
Oxidising liquids	Not applicable.
Oxidising solids	Not applicable.
Organic peroxides	Not applicable.
Corrosive to metals	Not applicable.
Desensitised explosives	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity No data available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid
Keep away from heat and direct sunlight.
Keep away from water/moisture, acids and bases.

10.5 Incompatible materials Sodium nitrite, potassium nitrite.

10.6 Hazardous decomposition products Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

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

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

LD/LC50 values:		
Oral	LD50	5400 mg/kg (Mouse) (citric acid)
Dermal	LD50	>2000 mg/kg (Rat) (citric acid)

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

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

11.2 Information on other hazards
11.2.1 Endocrine disrupting properties Substance is not listed.

SECTION 12: Ecological information

12.1 Toxicity

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

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 (citric acid).

12.5 Results of PBT and vPvB assessment
PBT: No PBT.
vPvB: No vPvB.

12.6 Endocrine disrupting properties
For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation: Must be specially treated adhering to official regulations.

Uncleaned packaging:
Recommendation:
Disposal must be made in accordance with 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 or ID number
ADR, ADN, IMDG, IATA Not applicable.

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA Not applicable.

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA
Class Not applicable.

14.4 Packing group
ADR, IMDG, IATA Not applicable.

14.5 Environmental hazards
Marine pollutant: No

14.6 Special precautions for user Not applicable.

14.7 Maritime transport in bulk according to IMO instruments Not applicable.

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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 relatif au transport international 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

*** Data compared to the previous version altered.**
SDS was updated according to Commission Regulation (EU) 2020/878.