SAFETY DATA SHEET
IODOPHOR MULTI

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : IODOPHOR MULTI
Other means of identification : Not applicable.
Recommended use : Sanitizer
Product dilution information : 0.15 % - 0.15 %

Company : Ecolab New Zealand
2 Daniel Place
Te Rapa, Hamilton New Zealand
+64 7 958 2319

Emergency telephone number : 0800 243 622 (0800 CHEMCALL)
Issuing date : 07.07.2017

Section: 2. HAZARDS IDENTIFICATION

HSNO Hazard classification

Product AS SOLD
Corrosive to Metals : 8.1 A
Acute toxicity (Oral) : 6.1 E
Skin irritation : 6.3 B
Eye irritation : 6.4 A
Skin sensitization : 6.5 B
Aquatic toxicity (Acute or Chronic) : 9.1 C

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS Label element

Product AS SOLD
Hazard pictograms : ☐ ☐

Signal Word : Warning

Hazard Statements : May be corrosive to metals.
May be harmful if swallowed.
Causes mild skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Precautionary Statements : Prevention:
Keep only in original container. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ eye protection/
face protection.

Response:
IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/ physician if you feel unwell. Specific treatment (see supplemental first aid instructions on this label). If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage:
Store in corrosive resistant container with a resistant inner liner.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

<table>
<thead>
<tr>
<th>Precautionary Statements</th>
<th>Prevention:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wash hands thoroughly after handling.</td>
</tr>
<tr>
<td></td>
<td>Response: Get medical advice/ attention if you feel unwell.</td>
</tr>
</tbody>
</table>

| Storage: |
| Store in accordance with local regulations. |

<table>
<thead>
<tr>
<th>Other hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not mix with bleach or other chlorinated products – will cause chlorine gas.</td>
</tr>
</tbody>
</table>

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Product AS SOLD |
| Pure substance/mixture | Mixture |

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration: (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol ethoxylate</td>
<td>9016-45-9</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

No hazardous ingredients

Section: 4. FIRST AID MEASURES

| Product AS SOLD |
| In case of eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention. |

| In case of skin contact | Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |

| If swallowed | Rinse mouth. Get medical attention if symptoms occur. |
| If inhaled | Get medical attention if symptoms occur. |

Protection of first-aiders: If potential for exposure exists refer to Section 8 for specific personal protective equipment.
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Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

<table>
<thead>
<tr>
<th>Product AT USE DILUTION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In case of eye contact  : Rinse with plenty of water.</td>
<td></td>
</tr>
<tr>
<td>In case of skin contact : Rinse with plenty of water.</td>
<td></td>
</tr>
<tr>
<td>If swallowed            : Rinse mouth. Get medical attention if symptoms occur.</td>
<td></td>
</tr>
<tr>
<td>If inhaled              : Get medical attention if symptoms occur.</td>
<td></td>
</tr>
</tbody>
</table>

Section: 5. FIREFIGHTING MEASURES

Product AS SOLD

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Decomposition products may include the following materials:
Carbon oxides
Oxides of phosphorus

Special protective equipment for firefighters : Use personal protective equipment.

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Hazchem Code : 2R

Section: 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

Personal precautions, : Refer to protective measures listed in sections 7 and 8.
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protective equipment and emergency procedures

Environmental precautions : No special environmental precautions required.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AS SOLD
Emergency Management Trigger Levels

The following trigger level applies:

Emergency Plan : 1,000 L

Signage : 1,000 L

Section: 7. HANDLING AND STORAGE

Product AS SOLD
Advice on safe handling : Do not ingest. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not mix with bleach or other chlorinated products – will cause chlorine gas.


Storage temperature : 0 °C to 30 °C

Product AT USE DILUTION
Advice on safe handling : Wash hands after handling. For personal protection see section 8.


Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>WES-TWA</td>
<td>1 mg/m3</td>
<td>NZ OEL</td>
</tr>
</tbody>
</table>

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection : Wear the following personal protective equipment: Standard glove type.
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Laminate film  
Nitrile  
Unsupported neoprene  
PVC  
Natural rubber  
Neoprene/natural rubber blend  

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Skin protection**  
: No special protective equipment required.

**Respiratory protection**  
: No personal respiratory protective equipment normally required.

Refer to AS/NZS 1715 and AS/NZS 1716 for selection, use and maintenance of respiratory protective equipment as applicable.

**Hygiene measures**  
: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

### Product AT USE DILUTION

**Engineering measures**  
: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Personal protective equipment**

**Eye protection**  
: No special protective equipment required.

**Hand protection**  
: No special protective equipment required.

**Skin protection**  
: No special protective equipment required.

**Respiratory protection**  
: No personal respiratory protective equipment normally required.  
Refer to AS/NZS 1715 and AS/NZS 1716 for selection, use and maintenance of respiratory protective equipment as applicable.

