

The Bitter Bitterants

PRODUCT IN FOCUS



Indrex™ Denatonium

INTRODUCTION

Denatonium is one of the most bitter chemical compounds known and is usually available as **Denatonium Benzoate [DB]** and **Denatonium Saccharide** with bitterness thresholds of 0.05 ppm for the benzoate and 0.01 ppm for the saccharide. They are used as aversive agents (bitterants) to prevent inappropriate ingestion.

The repulsive taste of denatonium can be used as a deterrent on products not designed for consumption and/or are harmful upon consumption.

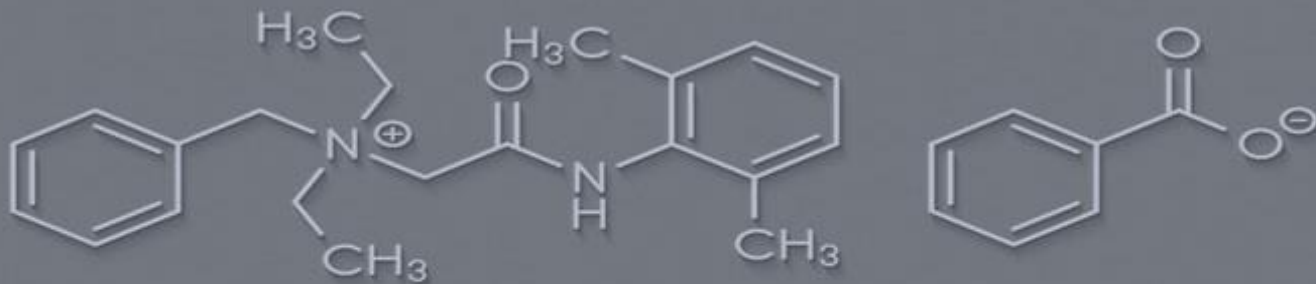
FORMS OF INDREX™ DB:

- Y Powder
- Y Granules
- Y 25% in Mono Ethylene Glycol [MEG]

Synonyms	Lignocaine Benzyl Benzoate, Lidocaine Benzyl Benzoate
CAS no.	3734-33-6
EINECS no.	223-095-2
Molecular Formula	C ₂₈ H ₃₄ N ₂ O ₃

SPECIFICATIONS [INDREX™ DENATONIUM BENZOATE POWDER]

Test	Unit	Specification
Appearance	-	White to off-white powder
Assay	% by mass	99 - 101
Loss on Drying	% by mass	Max 1.0
Chlorides	% by mass	Max 0.2
Acidity (pH of 3% aq. Solution)	-	6.5 - 7.5
Melting Point (by DSC method)	°C	63 - 170 W
Sulphated Ash	% by mass	Max 0.5
Molecular Weight	-	446.5
Residue on Ignition	% by mass	Max 0.1



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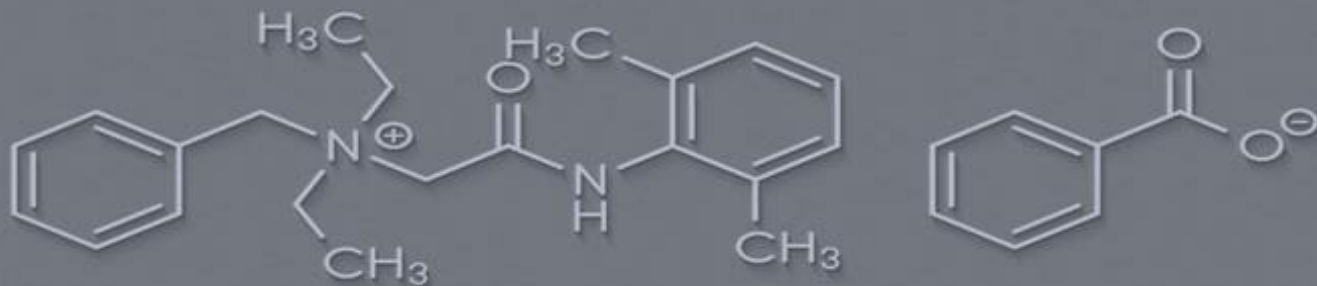


SPECIFICATIONS [INDREX™ DENATONIUM BENZOATE GRANULES]

