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

1.1. Product identifier
Product name: ACTRIL™ Cold Sterilant
Product code: 176-02-053 / 176-02-056 / 3024982

1.2. Relevant identified uses of the substance or mixture and uses advised against
1.2.1. Relevant identified uses
Use of the substance/mixture: Sterilization, Disinfection, and Sanitization of Medical Equipment

1.2.2. Uses advised against
No additional information available.

1.3. Details of the supplier of the safety data sheet
Meditators Inc.
14605 28th Avenue North
Minneapolis, MN 55447-4822 USA
Tel: +1.763.553.3300
Toll Free: +1.800.444.4729
Fax: +1.763.553.3387
www.meditators.com

European Authorised Representative
Cantel Medical (Italy) S.r.l.
Via Laurentina, 169
00071 Pomezia (RM) Italy
Tel: +39.06.9145399
Fax: +39.06.9146099
www.cantelmedical.eu

1.4. Emergency telephone number
Emergency number: CHEMTREC (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified.

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified.

Adverse physicochemical, human health and environmental effects
No additional information available.

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
No labelling applicable.

2.3. Other hazards
No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable.

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
</table>
| Acetic acid         | (CAS No) 64-19-7   | 5.2| Flam. Liq. 3, H226
|                     | (EC no) 200-580-7  |   | Acute Tox. 4 (Dermal), H312
|                     | (EC index no) 607-002-00-6 |   | Skin Corr. 1A, H314 |
| Hydrogen peroxide   | (CAS No) 7722-84-1 | 1.0| Ox. Liq. 1, H271
|                     | (EC no) 231-765-0  |   | Acute Tox. 4 (Oral), H302
|                     | (EC index no) 008-003-00-9 |   | Acute Tox. 4 (Inhalation), H332
|                     |                    |   | Skin Corr. 1A, H314 |

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid</td>
<td>(CAS No) 64-19-7</td>
<td>(10 &lt;= C &lt; 25) Eye Irrit. 2, H319</td>
</tr>
<tr>
<td></td>
<td>(EC no) 200-580-7</td>
<td>(10 &lt;= C &lt; 25) Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td>(EC index no) 607-002-00-6</td>
<td>(25 &lt;= C &lt; 90) Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(C &gt;= 90) Skin Corr. 1A, H314</td>
</tr>
</tbody>
</table>
**SECTION 4: First aid measures**

4.1. Description of first aid measures

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: In case of contact, immediately flush skin with plenty of water. Get medical attention if irritation develops and persists.

First-aid measures after eye contact: In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Symptoms/injuries after inhalation: May cause respiratory tract irritation.

Symptoms/injuries after skin contact: May cause slight skin irritation in sensitive individuals.

Symptoms/injuries after eye contact: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/injuries after ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

**SECTION 5: Firefighting measures**

5.1. Extinguishing media

Suitable extinguishing media: Treat for surrounding material.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
## 6.2. Environmental precautions

Relevant water authorities should be notified of any large spillage to water course or drain.

## 6.3. Methods and material for containment and cleaning up

For containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up: Scoop up material and place in a disposal container.

## 6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling: Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.

Hygiene measures: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep out of the reach of children. Keep container tightly closed.

#### 7.3. Specific end use(s)

Not available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Acetic acid (64-19-7)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU IOELV TWA (mg/m³)</td>
<td>25 mg/m³</td>
<td></td>
</tr>
<tr>
<td>EU IOELV TWA (ppm)</td>
<td>10 ppm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hydrogen peroxide (7722-84-1)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom WEL TWA (mg/m³)</td>
<td>1.4 mg/m³</td>
<td></td>
</tr>
<tr>
<td>United Kingdom WEL TWA (ppm)</td>
<td>1 ppm</td>
<td></td>
</tr>
<tr>
<td>United Kingdom WEL STEL (mg/m³)</td>
<td>2.8 mg/m³</td>
<td></td>
</tr>
<tr>
<td>United Kingdom WEL STEL (ppm)</td>
<td>2 ppm</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2. Exposure controls

Appropriate engineering controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Safety glasses or goggles are recommended when using product.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Acidic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>1.5 - 2</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Relative vapour density at 20 °C: No data available
Relative density: 1.01
Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidising properties: No data available
Explosive limits: No data available

9.2. Other information
No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reaction known under conditions of normal use.

10.2. Chemical stability
Stable under normal storage conditions.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified.

