IDENTIFICATION:

1.1. Product identifier
3M FT-30 Qualitative Fit Test Kit, Bitter

Product Identification Numbers
70-0707-0964-0

1.2. Recommended use and restrictions on use

Recommended use
Qualitative Fit Test Kit, Bitter

For Industrial or Professional use only.

1.3. Supplier’s details
Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone: 136 136
E Mail: productinfo.au@mmm.com
Website: www.3m.com.au

1.4. Emergency telephone number
Company Emergency Hotline: EMERGENCY: 1800 097 146 (Australia only)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the SDSs for components of this product are:

07-6218-7, 07-6198-1

All components in this KIT are NOT classified as hazardous chemicals according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

TRANSPORT INFORMATION

This KIT and its components are NOT classified as Dangerous Goods.
DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The “Low VOC” reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au
Safety Data Sheet

Copyright, 2017, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document group: 07-6198-1
Issue Date: 22/05/2017
Version number: 5.00
Supersedes date: 03/02/2015

This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier
FT-31, Denatonium Benzoate Sensitivity Solution

Product Identification Numbers
AT-0105-8739-5

1.2. Recommended use and restrictions on use

Recommended use
Sensitivity Test Solution.

For Industrial or Professional use only.

1.3. Supplier’s details

Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone: 136 136
E Mail: productinfo.au@mmm.com
Website: www.3m.com.au

1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is NOT classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Not applicable.

2.2. Label elements

Signal word
Not applicable.
Symbols
Not applicable.

Pictograms
Not applicable.

2.3. Other assigned/identified product hazards
None known.

2.4. Other hazards which do not result in classification
None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>90 - 100</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>3 - 10</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>0 - 1</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
No need for first aid is anticipated.

Eye contact
No need for first aid is anticipated.

If swallowed
No need for first aid is anticipated.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Observe precautions from other sections.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial or professional use only. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

8.2. Exposure controls

8.2.1. Engineering controls
No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
None required.

Skin/hand protection
No protective gloves required.

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | Liquid. |
| Appearance/Odour | Clear, odourless solution with a bitter taste. Freezing point = -4 degrees Centigrade |
FT-31, Denatonium Benzoate Sensitivity Solution

Odour threshold  
No data available.

pH  
Approximately 6.52 Units not available or not applicable.

Melting point/Freezing point  
Not applicable.

Boiling point/Initial boiling point/Boiling range  
$\geq 100$ °C

Flash point  
No flash point

Flammability (solid, gas)  
Not applicable.

Flammable Limits(LEL)  
Not applicable.

Flammable Limits(UEL)  
Not applicable.

Vapour pressure  
2,399.8 Pa [@ 20 °C ]

Vapour density  
Not applicable.

Density  
1.034 g/ml

Relative density  
1.034  [Ref Std.:WATER=1]

Water solubility  
Complete

Solubility- non-water  
No data available.

Partition coefficient: n-octanol/water  
No data available.

Autoignition temperature  
Not applicable.

Decomposition temperature  
No data available.

Molecular weight  
Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity  
This material is considered to be non reactive under normal use conditions.

10.2 Chemical stability  
Stable.

10.3. Conditions to avoid  
None known.

10.4. Possibility of hazardous reactions  
Hazardous polymerisation will not occur.

10.5 Incompatible materials  
None known.

10.6 Hazardous decomposition products  

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>Not specified.</td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure  
Based on test data and/or information on the components, this material may produce the following health effects:
**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Skin contact**
Contact with the skin during product use is not expected to result in significant irritation.

