SAFETY DATA SHEET

Sitronsyre 10-50%

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	11.05.2021

1.1. Product identifier

Product name	Sitronsyre 10-50%
Synonyms	Citric acid solution

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

Product group	Process Chemical
Use of the substance / preparation	Chemical / technical use For professional use only
Consumer use	No

1.3. Details of the supplier of the safety data sheet

Downstream user

Company name	Acinor AS
Office address	Titangt. 13, NO-1630 Gamle Fredrikstad
Postal address	Titangaten 13
Postcode	1630
City	Gamle Fredrikstad
Country	Norway
Telephone number	69384082
Fax	69384084
Email	post@acinor.no
Website	www.acinor.no
Enterprise No.	NO 984 648 324 MVA

1.4. Emergency telephone number

Emergency telephone	Telephone number: +47 22 59 13 00 Description: Norwegian Poison Information Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Eye Irrit. 2; H319
Substance / mixture hazardous properties	Causes serious eye irritation.

2.2. Label elements

Hazard pictograms (CLP)

Signal word	Warning
Hazard statements	H319 Causes serious eye irritation.
Precautionary statements	P264 Wash hands 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. P337+P313 If eye irritation persists: Get medical advice / attention.

2.3. Other hazards

PBT / vPvB	Not PBT / vPvB.
Environmental effects	Large spills can negatively impact the aquatic environment locally due to an decrease in the pH-value.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Citric acid	CAS No.: 77-92-9 EC No.: 201-069-1 REACH Reg. No.: 01-2119457026-42	Eye Irrit. 2; H319	10 – 50 %	
Substance comments	See section 16 for explanation of hazard statements (H) listed above.			

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4. In case of unconsciousness or severe accidents, call 112.
Inhalation	Fresh air and rest. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing. Wash the skin immediately with soap and water.

	Get medical attention if any discomfort continues.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Use luke warm water to avoid damage to the eye. Contact physician if irritation persists.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. Drink a few glasses of water or milk. Get medical attention if any discomfort continues.

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

Acute symptoms and effects	Irritating to eyes and may cause redness and burning. Repeated exposure may cause skin irritation.

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

Other information	No specific information from the manufacturer.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Dry-powder, carbon dioxide (CO2), water mist, foam.
Improper extinguishing media	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The chemical is not classified as flammable.
Hazardous combustion products	May include, but is not limited to: Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Other information	Containers close to fire should be removed immediately or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Provide adequate ventilation. Avoid contact with skin and eyes. Use protective equipment as referred to in section 8.

6.2. Environmental precautions

Environmental precautionary measures	Prevent spillage of large quantity to sewer, waterway or ground.

6.3. Methods and material for containment and cleaning up

Clean up	Remove spillage with absorbent materials. Collect in a suitable container and dispose as hazardous waste according to section 13. Neutralise spilled material with crushed limestone, soda ash or lime. Wash the contaminated surface with water.

6.4. Reference to other sections

Other instructions	See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Provide adequate ventilation. Use protective equipment as referred to in section 8. Avoid inhalation of vapours and contact with skin and eyes.

Protective safety measures

Advice on general occupational hygiene	Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in a dry and cool place, tightly closed.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Protect from sunlight.

Conditions for safe storage

Advice on storage compatability	Keep away from: Strong oxidizing agents. Alkalies.

7.3. Specific end use(s)

Specific use(s)	See section 1.2.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Control parameters comments	Contains no substances with occupational exposure limit values. References (laws/regulations): Norwegian regulation on exposure limits: "FOR-2011-12-06-1358 Forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks– og grenseverdier)".

8.2. Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure	Provide adequate ventilation. The personal protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment. A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipment's suitability and durability will depend on application.

Eye / face protection

Eye protection equipment	Description: Wear tight-fitting goggles or face shield. Reference to relevant standard: EN 166 (Personal eye-protection. Specifications).
Additional eye protection measures	Eye wash facilities shall be available at the work place. Either a fixed eye wash facility connected to the drinking water (preferably warm water) or a portable disposable unit.

Hand protection

Suitable materials	Nitrile. Neoprene. Rubber (natural, latex). Viton rubber (fluor rubber). Butyl rubber.
Breakthrough time	Value: > 8 hour(s)
Thickness of glove material	Value: > 0,36 mm
Hand protection equipment	Description: Use chemical resistant gloves. The recommended material of gloves is recommended after a study of the single components in the chemical. The gloves abilities may vary among the different glove manufacturers. Reference to relevant standard: EN ISO 374 (Protective gloves against chemicals and micro-organisms). EN 420 (Protective gloves – General requirements and test methods).
Additional hand protection measures	Replace gloves if signs of wear and tear.

Skin protection

Recommended protective clothing	Description: Wear appropriate protective clothing to protect against skin contact.

