

SAFETY DATA SHEET

FT-32, DENATONIUM BENZOATE FIT TEST SOLUTION

Infosafe No.: HYGVT
ISSUED Date : 14/03/2022
ISSUED by: 3M AUSTRALIA PTY LIMITED

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

1.1. Product identifier

FT-32, DENATONIUM BENZOATE FIT TEST SOLUTION

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:

Fit Test Solution.

For Industrial or Professional use only.

1.3. Details of the supplier of the safety data sheet

Company name

3M AUSTRALIA PTY LIMITED

Address

Building A, 1 Rivett Road North Ryde
NSW 2113 AUSTRALIA

Telephone/fax number

Tel: 136 136

E-mail address

productinfo.au@mmm.com

1.4. Emergency telephone number

1800 097 146 (24H) (Australia only)

Product code

AT-0105-8740-3

Additional information

Website: www.3m.com.au

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008

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.

Not applicable.

2.2. label elements

Symbols:

Not applicable.

Pictogram (s)

Not applicable

Signal word

NOT APPLICABLE.

Precautionary statement – prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other Hazards

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**Ingredients**

Name	CAS	Proportion	Hazard Statement (s)
Water	7732-18-5	90-100 %weight	
Sodium Chloride	7647-14-5	3-10 %weight	
Denatonium Benzoate	3734-33-6	0-1 %weight	

Other information

This material is a mixture.

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

No need for first aid is anticipated.

Eye

No need for first aid is anticipated.

Ingestion

No need for first aid is anticipated.

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

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable

SECTION 5: Firefighting measures**5.1. Extinguishing media****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. Advice for firefighters

Special protective actions for fire-fighters:

No special protective actions for fire-fighters are anticipated.

Decomposition temperature

No data available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. 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.

Personal precautions

Observe precautions from other sections.

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

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

8.2. Exposure controls

Appropriate engineering controls

No engineering controls required.

Respiratory protection

None required.

Hand protection

No protective gloves required.

Eye/Face protection

None required.

SECTION 9: Physical and chemical properties

9.1. information on basic physical and chemical properties

Freezing point

Not applicable.

Colour

Colourless

Form

Liquid

Odour

Odourless

Odour threshold

No data available.

pH Value

Approximately 6.52

Vapour pressure

2,399.8 Pa [@ 20°C]

Boiling Point and boiling range

>=100°C

Melting point

Not applicable.

Solubility in water

Complete

Specific gravity (H2O=1)

1.034 [Ref Std: WATER=1]

Density

1.034 g/ml

Flash point

No flash point

Flammable limits - upper

Not applicable.

Flammable limits - lower

Not applicable.

Flammability

(solid, gas): Not applicable.

Auto-ignition temperature

Not applicable.

Decomposition temperature

No data available.

Kinematic viscosity

Not applicable.

Dynamic viscosity

Not applicable.

Evaporation rate

Not applicable.

Vapour density (Air=1)

Not applicable.

Volatile component

Not applicable.

Partition coefficient: n-octanol/water

No data available.

Molecular weight

Not applicable.

Physical state

Liquid.

Melting/freezing point

Not applicable.

9.2. Other Information

Solubility- non-water: No data available.

Volatile organic compounds (VOC): Not applicable.

VOC less H2O & exempt solvents: Not applicable.

Nanoparticles

This material does not contain nanoparticles.

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. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Substance: None known.

Condition: Not specified.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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:

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:

ATE = acute toxicity estimate

Acute toxicity - oral

Name: Overall product

Route: Ingestion

Value: No data available; calculated ATE >5,000 mg/kg

Name: Sodium chloride

Route: Ingestion

Species: Rat

Value: LD50 3,550 mg/kg

Name: Denatonium benzoate

Route: Ingestion

Species: Rat

Value: LD50 584 mg/kg

ATE = acute toxicity estimate

Acute toxicity - dermal

Name: Sodium chloride

Route: Dermal

Species: Rabbit
Value: LD50 > 10,000 mg/kg

Name: Denatonium benzoate
Route: Dermal
Species: Rat
Value: LD50 > 2,000 mg/kg

Acute toxicity - inhalation

Name: Sodium chloride
Route: Inhalation-Dust/Mist (4 hours)
Species: Rat
Value: LC50 > 10.5 mg/l

