

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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Trade name: Katadyn Membrane Preservative (8013609)

Revision 4
 Revision date 2018-07-03

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

1.1. Product identifier

Product name	Katadyn Membrane Preservative
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Product Use	[SU3] Industrial uses: such as the use of the substance or preparation in industrial sites; [SU0] Other; [PC37] Water treatment chemicals;
Description	Preservative for RO membrane systems. FOR INDUSTRIAL USE.
Uses Advised Against	Anything other than the above.

1.3. Details of the supplier of the safety data sheet

Company	Avista Technologies (UK) Ltd	Distribution:	Katadyn Products Inc
Address	13 Nasmyth Square Houstoun Industrial Estate Livingston EH54 5GG United Kingdom		Pfäffikerstrasse 37 8310 Kempthal Switzerland
Telephone	+44 (0)131 449 6677		+41 44 839 21 11
Fax	+44 (0)131 449 5599		+41 44 839 21 99
Email	productsupport@avistatech.co.uk		customerservice@katadyn.ch
Email address of the competent person	sds@avistatech.co.uk		

1.4. Emergency telephone number


Emergency telephone number	+44 (0)131 449 6677 (GMT, English spoken, Mon - Fri; 08.00 - 17.00)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - EC 1272/2008	Eye Irrit. 2: H319;
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2.2. Label elements

Hazard pictograms	
Signal Word	Warning
Hazard Statement	Eye Irrit. 2: H319 - Causes serious eye irritation.
Precautionary Statement: Prevention	Hands P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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2.2. Label elements

Precautionary Statement: Response	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.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
Citric Acid.		77-92-9	201-069-1	01-2119457026-42	30 - 40%	Eye Irrit. 2: H319;	

SECTION 4: First aid measures

4.1. Description of first aid measures

Self-protection of the first aider	Use appropriate personal protective equipment. Avoid contact with skin and eyes. Ensure adequate ventilation of the working area. Avoid breathing dust/fume/gas/mist/vapours/spray.
Inhalation	Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move person to fresh air; if effects occur, consult a physician.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash off immediately with plenty of soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	DO NOT INDUCE VOMITING. Ingestion may cause nausea and vomiting. Seek medical attention if irritation or symptoms persist.

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

Inhalation	None known.
Eye contact	Causes serious eye irritation.
Skin contact	None known.
Ingestion	None known.

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

	If you feel unwell, seek medical advice (show the label where possible). Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

	Use extinguishing media appropriate to the surrounding fire conditions. EXTINGUISHING MEDIA: Water spray. Foam. Dry chemical. Carbon dioxide (CO ₂). Do NOT use water jet.
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5.2. Special hazards arising from the substance or mixture

	In case of fire and/or explosion do not breathe fumes. Burning produces irritating, toxic and obnoxious fumes.
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5.3. Advice for firefighters

	Wear suitable respiratory equipment when necessary. In case of fire and/or explosion do not breathe fumes.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	Ensure operatives are trained to minimise exposures. Ensure suitable personal protection during removal of spillages. Ensure adequate ventilation of the working area. Wear suitable protective
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6.1. Personal precautions, protective equipment and emergency procedures

clothing, gloves and eye/face protection. Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not allow runoff water to enter sewers or drains. Do not empty into drains; dispose of this material and its container in a safe way. Prevent further spillage if safe.

6.3. Methods and material for containment and cleaning up

Sweep or shovel-up spillage and remove to a safe place. Dry sweeping is not recommended. If necessary, light water spray will reduce dust for dry sweeping, but over-wetting may produce very slippery walking surfaces. Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

6.4. Reference to other sections

See section 8 & 13 for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure operatives are trained to minimise exposures. Adopt best Manual Handling considerations when handling, carrying and dispensing. Wear suitable protective equipment. Avoid contact with eyes and skin. Do not eat, drink or smoke in areas where this product is used or stored. Use in a well ventilated area. Avoid formation of dust.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Bund storage facilities to prevent soil and water pollution in the event of spillage. Keep in a cool, dry, well ventilated area. Store in correctly labelled containers. Keep away from food, drink and animal feedingstuffs.

Suitable packaging

Plastic containers.

7.3. Specific end use(s)

Water treatment chemicals. See section 1.2 for further information.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

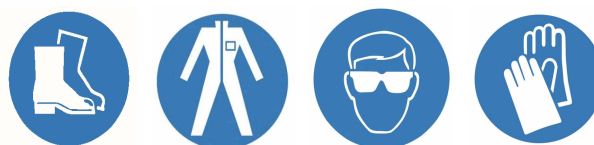
No data is available on this product.

DNEL: Derived no-effect level.

Citric acid: Available hazard data do not enable the derivation of a DNEL for eye irritant effects.

Citric acid predicted no effect concentration - Aquatic Compartment - PNEC Aqua (Marine water) 0.044 mg/l - PNEC Aqua (freshwater) 0.44 mg/l. STP (Sewage Treatment Plant) - PNEC STP >1000 mg/l.