**Eye contact**
Contact with the eyes during product use is not expected to result in significant irritation.

**Ingestion**
No known health effects.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

### Acute Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 10,000 mg/kg</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Inhalation-Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50 &gt; 10.5 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 3,550 mg/kg</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Inhalation-Dust/Mist</td>
<td></td>
<td>LC50 estimated to be 1 - 5 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 584 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
</tbody>
</table>

### Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

### Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Guinea pig</td>
<td>Not classified</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Human</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### Respiratory Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denatonium benzoate</td>
<td>Human</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
</table>
Sodium chloride

In Vitro
Some positive data exist, but the data are not sufficient for classification

Sodium chloride

In vivo
Some positive data exist, but the data are not sufficient for classification

Denatonium benzoate

In Vitro
Not mutagenic

Denatonium benzoate

In vivo
Not mutagenic

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>Rat</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Ingestion</td>
<td>Rat</td>
<td>Not carcinogenic</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

**Reproductive and/or Developmental Effects**
For the component/components, either no data are currently available or the data are not sufficient for classification.

### Target Organ(s)

**Specific Target Organ Toxicity - single exposure**
For the component/components, either no data are currently available or the data are not sufficient for classification.

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>blood</td>
<td>kidney and/or bladder</td>
<td>vascular system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>nervous system</td>
<td>eyes</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 1,700 mg/kg/day</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>liver</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 33 mg/kg/day</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Ingestion</td>
<td>endocrine system</td>
<td>heart</td>
<td>bone, teeth, nails, and/or hair</td>
<td>hematopoietic system</td>
<td>liver</td>
</tr>
</tbody>
</table>

### Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

### Exposure Levels
Refer Section 8.1 Control Parameters of this Safety Data Sheet.
Interactive Effects
Not determined.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Organism</th>
<th>Type</th>
<th>Exposure</th>
<th>Test endpoint</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Fathead minnow</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>7,650 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>736 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Algae or other aquatic plants</td>
<td>Experimental</td>
<td>96 hours</td>
<td>EC50</td>
<td>2,430 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Water flea</td>
<td>Experimental</td>
<td>21 days</td>
<td>NOEC</td>
<td>518 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>&gt;500 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Rainbow trout</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>&gt;1,000 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Crustacea</td>
<td>Experimental</td>
<td>96 hours</td>
<td>EC50</td>
<td>400 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Estimated Photolysis</td>
<td>N/A</td>
<td>Photolytic half-life</td>
<td>6.58 hours (t1/2)</td>
<td>Other methods</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Experimental Biodegradation</td>
<td>28</td>
<td>Dissolv. Organic Carbon Deplet</td>
<td>30 % weight</td>
<td>Other methods</td>
</tr>
</tbody>
</table>

12.3 : Bioaccumulative potential

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
</table>
FT-31, Denatonium Benzoate Sensitivity Solution

<table>
<thead>
<tr>
<th>Sodium chloride</th>
<th>7647-14-5</th>
<th>Data not available or insufficient for classification</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Experimental Bioconcentration</td>
<td>Log Kow</td>
<td>-0.045</td>
<td>Other methods</td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.
Dispose of waste product in a permitted industrial waste facility.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG)- Marine Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Australian Inventory Status:
The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: This product has not been assessed for poisons scheduling as the product is intended for industrial and professional use only.

SECTION 16: Other information

Revision information:
Conversion to GHS format SDS.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The ‘Low VOC’ reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au
SECTION 1: Identification

1.1. Product identifier
FT-32, Denatonium Benzoate Fit Test Solution

Product Identification Numbers
AT-0105-8740-3

1.2. Recommended use and restrictions on use

Recommended use
Fit Test Solution.

For Industrial or Professional use only.

1.3. Supplier’s details

Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone: 136 136
E Mail: productinfo.au@mmm.com
Website: www.3m.com.au

1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is NOT classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Not applicable.

2.2. Label elements

Signal word
Not applicable.
Symbols
Not applicable.

Pictograms
Not applicable.

2.3. Other assigned/identified product hazards
None known.

2.4. Other hazards which do not result in classification
None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>90 - 100</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>3 - 10</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>0 - 1</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
No need for first aid is anticipated.

Eye contact
No need for first aid is anticipated.

If swallowed
No need for first aid is anticipated.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Observe precautions from other sections.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. Do not eat, drink or smoke when using this product. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

8.2. Exposure controls

8.2.1. Engineering controls
No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
None required.

Skin/hand protection
No protective gloves required.