Test	Unit	Specification
Appearance	-	White colorless granules / crystals
Assay	% by mass	Min 99.0
Loss on Drying	% by mass	Max 1.0
Chlorides	% by mass	Max 0.2
Acidity (pH of 3% aq. Solution)	-	6.5 - 7.5
Melting Point (by DSC method)	°C	163 - 170 on dry basis
Sulphated Ash	% by mass	Max 0.1
Molecular Weight	-	446.5
Residue on Ignition	% by mass	Max 0.1

SPECIFICATIONS [INDREX™ DENATONIUM BENZOATE 25% MEG]

Test	Unit	Specification
Appearance	-	Colorless to pale yellow liquid
Assay	% by mass	24.5 - 26.5
Chlorides	ppm	Max 500
Specific Gravity	-	1.1100 - 1.1300
Refractive Index	-	1.465 - 1.479
pH of 3% solution in water	-	6.5 - 8.5



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Indrex™ Denatonium Saccharide

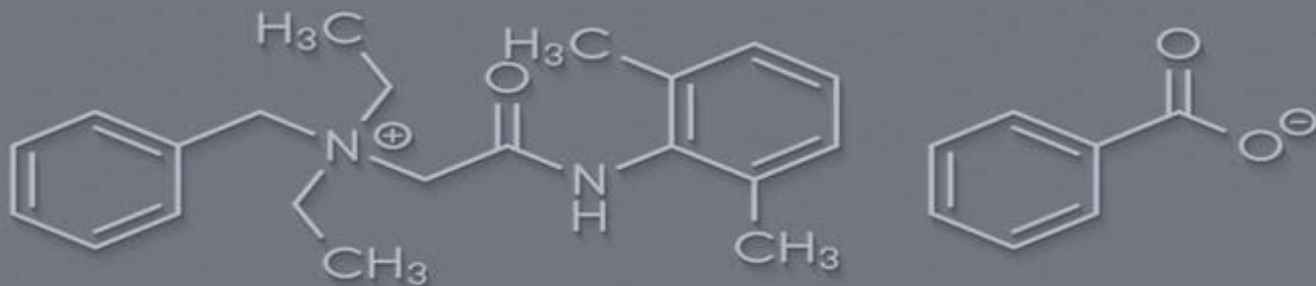
CAS no.	90823-38-4	Chemical Name	Benzyl Diethyl [(2,6 xylylcarbamoyl) methyl] Ammonium Saccharide
Molecular Weight	507.6		

SPECIFICATIONS

Test	Unit	Specification
Appearance	-	White powder
Assay	% wt.	99.0 - 100.5
Melting range	°C	173 - 179

APPLICATIONS [INDREX™ – DENATONIUM BENZOATE & DENATONIUM SACCHARIDE]

INDUSTRY	TYPES OF END PRODUCTS
Denatured Alcohols	Products based on SDA-1 and SDA-40B Alcohols
Industrials	Antifreeze Glycols, Textile Finishing Sprays, Solid Fuels, Coating of Button Batteries, Lead Based Paints, Stripping Agents
Auto Care Products	Brake Fluids, Car Waxes, Car Wash, Windshield Fluids
Household Products	Household Cleaners, Air Fresheners, Laundry Detergents, Disinfectants
Personal Products	Shampoos, Hair Sprays, Medical Wipes, Hair Colorants/Conditioners, Nail Polishes / Removers
Animal Repellant	Pig Paints, Mosquito Repellent Creams
Pesticides	Herbicides, Plant Nutrient Sticks, Insect Baits, Rodenticides



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PACKAGING

Indrex™ Denatonium is offered by ExSyn in following types of packaging:

INDREX™ DENATONIUM BENZOATE

Form	Packaging
Powder & Granules	1 Kg Water Soluble Bags & 10 bags in 1 carton
	25 Kg drum with inner liner
	Can arrange customised packing as well
25% in MEG	200 Kg drum
	1000 Kg IBC

INDREX™ DENATONIUM SACCHARIDE

Form	Packaging
Powder	1 Kg Water Soluble Bags & 10 bags in 1 carton
	25 Kg drum with inner liner
	Can arrange customised packing as well

No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please get in touch with us.