



## Denatonium Saccharide Safety Data Sheet

Section 1 – Identification of the Substance and the Company/Undertaking	
<b>Product Identifier:</b>	<b>Denatonium Benzoate</b>
<b>Supplier:</b>	Aversion Technologies, Inc. 1125 West Street, Suite 328 Annapolis, Maryland 21401 USA +1-202-657-6300
<b>Emergency Telephone Number:</b>	<b>+1-202-365-9001</b>
<b>Product Form:</b>	Powder
<b>Intended Use:</b>	Alcohol denaturant, bitterant
<b>Restriction on Use:</b>	None
Section 2 – Hazard(s) Identification	
<b>2.1 Hazard Classification:</b>	Specific target organ toxicity, SE, category 3 Skin corrosion / irritation, category 3 Eye damage / eye irritation, category 2 Acute toxicity (oral), category 4
<b>2.2 Signal Word:</b>	WARNING 
<b>2.3 Hazard Statement(s):</b>	May cause slight irritation to the respiratory system if dust or smoke is inhaled. May cause mild irritation/redness. May cause irritation/redness. Likely to cause irritation, nausea, vomiting.
Section 3 – Composition/Information on Ingredients	
<b>3.1 Chemical Name:</b>	benzyl-diethyl-[(2,6-xylyl-carbamoyl)-methyl]-ammonium saccharide
<b>3.2 Common Name:</b>	Denatonium Saccharide
<b>3.3 CAS #:</b>	90823-38-4
<b>3.4 Composition:</b>	100% Denatonium Saccharide
Section 4 – First Aid Measures	
<b>Inhalation:</b>	Remove from exposure immediately and introduce to fresh air.
<b>Ingestion:</b>	Rinse mouth thoroughly. Drink plenty of water.
<b>Eye Contact:</b>	Flush immediately with plenty of gently flowing clean water/saline, occasionally lifting eyelids until no evidence of chemical remains. Obtain medical attention immediately.
<b>Skin Contact:</b>	Remove contaminated clothing. Wash exposed areas with mild soap and water.
Section 5 – Fire Fighting Measures	
<b>Suitable extinguishing media:</b>	Dry chemical, CO <sub>2</sub> , water spray, regular foam.
<b>Unsuitable extinguishing media:</b>	DO NOT USE full water jet.
<b>Special Fire Fighting Procedures:</b>	This product does not pose a particular hazard.
<b>Specific hazards arising from chemical:</b>	Fire creates Nitrogen Oxides
<b>Tank/trailer/train truck fires:</b>	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	
<b>Personal precautions, protective equipment and emergency procedures:</b>	Wear disposable gloves and overalls.
<b>Environmental precautions and protective procedures:</b>	No special precautions are necessary.
<b>Waste disposal:</b>	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	
<b>Precautions:</b>	While handling manually avoid contact with skin, eyes and clothing; minimize dust.
<b>Storage:</b>	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	
<b>Occupational Exposure Limits:</b>	ACGIH: Total dust TWA = 15 mg/m <sup>3</sup> (8-hr day), TWA = 5 mg/m <sup>3</sup> (8-hr day, respirable fraction) OSHA: Total dust TWA = 10 mg/m <sup>3</sup> (8-hr day, inhalable fraction), TWA = 3 mg/m <sup>3</sup> (8-hr day, respirable fraction) NIOSH: Not available Biological exposure index: Not available EU Regulation: Not available
<b>Appropriate engineering controls:</b>	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.
<b>Respiratory Protection:</b>	Respiratory protection: Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment.

<b>Protective Gloves:</b>	Wear appropriate chemical-resistant gloves
<b>Eye Protection:</b>	An eye wash unit and safety shower station should be available nearby work place.
<b>Skin and Body Protection:</b>	Wear appropriate protective chemical-resistant clothing.
<b>Section 9 – Physical and Chemical Properties</b>	
<b>Physical State:</b>	Crystalline powder
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>Melting Point:</b>	175-182°C
<b>Specific Gravity:</b>	0.5-0.8
<b>Processing Temperature:</b>	340°C
<b>Chemical Family:</b>	Quaternary ammonium compounds
<b>Substances:</b>	Ammonium, benzoate
<b>Section 10 – Stability and Reactivity</b>	
<b>Stability:</b>	Product is stable and inert
<b>Incompatibility (Materials to Avoid):</b>	None known
<b>Conditions to Avoid:</b>	Certain strong oxidizing agents such as Sodium Hypochlorite and Hydrogen Peroxide
<b>Possibility of hazardous reactions:</b>	No dangerous reaction known under conditions of normal use.
<b>Hazardous decomposition products:</b>	Nitrogen oxides are formed when denatonium benzoate decomposes on heating or when involved in fire
<b>Section 11 – Toxicology Information</b>	
<b>Acute oral toxicity LD50 rat:</b>	> 500 mg/kg (Rat)
<b>Dermal LD50 rabbit:</b>	> 2000 mg/kg
<b>Acute inhalation toxicity:</b>	> 1500 mg/kg (May cause asthmatic reaction in persons allergic to Lignocaine or similar)
<b>Skin irritation:</b>	Low skin sensitivity potential and therefore may be mildly irritating to skin
<b>Eye irritation (rabbit):</b>	No data available
<b>Sensitization (guinea pig):</b>	No data available
<b>Genotoxicity and Reproductive Effects:</b>	No data available
<b>Ames test:</b>	No data available
<b>Specific target organ toxicity - single exposure:</b>	No data available
<b>Specific target organ toxicity - repeated exposure:</b>	No data available
<b>Aspiration hazard:</b>	No data available
<b>Additional information:</b>	No data available
<b>Further data:</b>	Handle using good occupational and environmental health practices.
<b>Section 12 – Ecological Information</b>	
<b>Biodegradation</b>	Difficult to biodegrade
<b>Recycle</b>	Can be recycled with appropriate technologies.
<b>Section 13 – Disposal Considerations</b>	
<b>Disposal Methods:</b>	Incinerate in authorized facility or dispose of in accordance with local regulations
<b>Section 14 – Transport Information</b>	
<b>General:</b>	Not hazardous for transport
<b>TSCA 8(b) inventory:</b>	Yes
<b>UN No:</b>	N/A
<b>EINECS Number :</b>	2230952
<b>CAS No :</b>	90823-38-4
<b>Tariff No:</b>	2924.2995
<b>IATA/ICAO:</b>	This material is not classified as dangerous
<b>Section 15 – Regulatory Information</b>	
<b>Label for Supply :</b>	
<b>Risk Phrases:</b>	Xn R20/21/22 Harmful by inhalation, in contact with skin and if swallowed R36/37/38:Irritating to eyes, respiratory system and skin
<b>Safety Phrases:</b>	S26:In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S36: Wear suitable protective clothing S37/39:Wear suitable gloves and eye/face protection
<b>Section 16 – Other Information</b>	
Revised: 8/25/2016	
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