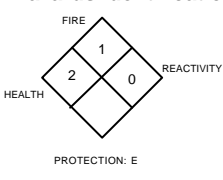


MATERIAL SAFETY DATA SHEET

Revision date: May 08

1	Identification	Manufacturer Name	Nikita Transphase Adducts (P) Ltd, T-96 Tarapur MIDC, Boisar, 401 506, India Office: +91.22.2432 8735, Fax: +91.22.2432 3647	
		Product Name	Denatonium Benzoate	
		Trade Name(s)	Toxi Shield DB, Denatonium Benzoate	
		Chemical Name	phenylmethyl-[2- [(2,6-dimethylphenyl)amino]- 2-oxoethyl]- diethylammonium benzoate, Denatonium Benzoate	
		Chemical Formula	C ₂₈ H ₃₄ N ₂ O ₃	
		Mol Wt	446.581	
2	Composition Information on Ingredients	Ingredient Name	Denatonium Benzoate	
		Percentage	> 99%	
		CAS Number	3734-33-6	
3	Hazards Identification 	Emergency Overview	EXTREMELY BITTER. Causes moderate to severe oral irritation. In confined area dust may cause headache.	
		Potential Health Effects	Short Term	Long Term
		Inhalation	May cause irritation to upper respiratory track.	Not Available
		Skin	May cause mild irritation/redness.	Not Available
		Eye	May cause irritation/redness.	Not Available
		Ingestion	Data Not Available. Safe to assume irritation, nausea, vomiting may occur.	Not Available
		4	First Aid Measures	Inhalation
Skin	Remove contaminated clothing. Wash exposed areas immediately and thoroughly with mild soap and water.			
Eye	Do not rub eyes. Flush thoroughly with water. If irritation persists consult doctor.			
Ingestion	If possible spit out, and clean mouth. Do not induce vomiting. Seek immediate medical help.			
5	Fire Fighting Measures	Flash Point	NA	
		Flammability Limits	IEL : N.A. UEL : N.A.	
		Extinguishing Media	CO ₂ , Dry Chemicals, Foam	
		Fire Fighting Procedures	During emergency conditions, exposure to thermal decomposition/combustion products may be hazardous. Approved self-contained, fully covered breathing apparatus must be used.	
		Usual Fire and Explosion Hazard	When exposed to excessive heat and open flames, will emit irritant fumes and/or smoke. No explosive hazards are expected.	
6	Accidental Release Measures	In case of Spillage or Leakage	Handle in area suitable for containment of spills. Mop up with proper equipment. Avoid release to sewers or environment. Place recovered material in properly marked containers for disposal.	
7	Handling and Storage	Precautions	Avoid prolonged breathing of dust. Avoid prolonged/repeated dermal exposure. Use in areas with adequate ventilation. Keep from excessive heat, sources of fire or sparks.	
		Storage	Keep away from extremely hot areas, and keep containers sealed. Do not leave in open or semi open condition.	

8	Exposure Controls / Personal Protection	Skin	Use appropriate clothing/ impermeable gloves etc to prevent exposure.
		Ventilation	Maintain adequate flow of fresh air to maintain exposure levels minimal.
		Respiration	If adequate ventilation not possible, use approved respiratory protection equipment.
		Eye	Approved goggles to be used at all times.
9	Physical & Chemical Properties	Appearance	White Flowing Powder
		Odor	None
		Solubility in Water	Approx 5-10% at room temperature
		Melting Pt	163-170C (331-338F)
		Freezing Pt	NA
		Specific Gr	NA
		Initial BP	NA
10	Stability & Reactivity	Vap. Pres	NA
		Materials to Avoid	None known.
		Conditions to Avoid	None known.
		Haz Decomposition Products	Normal hydrocarbon combustion products, CO, CO2, NOx
11	Toxicology	Oral LD50	> 500 (mg/kg) Rat oral
		Dermal	NA
		Inhalation	NA
12	Ecological Information		Do not discharge into drains or the environment; dispose to authorized chemical waste collection point.
13	Disposal Consideration		Incinerate in authorized facility or Dispose according to local law.
14	Transport Information	Classification	Not Hazardous for transport UN No : NA
15	Regulatory Information	EC labeling symbols	
		R Phrases	R22 Harmful if swallowed.
		S Phrases	S2 Keep out of the reach of children. S13 Keep away from food, drink and animal feeding stuffs. S24 Avoid contact with skin. S36 Wear suitable protective clothing. S37 Wear suitable gloves. S46 If swallowed, seek medical advice immediately and show this container or label.
16	Other Information		This product is extremely bitter and used as a denaturant for ethanol, meq, antifreeze and several other applications.

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