



Denatonium Benzoate

Safety Data Sheet

Section 1 – Identification of the Substance and the Company/Undertaking	
Product Identifier:	Denatonium Benzoate
Supplier:	Aversion Technologies, Inc. 1125 West Street, Suite 328 Annapolis, Maryland 21401 USA +1-202-657-6300
Emergency Telephone Number:	+1-202-365-9001
Product Form:	Powder
Intended Use:	Alcohol denaturant, bitterant
Restriction on Use:	None
Section 2 – Hazard(s) Identification	
2.1 Hazard Classification:	Acute toxicity (oral & inhalation), category 5 Skin irritation, category 3 Eye irritation, category 2B
2.2 Signal Word:	Warning
	
2.3 Hazard Statement(s):	May be harmful if swallowed May be harmful if inhaled Causes mild skin irritation Causes mild eye irritation
2.4 Precautionary Statement(s):	No significant health risks are expected from exposures under normal conditions of use.
Section 3 – Composition/Information on Ingredients	
3.1 Common name:	Denatonium Benzoate
3.2 Synonyms:	<i>N,N</i> -Diethyl- <i>N</i> -[(2,6-dimethylphenylcarbonyl)methyl]benzylammonium benzoate Benzyl diethyl(2,6-xylylcarbonylmethyl)ammonium benzoate THS 839
3.3 CAS#:	3734-33-6
3.4 Composition:	100% Ammonium, Benzyl diethyl ((2,6,Xylylcarbonyl) methyl)-Benzoate
3.5 Chemical Formula:	$C_{21}H_{29}N_2O \cdot C_7H_5O_2$
Section 4 – First Aid Measures	
Inhalation:	Remove from exposure immediately and introduce to fresh air.
Ingestion:	Rinse mouth thoroughly. Drink plenty of water.
Eye Contact:	Flush immediately with plenty of gently flowing clean water/saline, occasionally lifting eyelids until no evidence of chemical remains. Obtain medical attention immediately.
Skin Contact:	Remove contaminated clothing. Wash exposed areas with mild soap and water.
Section 5 – Fire Fighting Measures	
Suitable extinguishing media:	Dry chemical, CO ₂ , water spray, regular foam.
Unsuitable extinguishing media:	DO NOT USE full water jet.
Special Fire Fighting Procedures:	This product does not pose a particular hazard.
Specific hazards arising from chemical:	None known
Tank/trailer/train truck fires:	Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in flames.
Section 6 – Accidental Release Measures	
Personal precautions:	Wear disposable gloves and overalls.
Environmental precautions:	No special precautions are necessary.
Waste disposal:	Powder should be dealt with in such a way as to prevent particles being spread in the air causing an unpleasant taste.
Section 7 – Handling and Storage	
Precautions:	While handling manually avoid contact with skin, eyes and clothing; minimize dust.
Storage:	Store in cool, dry, ventilated storage and closed containers. Keep separate from food, feed stuffs, fertilizers, and other sensitive materials.
Section 8 – Exposure Controls/Personal Protection	
Occupational Exposure Limits:	None Established

Appropriate engineering controls:	Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations below their respective threshold limit value. Check legal suitability of exposure level.
Respiratory Protection:	Respiratory protection: Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment.
Protective Gloves:	Wear appropriate chemical-resistant gloves
Eye Protection:	An eye wash unit and safety shower station should be available nearby work place.
Skin and Body Protection:	Wear appropriate protective chemical-resistant clothing.
Section 9 – Physical and Chemical Properties	
Physical State:	Crystalline Powder
Color:	White
Odor:	Odorless, bitter taste
Melting Point:	Not Applicable
Specific Gravity:	0.5-0.8
Processing Temperature:	340°C
Chemical Family:	Quaternary ammonium compounds
Substances:	Ammonium, benzoate
Section 10 – Stability and Reactivity	
Stability:	Product is stable and inert
Incompatibility (Materials to Avoid):	None known
Conditions to Avoid:	Certain strong oxidizing agents such as Sodium Hypochlorite and Hydrogen Peroxide
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products:	Nitrogen oxides are formed when denatonium benzoate decomposes on heating or when involved in fire
Section 11 – Toxicology Information	
Acute oral toxicity LD50 rat:	> 500 mg/kg (Rat)
Dermal LD50 rabbit:	> 2000 mg/kg
Acute inhalation toxicity:	> 1500 mg/kg (May cause asthmatic reaction in persons allergic to Lignocaine or similar)
Skin irritation:	Low skin sensitivity potential and therefore may be mildly irritating to skin
Eye irritation (rabbit):	No data available
Sensitization (guinea pig):	No data available
Genotoxicity and Reproductive Effects:	No data available
Ames test:	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
Carcinogen:	Not listed
Further data:	Handle using good occupational and environmental health practices.
Section 12 – Ecological Information	
Biodegradation	Difficult to biodegrade
Recycle	Can be recycled with appropriate technologies.
Section 13 – Disposal Considerations	
Disposal Methods:	Incinerate in authorized facility or dispose of in accordance with local regulations
Section 14 – Transport Information	
General:	Not hazardous for transport
TSCA 8(b) inventory:	Yes
UN No:	N/A
EINECS Number :	2230952
CAS No :	3734-33-6
Tariff No:	2924.2995
IATA/ICAO:	This material is not classified as dangerous
Section 15 – Regulatory Information	
Label for Supply :	WARNING 
Risk Phrases:	R20 Harmful by inhalation R22 Harmful if swallowed
Safety Phrases:	S2 Keep out of reach of children S13 Keep away from food and drink S36 Wear suitable protective clothing S37 Wear suitable gloves S46 If swallowed seek medical advice immediately
Section 16 – Other Information	
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