

# 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 : C<sub>28</sub>H<sub>34</sub>N<sub>2</sub>O<sub>3</sub>

Molecular Weight : 446,58g/mol

Ingredients	CAS-No.	EC-No.	Concentration	Classification
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Water	---	---	94,831%	
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Sodium Chloride	7647-14-5	231-598-3	5,0%	
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Benzoate	3734-33-6	223-095-2	0,169%	H332,H302,H318 (self classified)
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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:

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

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Product name : Bitrex Sensitivity Solution

Product Number : 050301  
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 Sensitivity Solution

### 1.3 Details of the supplier of the safety data sheet

Company : Moldex-Metric AG & Co. KG  
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**Risk phrases** - none

**Safety phrases** - P271 use only in well ventilated areas

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Molecular Weight : 446,58g/mol

Ingredients	CAS-No.	EC-No.	Concentration	Classification
Water	---	---	94,9865%	
Sodium Chloride	7647-14-5	231-598-3	5,0%	
Benzoate	3734-33-6	223-095-2	0,0135%	H332,H302,H318 (self classified)

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## **4. FIRST AID MEASURES**

### **4.1 Description of first aid measures**

#### **Inhalation**

No need for first aid is anticipated.

#### **Skin contact**

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#### **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**

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### **7.1 Precautions for safe handling**

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

No special storage required

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#### **Occupational exposure limits**

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### Appropriate engineering controls

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None required

#### Skin protection

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#### Respiratory Protection

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• 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

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### 10.4 Conditions to avoid

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**Reproductive toxicity**

No test data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

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**Eyes** contact to the eyes during product use is not expected to result in significant irritation

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