

MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
Version 6.0 Revision Date 06.12.2017

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : Bitrex Test Solution

Product Number : 050401

Company name : Moldex-Metric AG & Co KG

CAS-No. : 3734-33-6

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

Identified uses : Fit Test Solution

1.3 Details of the supplier of the safety data sheet

Company : Moldex-Metric AG & Co. KG
Tübingerstr.50
72141 Walddorfhäslach
Germany

Telephone : +49 7127-8101-02

Fax : +49 7127-8101-48

E-mail address : info@moldex-europe.com

1.4 Emergency telephone number

Emergency Phone # : +49 7127-8101-02

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to EU Regulation 1272/2008

2.2 Label elements

Dangerous substances according to EU Regulation 1272/2008

Symbols -none

Contains - non hazardous ingredients

Risk phrases - none

Safety phrases - P271 use only in well ventilated areas

2.3 Other hazards - none known

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : N,N-Diethyl-N-[(2,6-dimethylphenylcarbamoyl)methyl]benzylammonium benzoate / Denatonium benzoate

Formula : C₂₈H₃₄N₂O₃

Molecular Weight : 446,58g/mol

Ingredients	CAS-No.	EC-No.	Concentration	Classification
-------------	---------	--------	---------------	----------------

Water	---	---	94,831%	
-------	-----	-----	---------	--

Sodium Chloride	7647-14-5	231-598-3	5,0%	
-----------------	-----------	-----------	------	--

Benzoate	3734-33-6	223-095-2	0,169%	H332,H302,H318 (self classified)
----------	-----------	-----------	--------	----------------------------------

Please see Section 16 for full text of any H statements referred in this section

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

No need for first aid is anticipated.

Skin contact

Wash off with soap and plenty of water. If signs/ symptoms develop, get medical attention.

Eye contact

Rinse thoroughly with plenty of water. If signs/ symptoms persists, get medical attention

If swallowed

No need for first aid is anticipated.

Ingestion

Profuse bad taste, no health effects are expected.

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 needed

Not applicable

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Material will not burn

5.2 Special hazards arising from the substance or mixture

No fire hazard

5.3 Advice for firefighters

No unusual fire hazards are anticipated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid breathing dust.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up

Clean up residue with detergent and water. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For industrial or professional use only.

7.2 Conditions for safe storage, including any incompatibilities

No special storage required.

7.3 Specific end uses

The use by date of the manufactured solution is 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

No occupational exposure limit values exist for the components listed in Section 3.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

None required

Skin protection

None required

Respiratory Protection

None required

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

• Appearance	liquid
• Odour	clear odourless solution with bitter taste
• Odour threshold	no data available
• pH	no data available
• Melting point/ freezing point	no data available
• Initial boiling point and boiling range	no data available
• Flash point	no data available
• Evaporation rate	no data available
• Flammability	not applicable
• Explosive limits	not applicable
• Vapour pressure	not applicable
• Vapour density	not applicable
• Relative density	1,034
• Water solubility	complete
• Partition coefficient: n-octanol/water	no data available
• Autoignition temperature	not applicable
• Decomposition temperature	not applicable
• Viscosity	no data available
• Explosive properties	not applicable
• Oxidizing	not applicable

9.2 Other safety information

None known

10. STABILITY AND REACTIVITY

10.1 Reactivity

Not applicable

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

None known

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products
Other decomposition products - not applicable

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Denatonium benzoate: LD50 Oral - rat - 584 mg/kg
LD50 Dermal -rat- >2000mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Not mutagenic

Carcinogenicity

Not carcinogenic

Reproductive toxicity

No test data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

Not an aspiration hazard

Signs and Symptoms of Exposure

Potential health effects:

Inhalation	no health effects are expected. Persons with Asthma or breathing difficulties should seek further medical advice
Ingestion	no health effects are expected
Skin	contact to the skin during product use is not expected to result in significant irritation
Eyes	contact to the eyes during product use is not expected to result in significant irritation

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not acutely toxic to aquatic life by GHS criteria

12.2 Persistence and degradability

No test data available

12.3 Bioaccumulative potential

No test data available

12.4 Mobility in soil

No test data available

12.5 Results of PBT and vPvB assessment

No test data available

12.6 Other adverse effects

No test data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

not applicable

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

not applicable

15.2 Chemical Safety Assessment

not applicable

16. OTHER INFORMATION

List of relevant H statements:

H302 Harmful if swallowed

H318 Causes serious eye damage

H332 Harmful if inhaled