



**AVERSION TECHNOLOGIES, INC.**  
Protecting People, Plants and Animals

# Denatonium Saccharide

## Material Safety Data Sheet

Date Prepared: February 7, 2006

Date Revised: N/A

### 1. Identification of the Substance and the Company

<b>Substance:</b>	<b>Denatonium Saccharide</b>	
<b>CAS#:</b>	90823-38-4	
<b>Supplier:</b>	Aversion Technologies, Inc. 12220 Maycheck Lane Bowie, Maryland 20715 USA	<b>CHEMTREC</b> <b>24hr Emergency:</b> 1-800-424-9300
<b>Telephone:</b>	+1-202-657-6300	<b>International:</b> 1-703-527-3887
<b>Emergency No:</b>	+1-202-365-9001	
<b>Web Address:</b>	www.aversiontech.com	

### 2. Composition

<b>Substance:</b>	Ammonium, Benzyl diethyl ((2,6,Xylylcarbamoyl) methyl)-Saccharide (Denatonium Saccharide)	
<b>% Content:</b>	>99.5%	
<b>CAS No:</b>	90823-38-4	MW: 507.626
<b>Classification:</b>	Xi Irritant	
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>33</sub> N <sub>3</sub> O <sub>4</sub> S	

### 3. Hazard Identification

Harmful if ingested in large amount

### 4. First Aid Measures

<b>General:</b>	Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.
<b>Inhalation:</b>	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Provide rest, warmth and fresh air. Rinse mouth thoroughly. Drink plenty of water.

	Get medical attention if any discomfort continues.
<b>Eye:</b>	Flush immediately with plenty of gently flowing clean water/saline, occasionally lifting eye lids until no evidence of chemical remains. Obtain medical attention immediately.
<b>Skin:</b>	Remove contaminated clothing. Wash affected areas with plenty of soap and water preferably under a shower, at least 15 - 20 minutes until no chemical remains. Obtain medical attention if skin is irritated or any symptoms develop.

<b>5. Fire Fighting Measures</b>	
<b>EXTINGUISHING MEDIA:</b>	Use foam, water spray, fog or mist. Carbon dioxide (CO2) dry chemicals. DO NOT USE full water jet.
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Use pressurized air mask if substance is involved in a fire. Avoid breathing fire vapors. Fireproof overalls/suit, booths and gloves should be worn.
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	This product does not pose a particular hazard.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Fire creates Nitrogen Oxides

<b>6. Accidental Release Measures</b>	
<b>PERSONAL PRECAUTIONS IN SPILL:</b>	Wear disposable gloves and overalls. Boots, Air Hood/Respirator is required.
<b>PRECAUTIONS TO PROTECT ENVIRONMENT:</b>	None
<b>SPILL CLEANUP METHODS:</b>	Granules should be dealt with in such a way as to prevent particles being spread in the air causing an unpleasant taste.

<b>7. Handling and Storage</b>	
<b>USAGE PRECAUTIONS:</b>	While handling manually avoid contact with skin, eyes and clothing. Handle using techniques to minimize dust.
<b>STORAGE PRECAUTIONS:</b>	Keep dry, ventilated storage and closed containers. Keep separate from food, feedstuffs, fertilizers,

	and other sensitive materials.
<b>STORAGE CRITERIA:</b>	Keep in cool dry place.
<b>8. Exposure Controls</b>	
<b>INGREDIENT NAME:</b>	Denatonium Saccharide
<b>CAS No:</b>	90823-38-4
<b>STD:</b>	OES
<b>LT EXP:</b>	No std
<b>ST EXP 15 Min:</b>	No std
<b>INGREDIENT COMMENTS:</b>	OES = Occupational Exposure Standard. MEL = Maximum Exposure Limit
<b>VENTILATION:</b>	If small quantities an airhood or suitable dust mask should be worn. If dust concentrations are high, an airhood or airtuit are recommended.
<b>PROTECTIVE GLOVES:</b>	Use rubber or plastic gloves and sleeving.
<b>EYE PROTECTION:</b>	Wear safety glasses with side shields. Add respiratory protection if concentrations are high.
<b>SKIN PROTECTION:</b>	Disposable overalls if concentrations are high.
<b>HYGIENIC WORK PRACTICES:</b>	Wash at the end of each work shift and before eating, smoking, and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. No eating or drinking while working with this material.

<b>9. Physical and chemical properties</b>	
<b>APPEARANCE:</b>	Crystalline powder
<b>COLOR:</b>	White granules
<b>ODOR/TASTE:</b>	Odorless, bitter taste
<b>BOILING POINT (°C, Interval):</b>	176-182°C
	<b>Pressure:</b> N/A
<b>DENSITY/SPECIFIC GRAVITY (g/ml):</b>	N/A
	<b>Temperature (°C):</b> N/A
<b>VAPOR PRESSURE:</b>	N/A
	<b>Temperature (°C):</b> N/A
<b>SOLUBILITY DESCRIPTION:</b>	3-7ppm in water
<b>FLASH POINT (°C):</b>	N/A
	<b>Method:</b> N/A
<b>AUTO IGNITION TEMPERATURE (°C):</b>	N/A
<b>FLAMMABILITY LIMIT – LOWER (%):</b>	N/A

**FLAMMABILITY LIMIT – UPPER (%):** N/A

**10. Stability and reactivity**

<b>STABILITY:</b>	Product stable up to 140°C
<b>CONDITIONS TO AVOID:</b>	None known
<b>MATERIALS TO AVOID:</b>	Certain strong oxidizing agents such as Sodium Hypochlorite and Hydrogen Peroxide
<b>HAZARDOUS DECOMP PRODUCTS:</b>	Nitrogen oxides are formed when Aversion decomposes on heating or when involved in fire

**11. Toxicology information**

<b>Toxicity Data:</b>	Oral LD50 (Rat) = 1470 mg/kg
<b>INHALATION:</b>	Profuse bad taste, can cause sneezing.
<b>INGESTION:</b>	Extremely bitter substance. No information on adverse effects.
<b>SKIN:</b>	Low skin sensitivity potential and therefore may be mildly irritating to skin.
<b>EYES:</b>	No information available

**12. Ecological Information**

Denatonium Saccharide does not bio-accumulate

**13. Disposal Considerations**

<b>DISPOSAL METHODS:</b>	Dispose of in accordance with local authority requirements. This material should be incinerated in a licensed facility.
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**14. Transport information**

<b>GENERAL:</b>	Supplied in limited quantity packages
<b>IATA/ICAO:</b>	This material is not classified as dangerous

**15. Regulatory Information**

**LABEL FOR SUPPLY:**



**RISK PHRASES:**

R20/22 Harmful by inhalation and if swallowed

**SAFETY PHRASES:**

S36.37 Wear suitable protective clothing and gloves  
 S46 If swallowed seek medical advice immediately and who this container or label

**STATUTORY INSTRUMENTS:**

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health

**GUIDANCE NOTES:**

Occupational Exposure Limits EH40 Introduction to Local Exhaust Ventilation HS(G)37 CHIP for Everyone HSG (108)

**16. Other Information**

**INFORMATION SOURCES:**

Material Safety Data Sheet, Misc. manufactures

**REVISION DATE:**

January 1, 2006

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