



SAFETY DATA SHEET

SECTION I - IDENTIFICATION

PRODUCT NAME: Denatonium Benzoate
CAS #: 3734-33-6
Manufacturer's Name: CHEM-IS-TRY, INC.
Address: 160-4 LIBERTY ST.
METUCHEN, NJ 08840
Telephone #: (732) 372- 7311 Secondary Telephone No: CHEMTREC
FAX #: (732) 372- 7312 (800) 424-9300
24 Hours a Day

Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, synthesis of substances

SECTION II - HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Chronic aquatic toxicity (Category 4), H413

For the full text of the H-Statements mentioned in this Section, see Section XVI.

GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

H413

May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)

P264

Wash skin thoroughly after handling

P270

Do not eat, drink or smoke when using this product

P273

Avoid release to the environment

P301 + P312 + P330

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Rinse mouth.

P501

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

Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS**Substances**

Synonyms: N,N-Diethyl-N-[(2,6-dimethylphenylcarbamoyl)methyl]benzylammonium benzoate
Benzyldiethyl(2,6-xylylcarbamoylmethyl)ammonium benzoate

Formula: C₂₈H₃₄N₂O₃

Molecular Weight: 446.58 g/mol

CAS-No.: 3734-33-6

EC-No.: 223-095-2

Hazardous components

Component	Classification	Concentration
Denatonium benzoate	Acute Tox. 4; Aquatic Chronic 4; H302, H413	≤100%

SECTION IV - FIRST AID MEASURES**Description of first aid measures**

If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact, wash off with soap and plenty of water. Consult a physician.

In case of eye contact, flush eyes with water as a precaution. Consult a physician.

If swallowed, never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed.

The most important known symptoms and effects are described in the labelling (see section II) and/or in section XI

Indication of any immediate medical attention and special treatment needed

No data available

SECTION V - FIREFIGHTING MEASURES**Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION VII - HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): XIII: Non-Combustible Solids.

Specific end use(s)

Apart from the uses mentioned in section I, no other specific uses are stipulated.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

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

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance:	Form: solid Color: white
b) Odor:	No data available
c) Odor Threshold:	No data available
d) pH:	6.5 - 7.5 at 30 g/l at 20 °C (68 °F)
e) Melting point/freezing point:	Melting point/range: 164-168°C (327-334 °F) - lit
f) Initial boiling point and boiling range:	No data available
g) Flash point:	100 °C (212° F)
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability or explosive limits:	No data available
k) Vapor pressure:	No data available
l) Vapor density:	No data available
m) Relative density:	No data available
n) Water solubility:	42.55 g/l at 25 °C (77 °F) - completely soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

Other safety information

No data available

SECTION X - STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Avoid moisture

Incompatible materials

No data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides, Nitrogen oxides

Other decomposition products - No data available

In the event of fire: see section V

SECTION XI - TOXICOLOGICAL INFORMATION**Information on toxicological effects****Acute toxicity****Skin corrosion/irritation:**

No data available

Serious eye damage/eye irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: BO6650000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION XII - ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to algae static test ErC50 - Chlorella vulgaris (Fresh water algae) - 281.56 mg/l - 72 h
(OECD Test Guideline 201)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d
Result: 18.17 % - Not readily biodegradable.
(OECD Test Guideline 301F)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available

SECTION XIII - DISPOSAL CONSIDERATIONS**Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

SECTION XIV - TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION XV - REGULATORY INFORMATION**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute health hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION XVI - OTHER INFORMATION

See full text of H-Statements under sections II and III.

Acute Tox.	Acute toxicity
Aquatic Chronic H302	Chronic aquatic toxicity Harmful if swallowed.
H413	May cause long lasting harmful effects to aquatic life.

HMIS Rating

Health hazard:	1
Chronic Health Hazard:	
Flammability:	1
Physical Hazard	0

NFPA Rating

Health hazard:	1
Fire Hazard:	1
Reactivity Hazard:	0

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