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### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th></th>
<th><strong>Product AS SOLD</strong></th>
<th><strong>Product AT USE DILUTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>liquid</td>
<td>liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>opaque, red brown</td>
<td>light yellow</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>odourless</td>
<td>iodine</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>2.0, (100 %)</td>
<td>2.5 - 4.5</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Upper explosion limit</strong></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td><strong>Lower explosion limit</strong></td>
<td>no data available</td>
<td></td>
</tr>
</tbody>
</table>
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Vapour pressure : no data available
Relative vapour density : no data available
Relative density : 1.048 - 1.068
Water solubility : no data available
Solubility in other solvents : no data available
Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : no data available
Thermal decomposition : no data available
Viscosity, kinematic : no data available
Explosive properties : no data available
Oxidizing properties : no data available
Molecular weight : no data available
VOC : no data available

Section: 10. STABILITY AND REACTIVITY

Product AS SOLD

Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid : None known.
Incompatible materials : Bases
                      Metals
                      Organic materials
Hazardous decomposition products : Decomposition products may include the following materials:
                                  Carbon oxides
                                  Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD

Eyes : Causes serious eye irritation.
Skin : Causes mild skin irritation. May cause allergic skin reaction.
Ingestion : May be harmful if swallowed.
Inhalation : Health injuries are not known or expected under normal use.
Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes : Health injuries are not known or expected under normal use.
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<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Health injuries are not known or expected under normal use.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Health injuries are not known or expected under normal use.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Health injuries are not known or expected under normal use.</td>
</tr>
<tr>
<td>Chronic Exposure</td>
<td>Health injuries are not known or expected under normal use.</td>
</tr>
</tbody>
</table>

### Experience with human exposure

#### Product AS SOLD

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Redness, Pain, Irritation</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Redness, slight irritation, Allergic reactions</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Abdominal pain</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No symptoms known or expected.</td>
</tr>
</tbody>
</table>

#### Product AT USE DILUTION

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No symptoms known or expected.</td>
</tr>
</tbody>
</table>

### Toxicity

#### Product AS SOLD

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Acute toxicity estimate : 4,942 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Acute toxicity estimate : &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>no data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>no data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>no data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Reproductive effects</td>
<td>no data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>no data available</td>
</tr>
</tbody>
</table>

### Components
SAFETY DATA SHEET

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Acute inhalation toxicity: Phosphoric acid
4 h LC50 rat: 0.962 mg/l

Section: 12. ECOLOGICAL INFORMATION

Product AS SOLD
Ecotoxicity
Environmental Effects: Harmful to aquatic life with long lasting effects.

Product
Toxicity to fish: no data available
Toxicity to daphnia and other aquatic invertebrates: no data available
Toxicity to algae: no data available

Components
Toxicity to fish: Nonylphenol ethoxylate
96 h LC50 Fish: 1.3 mg/l

Components
Toxicity to daphnia and other aquatic invertebrates: Phosphoric acid
48 h EC50 Daphnia magna (Water flea): > 100 mg/l

Components
Toxicity to algae: Phosphoric acid
72 h EC50 Desmodesmus subspicatus (green algae): > 100 mg/l

Persistence and degradability
Product AS SOLD
Poorly biodegradable

Bioaccumulative potential
no data available

Mobility in soil
no data available

Other adverse effects
no data available

Section: 13. DISPOSAL CONSIDERATIONS

Product AS SOLD
Disposal methods: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

The product should not be allowed to enter drains, water courses or the soil.

Disposal considerations: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and
Product AT USE DILUTION
Disposal methods : Diluted product can be flushed to sanitary sewer.
Disposal considerations : Dispose of in accordance with local, state, and federal regulations.

Section: 14. TRANSPORT INFORMATION

Product AS SOLD
The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (NZ_DG)
UN number : 1805
Description of the goods : PHOSPHORIC ACID, SOLUTION
Class : 8
Packing group : III
Hazchem Code : 2R
Environmentally hazardous : Yes

Sea transport (IMDG/IMO)
UN number : 1805
Description of the goods : PHOSPHORIC ACID SOLUTION
Class : 8
Packing group : III
Marine pollutant : No
Special precautions for user : None

Section: 15. REGULATORY INFORMATION

Product AS SOLD
HSNO Approval Number : HSR002526

The components of this product are reported in the following inventories:

United States TSCA Inventory : not determined

Canadian Domestic Substances List (DSL) : This product contains one or several components that are not on the Canadian DSL nor NDSL.

Australia. Industrial Chemical (Notification and Assessment) Act : not determined

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory : not determined
Korea. Korean Existing Chemicals Inventory (KECI):
not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS):
not determined

China Inventory of Existing Chemical Substances:
not determined

Taiwan Chemical Substance Inventory:
not determined

Section: 16. OTHER INFORMATION

Issuing date : 07.07.2017
Version : 1.1
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 process, unless specified in the text.