

**Section 1. Identification of the material and the supplier**

Product: **Aperlan Poka-Yoke Agent A**  
 Product Code: 41010058  
 Product Use: Disinfectant for medical device. Restricted to professional users.

**New Zealand Distributor:** **Getinge Australia (New Zealand Branch)**  
 Address: 600 Great South Road  
 Building B, Level 2,  
 Ellerslie, Auckland, 1051  
 New Zealand  
 Telephone: +64 9 272 9039  
**Emergency Telephone: +64 9 272 9039 or 0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 26 April 2023

**Section 2. Hazards Identification**

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

**EPA Approval Code:**  
**Oxidising Liquids and Solids (Corrosive) Group Standard 2020 – HSR002632**

**Pictograms**



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Oxidising liquids Cat. 2	H272	May intensify fire oxidiser.
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Acute inhalation toxicity Cat. 4	H332	Harmful if inhaled.
specific target organ toxicity – single exposure Cat. 3 respiratory tract irritation	H335	May cause respiratory irritation.
Corrosive to metals Cat. 1	H290	May be corrosive to metals.
Skin corrosion Cat. 1C	H314	Causes severe skin burns and eye damage.
Serious eye damage Cat. 1	H318	Causes serious eye damage.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.

P103	Read carefully and follow all instructions.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep or store away from clothing and combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P234	Keep only in original packaging.
P260	Do not breathe fumes, gas, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove 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.
P370 + P378	In case of fire: Use dry powder, foam and water spray jet to extinguish.

Storage Code	Storage Statement
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

### Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Peracetic acid	2 -10	79-21-0
Hydrogen peroxide	>20	7722-84-1
Acetic acid	<10	64-19-7

### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
If on Skin	Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. Seek immediate medical attention.
If Swallowed	Rinse mouth. Do NOT induce vomiting. Never give anything to the mouth of an unconscious person. Give small amounts of water to drink. If

vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTER or doctor/physician if you feel unwell.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

### Most important symptoms and effects, both acute and delayed

Symptoms:

**Ingestion:** Harmful if swallowed.  
**Inhalation:** Harmful if inhaled. May cause respiratory irritation.  
**Skin:** Causes severe skin burns.  
**Eye:** Causes serious eye damage.

**Notes to Doctor:** Treat symptomatically. For specialist advice physicians should contact the Poisons Information Service.

## Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Oxidising Liquid
<b>Hazards from combustion products</b>	Oxygen.
<b>Suitable Extinguishing media</b>	Dry powder, Foam and Water spray jet. Do not use: Carbon dioxide (CO <sub>2</sub> ) Do not use a solid water stream as it may scatter and spread fire.
<b>Precautions for firefighters and special protective clothing</b>	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Cool down closed containers exposed to fire with water spray.
<b>HAZCHEM CODE</b>	<b>2P</b>

## Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapor. Remove all sources of ignition.

Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

Soak up with inert absorbent material. Unsuitable material for picking up: Absorbent material, organic Kieselguhr, sawdust.

Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly. Flush with water. Dispose of according to Local Regulations detailed in Section 13.

## Section 7. Handling and Storage

After opening, use within: 2 months.

### Precautions for Handling:

- Read carefully and follow all instructions.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep or store away from clothing and combustible materials.
- Take any precaution to avoid mixing with combustibles.
- Keep only in original packaging.

- Do not breathe fumes, gas, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Provide sufficient air exchange and/or exhaust in work rooms.
- Wear protective clothing as detailed in Section 8.
- Handle and open container with care.
- Never return unused material to storage receptacle.
- Take off all contaminated clothing immediately.

**Precautions for Storage:**

- Keep out of reach of children.
- Store locked up.
- Store in corrosive resistant container with a resistant inner liner.
- Store in a well-ventilated place. Keep container tightly closed.
- Keep only in the original container.
- Suitable container and packaging materials for safe storage:  
Plastic container of HDPE, Polyethylene glass.
- Unsuitable materials for containers: Metals
- Store in a receptacle equipped with a vent.
- Keep in a banded area.
- Keep away from heat. Keep away from direct sunlight. Store in cool place.
- Do not keep the container sealed.
- Store in up-right position only.
- Recommended storage temperature: 5 - 30°C.
- Do not store together with metals, alkalis, reducing agents or combustible substances.