Name: Denatonium benzoate
Route: Inhalation-Dust/Mist
Value: LC50 estimated to be 1 - 5 mg/l

Skin corrosion/irritation

Name: Sodium chloride
Species: Rabbit
Value: No significant irritation

Name: Denatonium benzoate
Species: Rabbit
Value: Mild irritant

Serious eye damage/irritation

Name: Overall product
Species: Rabbit
Value: No significant irritation

Name: Sodium chloride
Species: Rabbit
Value: Mild irritant

Name: Denatonium benzoate
Species: Rabbit
Value: Corrosive

Skin sensitisation

Name: Overall product
Species: Guinea pig
Value: Not classified

Name: Denatonium benzoate
Species: Human
Value: Not classified

Carcinogenicity

Name: Sodium chloride
Route: Ingestion
Species: Rat
Value: Not carcinogenic

Name: Denatonium benzoate
Route: Ingestion
Species: Rat
Value: Not carcinogenic

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.

Aspiration hazard

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

STOT-single exposure

Name: Overall product

Route: Inhalation

Target Organ(s): Respiratory irritation

Value: Some positive data exist, but the data are not sufficient for classification

Species: Rat

Test result: NOAEL 0.016 mg/l

Exposure Duration: 4 hours

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

STOT-repeated exposure

Name: Sodium chloride

Route: Ingestion

Target Organ(s): blood | kidney and/or bladder | vascular system

Value: Some positive data exist, but the data are not sufficient for classification

Species: Rat

Test result: NOAEL 2,240 mg/kg/day

Exposure Duration: 9 months

Name: Sodium chloride

Route: Ingestion

Target Organ(s): Nervous system | eyes

Value: Some positive data exist, but the data are not sufficient for classification

Species: Rat

Test result: NOAEL 1,700 mg/kg/day

Exposure Duration: 90 days

Name: Sodium chloride

Route: Ingestion

Target Organ(s): Liver | respiratory system

Value: Not classified

Species: Rat

Test result: NOAEL 33 mg/kg/day

Exposure Duration: 90 days

Name: Denatonium benzoate

Route: Ingestion

Target Organ(s): Endocrine system | heart | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system

Value: Not classified

Species: Rat

Test result: NOAEL 16 mg/kg/day

Exposure Duration: 2 years

Germ cell mutagenicity

Name: Sodium chloride

Route: In Vitro

Value: Some positive data exist, but the data are not sufficient for classification

Name: Sodium chloride

Route: In vivo

Value: Some positive data exist, but the data are not sufficient for classification

Name: Denatonium benzoate

Route: In Vitro

Value: Not mutagenic

Name: Denatonium benzoate

Route: In vivo
Value: Not mutagenic

Respiratory sensitisation

Name: Denatonium benzoate
Species: Human
Value: Not classified

Inhalation

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

Ingestion

No known health effects.

Skin

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

Eye

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

Name: Sodium chloride
Species: Rabbit
Value: No significant irritation

Name: Denatonium benzoate
Species: Rabbit
Value: Mild irritant

Name: Denatonium benzoate
Species: Rabbit
Value: Corrosive

Eye irritation

Name: Overall product
Species: Rabbit
Value: No significant irritation

Name: Sodium chloride
Species: Rabbit
Value: Mild irritant

Name: Denatonium benzoate
Species: Rabbit
Value: Corrosive

Other information

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

Interactive Effects:
Not determined.

SECTION 12: Ecological information

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.