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid.
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>Approximately 6.52</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling point/Initial boiling point/Boiling range</td>
<td>&gt;=100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>No flash point</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammable Limits(LEL)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammable Limits(UEL)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>2,399.8 Pa [@ 20 °C ]</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Density</td>
<td>1.034 g/ml</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.034 [Ref Std: WATER=1]</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Complete</td>
</tr>
<tr>
<td>Solubility- non-water</td>
<td>No data available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available.</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>VOC less H2O &amp; exempt solvents</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

### SECTION 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non reactive under normal use conditions

10.2 Chemical stability
Stable.

10.3. Conditions to avoid
None known.

10.4. Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>Not specified.</td>
</tr>
</tbody>
</table>

### SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be
relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact
Contact with the skin during product use is not expected to result in significant irritation.

Eye contact
Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion
No known health effects.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

### Acute Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 10,000 mg/kg</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Inhalation-Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50 &gt; 10.5 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Inhalation-Dust/Mist</td>
<td></td>
<td>LC50 estimated to be 1 - 5 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 584 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
</tbody>
</table>

### Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

### Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Guinea pig</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
### FT-32, Denatonium Benzoate Fit Test Solution

<table>
<thead>
<tr>
<th>Component</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denatonium benzoate</td>
<td>Human</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

#### Respiratory Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denatonium benzoate</td>
<td>Human</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

#### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>In vivo</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

#### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>Rat</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>Ingestion</td>
<td>Rat</td>
<td>Not carcinogenic</td>
</tr>
</tbody>
</table>

#### Reproductive Toxicity

### Reproductive and/or Developmental Effects

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Target Organ(s)

##### Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 0.016 mg/l</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

For the component/components, either no data are currently available or the data are not sufficient for classification.

##### Specific Target Organ Toxicity - repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>blood</td>
<td>kidney and/or bladder</td>
<td>vascular system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>nervous system</td>
<td>eyes</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 1,700 mg/kg/day</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Ingestion</td>
<td>liver</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 33 mg/kg/day</td>
</tr>
<tr>
<td>Denatonium</td>
<td>Ingestion</td>
<td>endocrine</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 16</td>
<td>2 years</td>
</tr>
</tbody>
</table>
Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Exposure Levels
Refer Section 8.1 Control Parameters of this Safety Data Sheet.

Interactive Effects
Not determined.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Organism</th>
<th>Type</th>
<th>Exposure</th>
<th>Test endpoint</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Algae other</td>
<td>Experimental</td>
<td>96 hours</td>
<td>EC50</td>
<td>2,430 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Bluegill</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>5,840 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>LC50</td>
<td>874 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Fathead minnow</td>
<td>Experimental</td>
<td>33 days</td>
<td>NOEC</td>
<td>252 mg/l</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Water flea</td>
<td>Experimental</td>
<td>21 days</td>
<td>NOEC</td>
<td>314 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Crustacea</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>400 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Green algae</td>
<td>Experimental</td>
<td>72 hours</td>
<td>EC50</td>
<td>282 mg/l</td>
</tr>
<tr>
<td>Denatonium benzoate</td>
<td>3734-33-6</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>&gt;500 mg/l</td>
</tr>
</tbody>
</table>
FT-32, Denatonium Benzoate Fit Test Solution

<table>
<thead>
<tr>
<th></th>
<th>CAS Number</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>Data not available-</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>insufficient for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>classification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denatonium</td>
<td>3734-33-6</td>
<td>Experimental Biodegradation</td>
<td>28 days</td>
<td>BOD</td>
<td>18.17 % weight</td>
<td>OECD 301F - Manometric</td>
</tr>
<tr>
<td>benzoate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>respirometry</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

12.3 : Bioaccumulative potential

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.
Dispose of waste product in a permitted industrial waste facility.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG)- Marine Transport
UN No.: Not applicable.
Proper shipping name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

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

Australian Inventory Status:
The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: This product is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

SECTION 16: Other information

Revision information:
Complete document review.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The ‘Low VOC’ reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au