**Section 8 Exposure Controls / Personal Protection**

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance		TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Hydrogen peroxide	[7722-84-1]	1	1.4	-	-
Acetic acid	[64-19-7]	10	25	15	37

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13<sup>TH</sup> EDITION.

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006**

**Hydrogen peroxide**

End Use	Exposure routes	Potential health effects	Value
Workers	Inhalation	Local effects, short term exposure	3 mg/m <sup>3</sup>
Workers	Inhalation	Local effects, long term exposure	1.4 mg/m <sup>3</sup>

**Acetic acid**

End Use	Exposure routes	Potential health effects	Value
Workers	Inhalation	Acute local effects, short term exposure	25 mg/m <sup>3</sup>
Workers	Inhalation	Chronic effects, long term exposure	25 mg/m <sup>3</sup>

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907 / 2006**

**Hydrogen peroxide**

Environmental Compartment	Value
Product Name: Aperlan Poka-Yoke Agent A Date of SDS: 26 April 2023	SDS Prepared by: Technical Compliance Consultants (NZ) Ltd Tel: 64 9 475 5240 www.techcomp.co.nz

Fresh water	0.0126 mg/l
Marine water	0.0126 mg/l
Water	0.0138 mg/l
Effects on waste water treatment plants	4.66 mg/l
Fresh water sediment	0.047 mg/kg
Marine sediment	0.047 mg/kg
Soil	0.0023 mg/kg

### Acetic acid

Environmental Compartment	Value
Fresh water	3.058 mg/l
Marine water	0.3058 mg/l
Intermittent use/release	30.58 mg/l
Effects on waste water treatment plants	85 mg/l
Fresh water sediment	11.36 mg/kg
Marine sediment	1.136 mg/kg
Soil	0.478 mg/kg

### Engineering Controls

Ensure adequate ventilation is available. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protection Equipment:



<b>Eyes</b>	Safety glasses with side-shields conforming to EN166 Face-shield
<b>Hands</b>	The selected protective gloves have to satisfy the specifications the standard EN 374 derived from it. Remarks: Prolonged contact: Nitrile rubber gloves e.g. Camatril (>120 Min., layer thickness: 0.40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0.70 mm). Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm).
<b>Skin</b>	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear as appropriate: ·Chemical resistant apron ·Boots ·Neoprene
<b>Respiratory</b>	If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time. Combination filter: A2B2E2K2 Hg NO P3 P D/ CO 20 P3 R D
<b>Thermal Hazards</b>	Product contains small amounts of methyl alcohol (methanol) which is flammable (The mixture is not flammable). Handle and store product away from sources of heat and ignition (sparks, open flames, etc.).
<b>Hygiene Measures</b>	Wash hands before breaks and after work. Avoid contact with skin and eyes. Do not breathe vapor.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour</b>	Vinegar-like
<b>Odour Threshold</b>	Not available

<b>pH @ 20°C</b>	<1
<b>Boiling Point</b>	Approx 100°C
<b>Melting Point</b>	<-26°C
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Relative Density @ 20°C</b>	1.12 g/cm <sup>3</sup>
<b>Water Solubility</b>	Completely soluble
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Self-Accelerating decomposition temperature (SADT):</b>	>60 °C
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not applicable
<b>Oxidising properties</b>	Oxidising
<b>Other</b>	Corrosive to metals, Aluminium and soft steel.

### Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Keep away from combustible material. To avoid thermal decomposition, do not overheat.
<b>Conditions to Avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatible Materials</b>	Reducing agents, Acid chlorides, Strong acids and strong bases, Aldehydes and Metals.
<b>Hazardous Decomposition Products</b>	Oxygen.

### Section 11 Toxicological Information

#### Acute Effects:

<b>Swallowed</b>	Harmful if swallowed.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Harmful if inhaled. May cause respiratory irritation.
<b>Eye</b>	Causes serious eye damage.
<b>Skin</b>	Causes severe skin burns.

#### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	Not applicable.

