16 Regulatory Status

Denatonium benzoate is used worldwide as a denaturant for alcohol. It is included in the FDA Inactive Ingredients Database (topical gel, solution and swab). Included in the Canadian Natural Health Products Ingredients Database.

As there is a lack of adequate data, any over the counter drug product containing ingredients offered for use as a nail-biting or thumb-sucking deterrent (including denatonium benzoate) cannot be generally recognized as safe and effective.[11]

17 Related Substances

Sucrose octaacetate.

18 Comments

The EINECS number for denatonium benzoate is 223-095-2. The PubChem Compound ID (CID) for denatonium benzoate is 19518.

19 Specific References

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3 Hansen SR. Denatonium benzoate as a deterrent to ingestion of toxic substances: toxicity and efficacy. *Vet Hum Toxicol* 1993; 35(3): 234–236.
4 Rodgers GC. Role of aversive bittering agents in the prevention of pediatric poisonings. *Pediatrics* 1994; 93 (Jan): 68–69.
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8 Health Canada Pest Management Regulatory Agency. Re-evaluation Decision: Denatonium benzoate, 27 April 2012.
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10 Lewis RJ, ed. *Sax's Dangerous Properties of Industrial Materials*, 12th edn. New York: Wiley, 2012: 1328
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20 General References

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21 Author

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22 Date of Revision

4 May 2017.

Dextran

1 Nonproprietary Names

BP: Dextran 1 for Injection
Dextran 40 for Injection
Dextran 60 for Injection
Dextran 70 for Injection

JP: Dextran 40
Dextran 70

PhEur: Dextran 1 for Injection
Dextran 40 for Injection
Dextran 60 for Injection
Dextran 70 for Injection

USP–NF: Dextran 1
Dextran 40
Dextran 70

2 Synonyms

Glucose polymer; dextrans.

3 Chemical Name and CAS Registry Number

2,3,4,5-Tetrahydroxy-6-[3,4,5-trihydroxy-6-[[3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxymethyl]oxan-2-yl]oxyhexanal [9004-54-0]

4 Empirical Formula and Molecular Weight

$[C_6H_{10}O_5]_n$

Dextran is a branched high-molecular-weight polymer of α-D-glucose (dextrose). Dextran polymers are available in various average molecular weight fractions from 1000 Da (dextran 1) to 2 000 000 Da (dextran 2000), with the most common fractions being 1000 Da (dextran 1), 40 000 Da (dextran 40), and 70 000 Da (dextran 70).[1]

The polymer main chain has α(1→6) glycosidic linkages with branching occurring primarily at C3, α(1→3) glycosidic linkages, and occasionally at C4, α(1→4) glycosidic linkages or C2 α(1→2) glycosidic linkages. Commercially available dextrans contain about 95% α(1→6) glycosidic linkages of the main chain and about 5% side branching. About 80% of the side branches are single α-D-glucose subunits with the remaining branches a mixture of side-chains of various lengths.[2]