Material Safety Data Sheet

Citric Acid 3 Percent Solution (RXSOL-33-1102-026)

1. Product and Company Identifaction

Product Name	Citric Acid Liq 3 Percent
Part Number	RXSOL-33-1102-026

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

Substances	Not relevant (mixture)

Mixtures

Description of the mixture

Name of substance	CAS No	Wt%	Classification acc. to GHS
Citric acid	77-92-9	3?–??5	Eye Irrit. 2 / H319 STOT SE 3 / H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

3. Hazards Identification

Classification of the substance or mixture

Label elements

Signal Word	Warning
Hazard Statements	H319 Causes serious eye irritation H335 May cause respiratory irritation
Precautionary Statements	**Precautionary statements - prevention** P261 Avoid breathing dust/fume/gas/mist/vapours/spray P280 Wear eye protection/face protection **Precautionary statements - response** P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing 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 or doctor/physician if you feel unwell **Precautionary statements - storage** P403+P233 Store in a well-ventilated place. Keep container tightly closed
Supplemental Hazard Statements	None
Other hazards	Results of PBT and vPvB assessment This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

4. First Aid Measures

General notes	Take off contaminated clothing.
Following inhalation	Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
Following skin contact	Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.
Following eye contact	Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.
Following ingestion	Rinse mouth. Call a doctor if you feel unwell.
Most important symptoms and effects, both acute and delayed	Irritation, Cough, Dyspnoea
Indication of any immediate medical attention and special treatment needed	None

5. Fire-fighting Measures

Suitable extinguishing media	Co-ordinate firefighting measures to the fire surroundings water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO ?)
Unsuitable extinguishing media	Water jet
Special hazards arising from the substance or mixture	Ingredients of the mixture combustible. The product itself does not burn.
Hazardous combustion products	Carbon monoxide (CO), Carbon dioxide (CO ?)
Advice for firefighters	In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.
Environmental precautions	Keep away from drains, surface and ground water. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.
Methods and material for containment and cleaning up	
Advice on how to contain a spill	Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Other information relating to spills and releases	Place in appropriate containers for disposal.
Reference to other sections	Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

7. Handling and Storage

Precautions for safe handling	Provision of sufficient ventilation.
Advice on general occupational hygiene	Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed.
Incompatible substances or mixtures	Observe hints for combined storage
Consideration of other advice:	
Specific designs for storage rooms or vessels	Recommended storage temperature: 15 ?–?25 °C
Specific end use(s)	No information available.

8. Exposure controls and personal protection

Relevant PNECs of components of the mixture

Name of substance	CAS No	End point	Threshol d level	Organism	Environmental compartment	Exposure time
Citric acid	77-92-9	PNEC	0.44 mg/	aquatic organisms	freshwater	short-term (single instance)
Citric acid	77-92-9	PNEC	0.44 mg/	aquatic organisms	marine water	short-term (single instance)
Citric acid	77-92-9	PNEC	1,000 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Citric acid	77-92-9	PNEC	34.6 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Citric acid	77-92-9	PNEC	3.46 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Citric acid	77-92-9	PNEC	33.1 mg/kg	terrestrial organisms	soil	short-term (single instance)

Eye/face protection	Use safety goggle with side protection.
Skin protection	**Hand protection** Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide. **Type of material** NBR (Nitrile rubber) **Material thickness** 0,11 mm **Breakthrough times of the glove material** 480 minutes (permeation: level 6) **Other protection measures** Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.
Respiratory protection	Respiratory protection necessary at: Aerosol or mist formation. Type: ABEK (combined filters against gases and vapours, colour code: Brown/Grey/Yellow/Green).
Environmental exposure controls	Keep away from drains, surface and ground water.

9. Physical and chemical properties

Physical state	Liquid
Color	Colorless
Odor	Odorless
Melting point/freezing point	Not determined
Boiling point or initial boiling point and boiling range	~100 °C at 1,013 hPa
Flammability	Non-combustible
Lower and upper explosion limit	Not determined
Flash point	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not relevent
pH (value)	1?–?2 (20 °C)
Kinematic viscosity	Not determined
Water solubility	Miscible in any proportion
Partition coefficient n-octanol/water (log value)	This information is not available
Vapour pressure	23 hPa at 20 °C
Density	1.04 g /cm³ at 20 °C
Relative vapor density	Information on this property is not available
Particle characteristics	Not relevant (liquid)
Oxidising properties	None

Other information	
Information with regard to physical hazard classes	Hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	
Miscibility	Completely miscible with water

10. Stability and reactivity

Reactivity	This material is not reactive under normal ambient conditions.
Chemical stability	The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions	**Violent reaction with**: strong oxidiser, Reducing agents, Metals, Bases
Conditions to avoid	There are no specific conditions known which have to be avoided.
Incompatible materials	Different metals
Hazardous decomposition products	Hazardous combustion products: see section 5.

11. Toxicological information

Information on toxicological effects	Test data are not available for the complete mixture.
Classification procedure	The method for classification of the mixture is based on ingredients of the mixture (additivity formula).
Acute toxicity	Shall not be classified as acutely toxic.
Skin corrosion/irritation	Shall not be classified as corrosive/irritant to skin
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	Shall not be classified as a respiratory or skin sensitiser.
Germ cell mutagenicity	Shall not be classified as germ cell mutagenic
Carcinogenicity	Shall not be classified as carcinogenic.
Reproductive toxicity	Shall not be classified as a reproductive toxicant
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Shall not be classified as a specific target organ toxicant (repeated exposure).
Aspiration hazard	Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed	Data are not available.
If in eyes	Causes serious eye irritation
If inhaled	Irritation to respiratory tract, cough, Dyspnoea
If on skin	irritant effects, pruritis, localised redness
Other information	None
Endocrine disrupting properties	None of the ingredients are listed.

12. Ecological information

Toxicity	Shall not be classified as hazardous to the aquatic environment.
Biodegradation	Data are not available.
Bioaccumulative potential	Data are not available.
Mobility in soil	Data are not available.
Results of PBT and vPvB assessment	Data are not available.
Endocrine disrupting properties	Data are not available.
Other adverse effects	Data are not available.

13. Disposal considerations

Waste Treatment Methods	This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.
Sewage disposal-relevant information	Do not empty into drains.
Remarks	Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

14. Transport information

UN number	Not subject to transport regulations
UN proper shipping name	Not assigned
Transport hazard class(es)	Not assigned
Packaging group	Not assigned
Environmental hazards	Non-environmentally hazardous acc. to the dangerous goods regulations
Special precautions for user	There is no additional information.
Transport in bulk according to IMO instruments	The cargo is not intended to be carried in bulk.
Information for each of the UN Model Regulations	
Transport informationNational regulationsAdditional information(UN RTDG)	Not subject to transport regulations. UN RTDG
International Maritime Dangerous Goods Code (IMDG) - Additional information	Not subject to IMDG.
International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information	Not subject to ICAO-IATA.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	There is no additional information.
Australian Inventory of Chemical Substances(AICS)	All ingredients are listed or exempt from listing.
Other information	Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Chemical Safety Assessment	Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages. DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.