Material: Sodium Chloride
CAS Number: 7647-14-5
Organism: Activated sludge
Type: Experimental
Test endpoint: NOEC
Test result: 8,000 mg/l

Material: Sodium Chloride
CAS Number: 7647-14-5
Organism: Algae other
Type: Experimental
Exposure: 96 hours
Test endpoint: EC50
Test result: 2,430 mg/l

Material: Sodium Chloride
CAS Number: 7647-14-5
Organism: Bluegill
Type: Experimental
Exposure: 96 hours
Test endpoint: LC50
Test result: 5,840 mg/l

Material: Sodium Chloride
CAS Number: 7647-14-5
Organism: Water flea
Type: Experimental
Exposure: 48 hours
Test endpoint: LC50
Test result: 874 mg/l

Material: Sodium chloride
CAS Number: 7647-14-5
Organism: Fathead minnow
Type: Experimental
Exposure: 33 days
Test endpoint: NOEC
Test result: 252 mg/l

Material: Sodium chloride
CAS Number: 7647-14-5
Organism: Water flea
Type: Experimental
Exposure: 21 days
Test endpoint: NOEC
Test result: 314 mg/l

Material: Denatonium Benzoate
CAS Number: 3734-33-6
Organism: Crustacea
Type: Experimental
Exposure: 48 hours
Test endpoint: LC50
Test result: 400 mg/l

Material: Denatonium Benzoate
CAS Number: 3734-33-6
Organism: Green algae
Type: Experimental
Exposure: 72 hours

Test endpoint: EC50
Test result: 281.556 mg/l

Material: Denatonium Benzoate
CAS Number: 3734-33-6
Organism: Water flea
Type: Experimental
Exposure: 48 hours
Test endpoint: EC50
Test result: >500 mg/l

Material: Denatonium Benzoate
CAS Number: 3734-33-6
Organism: Zebra Fish
Type: Experimental
Exposure: 96 hours
Test endpoint: LC50
Test result: >100 mg/l

12.2. Persistence and degradability

Material: Sodium chloride
CAS Number: 7647-14-5
Test type: Data not available-insufficient
Duration: N/A
Study Type: N/A
Test result: N/A
Protocol: N/A

Material: Denatonium benzoate
CAS Number: 3734-33-6
Test type: Experimental Hydrolysis
Study Type: Hydrolytic half-life (pH 7)
Test result: >1 years (t 1/2)
Protocol: EPA N 161-1 Hydrolysis

Material: Denatonium benzoate
CAS Number: 3734-33-6
Test type: Experimental Biodegradation
Duration: 28 days
Study Type: BOD
Test result: 18.17 % weight
Protocol: OECD 301F - Manometric respirometry

Material: Denatonium benzoate
CAS Number: 3734-33-6
Test type: Experimental Aquatic Inherent Biodegrad.
Duration: 28 days
Study Type: Percent degraded
Test result: 36 %removal of DOC
Protocol: OECD 302B Zahn-Wellens/EVPA

12.3. Bioaccumulative potential

Material: Sodium chloride
CAS Number: 7647-14-5
Test type: Data not available or insufficient for classification
Duration: N/A
Study Type: N/A
Test result: N/A
Protocol: N/A

Material: Denatonium benzoate

CAS Number: 3734-33-6
Test type: Experimental Bioconcentration
Study Type: Log Kow
Test result: 2.2
Protocol: Other methods

12.4. Mobility in soil

Mobility in soil:

Please contact manufacturer for more details

12.6. Other adverse effects

No information available.

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility.

Waste disposal

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

U.N. Number

None Allocated

ADG UN class

None Allocated

Packing Group

None Allocated

Proper Shipping Name

None Allocated

IMDG UN no

NCAD

IMDG proper shipping name

Not dangerous for conveyance under IMO/IMDG code

14.5. Environmental hazards

UN number (air transport, IATA)

NCAD

IATA proper shipping name

Not dangerous for conveyance under IATA code

Other 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

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.

Australia (AICS)

Australian Inventory Status:

All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC).

Conditions may apply prior to introduction for direct importers of this product, Please contact 3M Australia on 136 136 for further details.

SECTION 16: Other information

Revisions highlighted

Revision information:

Complete document review.

Other information

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Revision information:

Complete document review.

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

This SDS has been transcribed into Infosate EC format from an original, issued by the manufacturer on the date shown.

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User codes

User Title Label	User Codes
Wis Numbers	03273579

Poisons schedule

N/A

END OF SDS

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