#### Acute Toxicity:

<b>Chemical Name</b>	<b>Oral – LD50</b>	<b>Dermal – LD50</b>	<b>Inhalation – LC50</b>
Product (Aperlan Poka-	1043 mg/kg	>2000mg/kg	2.52 mg/l/4hr

Yoke Agent A)	Method: Calculation method	Method: Calculation method	Test atmosphere: dust/mist Method: Calculation method
Peracetic acid	85 - 153 mg/kg (rat)	1100 mg/kg (rat)	0.204 mg/l (rat) Exposure time: 4 h Test atmosphere: dust/mist
Hydrogen peroxide	801 - 872 mg/kg (Rat)	6500 mg/kg (rat)	-
Acetic acid	3310 mg/kg (rat)	>2000 mg/kg(Rabbit)	> 39.8 mg/l (rat) Exposure time: 4 h Test atmosphere: vapour

## Section 12. Ecotoxicological Information

### Toxicity

#### Components

##### Peracetic acid

Toxicity to fish: LC50 : 13 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna): 3.3 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae: Remarks: No data available

##### Hydrogen peroxide

Toxicity to fish: LC50 (Fish): 16.4 - 37.4 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna): 2.4 mg/l  
Exposure time: 48 h

Toxicity to algae: ErC50 (Skeletonema costatum (marine diatom)): 1.38 mg/l  
Exposure time: 72 h  
NOEC (Skeletonema costatum (marine diatom)): 0.63 mg/l  
Exposure time: 72 h

##### Acetic acid

Toxicity to fish: LC50 (Gambusia affinis (Mosquito fish)): 251 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna): 95 mg/l  
Exposure time: 24 h

Toxicity to algae: EC100 (Euglena gracilis): 720 mg/l  
Exposure time: 0.25 h

### Persistence and degradability

#### Components

**Peracetic acid**

Biodegradability	Result: Readily biodegradable. Method: OECD Test Guideline 301
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**Hydrogen peroxide**

Biodegradability	Result: Totally biodegradable Method: OECD Test Guideline 301
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**Acetic acid**

Biodegradability	Result: Totally biodegradable Method: OECD 301D / EEC 84/449 C6
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**Bioaccumulative potential****Components****Peracetic acid**

Bioaccumulation:	Remarks: Does not bioaccumulate
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**Hydrogen peroxide**

Bioaccumulation:	Remarks: Does not bioaccumulate
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**Acetic acid**

Bioaccumulation:	Remarks: Bioaccumulation is unlikely
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**Mobility in soil****Components****Peracetic acid**

Mobility:	Medium: Water Remarks: Hydrolyses readily
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**Hydrogen peroxide**

Mobility:	Medium: Water Remarks: Hydrolyses readily
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**Acetic acid**

Mobility:	Remarks: No data available
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**Results of PBT and vPvB assessment****Product**

Assessment:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1 % or higher.
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**Section 13. Disposal Considerations****Disposal Method:**

Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to

Product Name: Aperlan Poka-Yoke Agent A  
Date of SDS: 26 April 2023

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
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significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product or contaminated spill media is labelled "Hazardous Waste – Oxidising, Corrosive" and that the label also has the Oxidising, Corrosive Pictogram, waste type identifier, and the business name, address, and phone number.

**Disposal methods to avoid:** None known.

## Section 14 Transport Information

**This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020 and SNZ HB 5433:2021**



### Road, Rail, Sea and Air Transport

<b>UN No</b>	3149
<b>Class - Primary</b>	5.1
<b>Subsidiary Risk</b>	8
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED
<b>Marine Pollutant</b>	No
<b>Special Provisions</b>	If the product's individual container is below 1L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

## Section 15 Regulatory Information

### **EPA Approval No:**

Oxidising Liquids and Solids (Corrosive) Group Standard 2020 – HSR002632

Trigger quantities for this substance:

<b>HSW (HS) Regulations 2017 and EPA Notices</b>	<b>Trigger Quantity</b>
Certified Handler	Not required
Location Certificate	50L (open/manufactured) / 500L (closed)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	500L
Emergency Response Plan	500L
Secondary Containment	500L
Restriction of Use	Only use for the intended purpose.

## Section 16 Other Information

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.

TLV Threshold Limit Value-an exposure limit set by responsible authority.  
UEL Upper Explosive Level  
WES Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand distributor, if further information is required.

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