Respiratory protection

Recommended respiratory protection	Description: In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2). Reference to relevant standard: EN 14387 (Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking). BS-EN 140 (Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking) BS-EN 136 (Respiratory protective devices. Full face masks. Requirements, testing, marking)

Appropriate environmental exposure control

Environmental exposure controls	Do not allow to enter into sewer, water system or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Fluid.
Colour	Clear
Odour	Odourless.
Odour limit	Comments: Not specified by the manufacturer.
pH	Status: In aqueous solution Comments: Not specified by the manufacturer.

Melting point / melting range	Comments: Not specified by the manufacturer.
Boiling point / boiling range	Comments: Not specified by the manufacturer.
Flash point	Comments: Not specified by the manufacturer.
Evaporation rate	Comments: Not specified by the manufacturer.
Flammability	Not relevant.
Explosion limit	Comments: Not specified by the manufacturer.
Vapour pressure	Comments: Not specified by the manufacturer.
Vapour density	Comments: Not specified by the manufacturer.
Relative density	Comments: See density.
Density	Value: 1,243 g/cm³ Comments: Applies to a 50% solution.
Solubility	Medium: Water Comments: Soluble.
Partition coefficient: n-octanol/ water	Comments: Not specified by the manufacturer.
Auto-ignition temperature	Comments: Not specified by the manufacturer.
Decomposition temperature	Comments: Not specified by the manufacturer.
Viscosity	Comments: Not specified by the manufacturer.
Explosive properties	Not explosive.
Oxidising properties	Not oxidizing.

9.2. Other information

Other physical and chemical properties

Physical and chemical properties	No further information is available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Under normal condtions and use there are not expected any reactivity hazards for this chemical.

10.2. Chemical stability

Stability	The chemical is stable under normal conditions of storage and use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Arise in contact with incompatible materials (section 10.5).

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Protect from direct sunlight.

10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents. Alkalies.

10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other toxicological data	Test data are available from the supplier/manufacturer.

Other information regarding health hazards

Assessment of acute toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of skin corrosion / irritation, classification	Based on available data, the classification criteria are not met.
Assessment of eye damage or irritation, classification	Causes serious eye irritation.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met.
Assessment of reproductive toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - single exposure, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - repeated exposure, classification	Based on available data, the classification criteria are not met.
Assessment of aspiration hazard, classification	Based on available data, the classification criteria are not met.

Symptoms of exposure

In case of ingestion	No specific information from the manufacturer.
In case of skin contact	Repeated exposure may cause skin irritation.
In case of inhalation	No specific information from the manufacturer.
In case of eye contact	Irritating to eyes and may cause redness and burning.

11.2 Other information

Other information	No further information is available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	The chemical is not classified as harmful to the environment. Test data are available from the supplier/manufacturer.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	The product is expected to be biodegradable.
Biodegradability	Value: 97 % Method: OECD 301 B Comments: Applies to CAS-nr.: 77-92-9. Test period: 28 day(s)

12.3. Bioaccumulative potential

Bioaccumulation, comments	Not expected to bioaccumulate. Log Pow = -1,72. Low potential for bioaccumulation. Applies to [Value]. CAS-nr.: 77-92-9

12.4. Mobility in soil

Mobility	Soluble in water. May be dispersed in soil and groundwater.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties	This chemical does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

Additional ecological information	Do not allow to enter into sewer, water system or soil. Acids cause decreased pH values in the water. A low pH value harms aquatic organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intented as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.
EWC waste code	EWC waste code: 160508 discarded organic chemicals consisting of or containing dangerous substances Classified as hazardous waste: Yes
NORSAS	7134 Organic acids

Other information	Do not empty into drains.

SECTION 14: Transport information

Dangerous goods	No

14.1. UN number

Comments	Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

14.2. UN proper shipping name

Comments	Not relevant.

14.3. Transport hazard class(es)

Comments	Not relevant.

14.4. Packing group

Comments	Not relevant.

14.5. Environmental hazards

Comments	Not relevant.

14.6. Special precautions for user

Special safety precautions for user	Not relevant.

14.7. Maritime transport in bulk according to IMO instruments

Ship type required	Data lacking.

SECTION 15: Regulatory information

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

References (laws/regulations)	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments. Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Norwegian regulation on waste, 01.06.2004 no. 930, with later amendments. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.
Declaration No.	608695

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
List of relevant H-phrases (Section 2 and 3)	H319 Causes serious eye irritation.
CLP classification, comments	Calculation method.
Abbreviations and acronyms used	ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road EWC: European Waste Code (a code from the EU's common classification system for waste) IATA: The International Air Transport Association ICAO: The International Civil Aviation Organisation IMDG: The International Maritime Dangerous Goods Code Log Pow: Partition coefficient: n-octanol / water OECD: Organisation for Economic Cooperation and Development. PBT: Persistent, Bioaccumulative and Toxic RID: The Regulations concerning the International Carriage of Dangerous Goods by Rail vPvB: very Persistent and very Bioaccumulative
Information added, deleted or revised	New Safety Data Sheet.
Checking quality of information	This SDS is quality controlled by Kiwa Kompetanse AS in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2015.
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