**ACTRIL™ Cold Sterilant**

<table>
<thead>
<tr>
<th>dose form</th>
<th>toxicity level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat</td>
<td>&gt; 20 mg/l/4h</td>
</tr>
</tbody>
</table>

**Acetic acid (64-19-7)**

<table>
<thead>
<tr>
<th>dose form</th>
<th>toxicity level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3310 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>1060 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat</td>
<td>11.4 mg/l/4h</td>
</tr>
</tbody>
</table>

**Hydrogen peroxide (7722-84-1)**

<table>
<thead>
<tr>
<th>dose form</th>
<th>toxicity level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>801 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat</td>
<td>2 g/m³/4h</td>
</tr>
</tbody>
</table>

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.
Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: Not considered to be harmful to aquatic life.

**Acetic acid (64-19-7)**

<table>
<thead>
<tr>
<th>dose form</th>
<th>toxicity level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes 1</td>
<td>79 mg/l (96 h - Pimephales promelas [static])</td>
</tr>
</tbody>
</table>

50095-092-EN/D Date of issue: 27/10/2014 Revision date: 11/17/2020 176-02-053 / 176-02-056 / 3024982 Page 4 of 7
**Acetic acid (64-19-7)**

<table>
<thead>
<tr>
<th>EC50 Daphnia 1</th>
<th>65 mg/l (48 h - Daphnia magna [Static])</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>75 mg/l (96 h - Lepomis macrochirus [static])</td>
</tr>
</tbody>
</table>

**Hydrogen peroxide (7722-84-1)**

<table>
<thead>
<tr>
<th>LC50 fishes 1</th>
<th>16.4 mg/l (96 h - Pimephales promelas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia 1</td>
<td>18 - 32 mg/l (48 h - Daphnia magna [Static])</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>18 - 56 mg/l (96 h - Lepomis macrochirus [static])</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

**ACTRIL™ Cold Sterilant**

Persistence and degradability: Not established.

### 12.3. Bioaccumulative potential

**ACTRIL™ Cold Sterilant**

Bioaccumulative potential: Not established.

**Acetic acid (64-19-7)**

Log Pow: -0.31 (at 20 °C)

**Hydrogen peroxide (7722-84-1)**

BCF fish 1: (no bioaccumulation)

### 12.4. Mobility in soil

No additional information available.

### 12.5. Results of PBT and vPvB assessment

No additional information available.

### 12.6. Other adverse effects

No additional information available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

### SECTION 14: Transport information

In accordance with ADR

#### 14.1. UN number

Not regulated for transport.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

Not applicable.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

Dangerous for the environment: No.

Marine pollutant: No.

Other information: No supplementary information available.

#### 14.6. Special precautions for user

Special transport precautions: Do not handle until all safety precautions have been read and understood.

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

Not applicable.

### SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions.

Contains no REACH candidate substance.

#### 15.1.2. National regulations

No additional information available.
15.2. Chemical safety assessment

No chemical safety assessment has been carried out.
### SECTION 16: Other information

**Indication of changes:**

<table>
<thead>
<tr>
<th>3.2</th>
<th>Modified</th>
</tr>
</thead>
</table>

**Data sources:**


**Other information:**

None.

**Full text of R-, H- and EUH-phrases:**

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation)</th>
<th>Acute toxicity (inhal.), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Dermal)</td>
<td>Acute toxicity (dermal), Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Flam. Liq. 3</td>
<td>Flammable liquids, Category 3</td>
</tr>
<tr>
<td>Ox. Liq. 1</td>
<td>Oxidising Liquids, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation, Category 1A</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour</td>
</tr>
<tr>
<td>H271</td>
<td>May cause fire or explosion; strong oxidiser</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>R5</td>
<td>Heating may cause an explosion</td>
</tr>
<tr>
<td>R8</td>
<td>Contact with combustible material may cause fire</td>
</tr>
<tr>
<td>R10</td>
<td>Flammable</td>
</tr>
<tr>
<td>R20/22</td>
<td>Harmful by inhalation and if swallowed</td>
</tr>
<tr>
<td>R21</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>R35</td>
<td>Causes severe burns</td>
</tr>
<tr>
<td>C</td>
<td>Corrosive</td>
</tr>
<tr>
<td>O</td>
<td>Oxidising</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

**Disclaimer:** We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

ACTRIL™ is a trademark of Medivators Inc.