Integrated Chemical Specialties

- a division of Integrated Traffic Systems USA



INDREX™ DB

DENATONIUM BENZOATE

bringing **solutions** to **complex** chemistry

INDREX™ DB

The world's most bitter compound

Denatonium Benzoate is one of the bitterest substances known. Just a few parts per million will make a product so bitter that children and pets will not be able to swallow it. Denatonium Benzoate makes sweet but highly toxic products such as antifreeze and detergents taste foul. Research shows that people can detect Denatonium Benzoate in water at 50 parts per billion. Denatonium Benzoate is bitter at 1 to 10 ppm and most products will become undrinkable at 30 to 100 ppm. Denatonium Benzoate is also stable and inert. In addition, so little is needed that the properties of the product remain unchanged.

Forms of INDREX™ DB

- Powder
- 25% in Mono ethylene Glycol
- Granules
- Saccharide

Typical Applications

Anti-Freeze



Alcohol Denaturant



Household Products



Home Improvement Products





Cosmetics



Pesticides



Automotive Products

Your Preferred Supplier Of High-Quality Chemicals

User 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, rodenticide

CHEMICAL NAME	Benzyl Diethyl {(2,6-xylylcarbamoyl) methyl} Ammonium Benzoate
SYNOMYMS	Lignocaine Benzyl Benzoate; Lidocaine Benzyl Benzoate
CAS NO.	3734-33-6
EINECS NO.	223-095-2
MOLECULAR FORMULA	$C_{28}H_{34}N_2O_3$
MOLECULAR WEIGHT	446.5

INDREX™ DB	TEST	UNIT	SPECIFICATIONS
POWDER	Appearance	-	White to off-white powder
	Assay	% by mass	99 - 101
	Loss on Drying	% by mass	Maximum 1.0
	Chlorides (Cl)	% by mass	Maximum 0.2
	Acidity (pH of 3 % aq. Solution)	-	6.5 – 7.5
	Melting Point (by DSC method)	ºC	63 – 170W
	Sulphated Ash	% by mass	Maximum 0.5
	Molecular Weight	-	446.5
	Residue on Ignition	% by mass	Maximum 0.1
GRANULES	Appearance	-	White colorless granules or crystals
	Molecular Weight	-	446.5
	Melting Point (by DSC method)	ºC	163 – 170, on dry basis
	Assay	% by mass	Minimum 99.0
	Acidity (pH of 3 % aq. Solution)	-	6.5 – 7.5
	Chlorides	% by mass	Maximum 0.2
	Loss on Drying	% by mass	Maximum 1.0
	Sulphated Ash	% by mass	Maximum 0.1
	Residue on Ignition	% by mass	Maximum 0.1
25% MEG	Appearance	-	Colourless 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

CHEMICAL NAME	Benzyl Diethyl [(2,6 xylycarbamoyl) methyl] Ammonium Saccharide
CAS NO.	90823-38-4
MOLECULAR FORMULA	$C_{28}H_{33}N_3O_4S$
MOLECULAR WEIGHT	507.64

SACCHARIDE	Appearance	-	White powder
	Assay	% wt.	99 – 100.5
	Melting Range	ºC	173 -179

ABOUT

Integrated Chemical Specialties

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Integrated Chemical Specialties comprises a competent team of professionals who strive hard to ensure the highest level of quality and service in our business. It is our goal to deliver every product meeting the quality and consistency that our customers expect, irrespective of its origin. Our specialty chemicals are used in a variety of applications and industries. We offer customized solutions through formulated products and excellent technical support.

We consider ourselves a versatile and customer centric company that works closely with its customers to provide them the products they need. Our dedication and motivation have made us who we are today, as that also shapes our future.

At Integrated Chemical Specialties, we believe building solid partnerships with our customer is critical to our success. We as a company endeavor to follow the right path, which will allow us to continue meeting new challenges and exceeding expectations.

YOUR SAFETY OUR CONCERN

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Hire Houston First

Houston Minority Supplier Development Council

NMSDC National Minority Supplier Development Council

WBEA Women's Business Enterprise Alliance

Certified WBENC Women's Business Enterprise

WOMEN OWNED

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