8.2. Exposure controls



8.2.1. Appropriate engineering controls

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation of the working area. Good hygiene practices and housekeeping measures. A washing facility/water for eye skin cleaning purposes should be present.

8.2.2. Individual protection measures

Use appropriate personal protective equipment. Avoid contact with eyes and skin. Wash all contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Eye / face protection

Approved safety goggles. (Standard EN 166).

Skin protection - Handprotection

Chemical resistant gloves (PVC). (Standard EN374-1). Material of Gloves: Nitrile Rubber NBR; Penetration time of Glove material: Thickness 0.4 mm; break-through time: 480 min: material:

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8.2. Exposure controls

Respiratory protection	Nitrile; permeation: level 6.
	Not normally required. In case of insufficient ventilation, wear suitable respiratory equipment. Suitable half mask respirator with filter P3 (EN 141ABEK1).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Powder
Colour	Off white
Odour	Slight
pH	2 - 3 (2% w/w in DI water)
Melting point	Not applicable.
Initial boiling point	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Autoignition temperature	Not applicable.
Viscosity	No data available
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Solubility	Miscible in water

9.2. Other information

Conductivity	No data available
Surface tension	Not applicable.
Bulk Density	0.63 - 0.96 Kg/litre

SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	None.
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10.4. Conditions to avoid

	Keep away from direct sunlight. Keep in a cool, dry, well ventilated area.
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10.5. Incompatible materials

	Avoid contact with: Oxidising agents, Alkalis.
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10.6. Hazardous decomposition products

	None known.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No known adverse health effects.
Skin corrosion/irritation	Based on available data, the classification are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >2000 mg/kg bw/day.
	Based on available data, the classification are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >2000 mg/kg bw/day.

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11.1. Information on toxicological effects

Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity Reproductive toxicity STOT-single exposure STOT-repeated exposure Aspiration hazard Repeated or prolonged exposure	<p>Irritating to eyes.</p> <p>Citric acid: Test result: Irritating to eyes. (OECD 405).</p> <p>Based on available data, the classification criteria are not met. No sensitization effects reported.</p> <p>Based on available data, the classification criteria are not met. No mutagenic effects reported.</p> <p>Based on available data, the classification criteria are not met. No carcinogenic effects reported.</p> <p>Based on available data, the classification criteria are not met. No teratogenic effects reported.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Avoid contact with eyes and skin. Avoid prolonged or repeated exposure.</p>
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SECTION 12: Ecological information

12.2. Persistence and degradability

	Not readily biodegradable.
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12.3. Bioaccumulative potential

	The product has low potential for bioaccumulation.
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12.4. Mobility in soil

	The product is predicted to have high mobility in soil. Miscible in water.
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12.5. Results of PBT and vPvB assessment

	The product is predicted to be not classified as PBT or vPvB. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
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12.6. Other adverse effects

	None known.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

	Dispose of in compliance with all local and national regulations.
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Disposal methods

	Do not empty into drains; dispose of this material and its container in a safe way. Dispose of in compliance with all local and national regulations.
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Disposal of packaging

	Empty containers can be sent for disposal or recycling. Empty containers can be sent to landfill after cleaning, if in compliance with once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated.
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SECTION 14: Transport information

14.1. UN number

	The product is not classified as dangerous for carriage.
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14.2. UN proper shipping name

	The product is not classified as dangerous for carriage.
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14.3. Transport hazard class(es)

	The product is not classified as dangerous for carriage.
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14.4. Packing group

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14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

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

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

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

Regulations	<p>In accordance with REACH Regulation (EC) No 1907/2006 as last amended with respect to SDS provisions by Commission Regulation (EU) 2015/830.</p> <p>None of the substances is included on the candidate list of Substances of Very High Concern for authorisation (Annex XIV) under REACH regulation (EC) No. 1907/2006.</p> <p>National regulations - Germany. Water Hazard Class.: 1.</p>
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15.2. Chemical safety assessment

None.

Further information

FOR INDUSTRIAL USE.

SECTION 16: Other information

Other information

Revision	This document differs from the previous version in the following areas: 16 - Data sources.
Data sources	<p>EU Classification: This safety data sheet was prepared in accordance with EC regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.</p> <p>Existing ECHA registration for. Citric acid (CAS No. 77-92-9).</p> <p>Legend</p> <p>LTEL - Long term exposure limit STEL - Short term exposure limit DNEL - Derived no effect level PNEC - Predicted no effect concentration PBT - PBT: Persistent, Bioaccumulative and toxic vPvB - vPvT: very persistent and very toxic OECD - Organisation of Economic Cooperation and Development.</p>
Text of Hazard Statements in Section 3	Eye Irrit. 2: H319 - Causes serious eye irritation.

General information

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Further information

Material safety data sheets in languages other than English may be rewritten partially with the help of translations programs. We unfortunately cannot guarantee the correct translations, errors can sometimes occur, caused through incorrect translating of individual sentences. However the product classifications are correct and in accordance with current regulations. We recommend that

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Further information

an English language MSDS is requested to allow for direct comparison.

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.
