



SAFETY DATA SHEET

Preparation Date 28-Feb-2011

Revision Date 21-Mar-2014

Revision Number 3

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

Product Identifier

Product Name DENATONIUM BENZOATE

Other means of identification

Product Code 3018500
CAS Number 3734-33-6
Formula C₂₈H₃₄N₂O₃
Synonyms Benzenemethanaminium,
N-[2-[(2,6-Dimethylphenyl)Amino]-2-Oxoethyl]-N,N-Diethyl-, Benzoate (1:1)

Recommended use of the chemical and restrictions on use

Recommended Use Food, Beverage & Cosmetics
Uses advised against Avoid prolonged contact with eyes, skin, and clothing.

Details of the supplier of the safety data sheet

Supplier Address ACETO CORPORATION
4 Tri Harbor Court
Port Washington, NY 11050-4661
Phone: (516) 627-6000
Fax: (516) 627-6093
Email: aceto@aceto.com

Emergency Telephone Number(s)

ChemTrec: 1-800-424-9300 Outside of the United States: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Oral	Category 4
Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Signal Word**Warning****Hazard statements**

Harmful if swallowed
 Causes skin irritation
 Causes serious eye irritation
 May cause respiratory irritation. May cause drowsiness or dizziness

**Appearance**

White Powder

Physical State

Solid

Odor

Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known

Other Information

100 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Benzenemethanaminium, N-[2-[(2,6-Dimethylphenyl)Amino]-2-Oxoethyl]-N,N-Diethyl-, Benzoate (1:1)

Formula C28H34N2O3

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Benzenemethanaminium, N-[2-[(2,6-Dimethylphenyl)Amino]-2-Oxoethyl]-N,N-Diethyl-, Benzoate (1:1)	3734-33-6	60 - 100	True

4. FIRST AID MEASURES

First Aid Measures

General Advice Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Consult a physician.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician.

Ingestion Do not induce vomiting without medical advice. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Most important symptoms and effects, both acute and delayed

Main Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry powder. Foam.

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products Thermal decomposition or combustion may produce hazardous gases and/or materials.

Explosion Data

Sensitivity to mechanical impact Not available.

Sensitivity to static discharge Not available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Precautions Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for Cleaning up Evacuate personnel to safe areas. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation. Do not breathe vapours/dust. Avoid contact with skin, eyes and clothing. Avoid repeated exposure.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Protect from moisture.

Incompatible Materials Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Benzenemethanaminium, N-[2-[(2,6-Dimethylphenyl)Amino]-2-Oxoethyl]-N,N-Diethyl-, Benzoate (1:1) 3734-33-6	-	-	-

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face Protection Tightly fitting safety goggles.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White Powder
Physical State	Solid
Odor	Odorless
Odor Threshold	Not available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7.5	
Melting/freezing point	163 - 170 °C	Literary Reference
Boiling Point/Range	No information available	
Flash Point	No data available	No information available
Evaporation Rate	Not available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	Not available	
Vapor Pressure	No information available	
Vapor Density	Not available	
Specific Gravity	No information available	
Water Solubility	45 g/L @ 20°C	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	Not available	
Autoignition temp (°C)	No data available	Estimated
Decomposition temperature	No data available	
Viscosity, kinematic	No information available	
Viscosity, dynamic	Not available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Other Information

Softening Point	No information available
Molecular Weight	446.59
VOC Content	No information available
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applicable.
Chemical Stability	Stable under recommended storage conditions
Conditions to Avoid	Heat, flames and sparks. Avoid moisture. Avoid dust formation.
Incompatible Materials	Oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). Nitrogen Oxides (NO _x).
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Dermal: > 2,000 mg/kg

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzenemethanaminium, N-[2-[(2,6-Dimethylphenyl)Amino]-2- Oxoethyl]-N,N-Diethyl-, Benzoate (1:1) 3734-33-6	= 584 mg/kg (Rat)	-	-

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 584 mg/kg

Information on likely routes of exposure

Eyes	Irritating to eyes. Avoid contact with eyes.
Skin	May be harmful by skin contact. Irritating to skin. Avoid contact with skin.
Inhalation	May be harmful by inhalation. Irritating to mucous membranes. Irritating to respiratory system. Avoid breathing dust.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Do not ingest.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	There are no known carcinogenic chemicals in this product.
Eye damage/irritation	No information available.
Skin Corrosion/Irritation	No information available.
Sensitization	Repeated contact may cause allergic reactions in very susceptible persons.
Reproductive Effects	No information available.
Mutagenic Effects	No information available.
Developmental Effects	No information available.
STOT - single exposure	No information available.
STOT - Repeated Exposure	No information available.
Chronic Toxicity	Avoid repeated exposure.
Target Organ Effects	Eyes, Skin, Respiratory system.

Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

Acute Toxicity 100 % of the mixture consists of ingredient(s) of unknown toxicity
mg/L

LD50 Dermal: > 2,000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

There is no known ecological information for this product.

100 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence / Degradability No information available.

Bioaccumulation / Accumulation No information available.

Mobility in Soil No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Contact waste disposal services. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of in accordance with local regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

U.S.A. (TSCA)	Complies
Canada (DSL)	Complies
EU (EINECS)	Complies
EU (ELINCS)	Does not Comply
Japan (ENCS)	Complies
China	Complies
Korea (KECL)	Complies
Philippines (PICCS)	Complies
Australia (AICS)	Complies

Chemical Name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)	
Benzenemethanaminium, N-[2-[(2,6-Dimethylphenyl)Amino]-2-Oxoethyl]-N,N-Diethyl-, Benzoate (1:1)	Present	Present	Present	-	
Chemical Name	Japan (ENCS)	China	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
Benzenemethanaminium, N-[2-[(2,6-Dimethylphenyl)Amino]-2-Oxoethyl]-N,N-Diethyl-, Benzoate (1:1)	Present (3)-2724	Present	Present	Present	Present

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

*State Regulations***California Proposition 65**

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

This product does not contain any State Right-to-Know chemicals.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

*Canada***WHMIS Statement**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION**NFPA****Health** 2**Flammability** 0**Instability** 0**Physical Hazard** 0**Preparation Date**

28-Feb-2011

Revision Date

21-Mar-2014

Revision Summary

Not available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS