Hoping this e-mail finds you well

We would like to inquire about some information needed to be reviewed and clarified from your side regarding an approved FDA product; **Bromsite®.**

The quantity of bromfenac sodium **sesquihydrate** descriped in the published label and other reviews on FDA website may need to be revised in light of the following points:

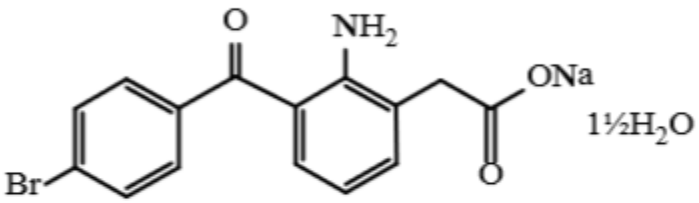
- The molecular weights of Bromfenac sodium sesquihydrate and Bromfenac free acid.
- The quantity stated in the other concentrations.
- The USAN name for bromfenac sodium sesquihydrate is bromfenac sodium.

		Bromsite®	PROLENSA®	XIBROM®
Labeled Strength		0.075%	0.07%	0.09%
mg/ml	bromfenac Free acid (MWt= 334.16)	0.76	0.7	0.9
	QTY/ml; bromfenac sodium (MWt= 356.15)	-	-	-
	QTY/ml; bromfenac sodium sesquihydrate (MWt= 383.17)	0.81*	0.80	1.035
* By calculation ; it should be **0.87 mg** as follows; (1) Using Mwt; 0.76*383.17/334.16=0.87 (2) By extrapolation from other products;0.76*1.035/0.9=87				

Bromsite®

DESCRIPTION

BromSite (bromfenac ophthalmic solution) 0.075% is a sterile aqueous, topical NSAID, formulated in DuraSite® for ophthalmic use. The USAN name for bromfenac sodium sesquihydrate is bromfenac sodium. Bromfenac sodium is designated chemically as sodium [2-amino-3-(4-bromobenzoyl) phenyl] acetate sesquihydrate, with an empirical formula of $C_{15}H_{11}BrNNaO_3 \cdot 1\frac{1}{2}H_2O$. The structural formula for bromfenac sodium sesquihydrate is:



Bromfenac sodium is a bright orange to yellow powder. The molecular weight of bromfenac sodium sesquihydrate is 383.17. BromSite is a greenish-yellow to dark yellow viscous liquid with an osmolality of approximately 290 mOsmol/kg.

Active: Each mL contains bromfenac sodium sesquihydrate 0.81 mg, which is equivalent to bromfenac free acid 0.76 mg.

Preservative: benzalkonium chloride 0.005%

Inactives: boric acid, sodium borate, citric acid anhydrous, sodium citrate dihydrate, poloxamer 407, polycarbophil, sodium chloride, edetate disodium dihydrate, sodium hydroxide (to adjust pH to 8.3), and water for injection (USP).

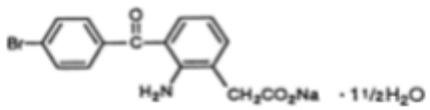
PROLENSA®

11 DESCRIPTION

PROLENSA (bromfenac ophthalmic solution) 0.07% is a sterile, topical, nonsteroidal anti-inflammatory drug

ID: 3288918

(NSAID) for ophthalmic use. Each mL of PROLENSA contains 0.805 mg bromfenac sodium sesquihydrate (equivalent to 0.7 mg bromfenac free acid). The USAN name for bromfenac sodium sesquihydrate is bromfenac sodium. Bromfenac sodium is designated chemically as sodium [2-amino-3-(4-bromobenzoyl) phenyl] acetate sesquihydrate, with an empirical formula of $C_{15}H_{11}BrNNaO_3 \bullet 1\frac{1}{2}H_2O$. The chemical structure for bromfenac sodium sesquihydrate is:



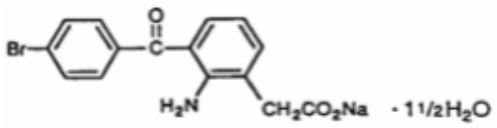
Bromfenac sodium is a yellow to orange crystalline powder. The molecular weight of bromfenac sodium is 383.17. PROLENSA ophthalmic solution is supplied as a sterile aqueous 0.07% solution, with a pH of 7.8. The osmolality of PROLENSA ophthalmic solution is approximately 300 mOsmol/kg.

Each mL of PROLENSA ophthalmic solution contains:
Active: Each mL contains bromfenac sodium sesquihydrate 0.0805%, which is equivalent to bromfenac free acid 0.07%.
Preservative: benzalkonium chloride 0.005%
Inactives: boric acid, edetate disodium, povidone, sodium borate, sodium sulfite, tyloxapol, sodium hydroxide to adjust pH and water for injection, USP.

XIBROM®

XIBROM™
(bromfenac ophthalmic solution) 0.09%
Sterile

Description:
XIBROM (bromfenac ophthalmic solution) 0.09% is a sterile, topical, nonsteroidal anti-inflammatory drug (NSAID) for ophthalmic use. Each mL of Xibrom contains 1.035 mg bromfenac sodium equivalent to 0.9 mg bromfenac free acid. Bromfenac sodium is designated chemically as sodium 2-amino-3-(4-bromobenzoyl) phenylacetate sesquihydrate, with an empirical formula of $C_{15}H_{11}BrNNaO_3 \bullet 1½H_2O$. The structural formula of bromfenac sodium is



Bromfenac sodium is a yellow to orange crystalline powder. The molecular weight of bromfenac sodium is 383.17. XIBROM ophthalmic solution is supplied as a sterile aqueous 0.09% solution, with a pH of 8.3. The osmolality of XIBROM ophthalmic solution is approximately 300 mOsmol/kg. Each mL of XIBROM ophthalmic solution contains: **Active**: bromfenac sodium hydrate 0.1035%. **Inactives**: benzalkonium chloride (0.05 mg/mL), boric acid, disodium edetate (0.2 mg/mL), polysorbate 80 (1.5 mg/mL), povidone (20 mg/mL), sodium borate, sodium sulfite anhydrous (2 mg/mL), sodium hydroxide to adjust the pH, and purified water, USP.

Bromsite® Chemical review

QUALITY ASSESSMENT

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Active: Each mL contains bromfenac sodium sesquihydrate 0.81 mg, which is equivalent to bromfenac free acid 0.76 mg.

Preservative: benzalkonium chloride 0.005%

Inactives: boric acid, sodium borate, citric acid anhydrous, sodium citrate dihydrate, poloxamer 407, polycarbophil, sodium chloride, edetate disodium dihydrate, sodium hydroxide (to adjust pH to 8.3), and water for injection (USP).

Item	Information Provided in NDA	Reviewer's Assessment
Proprietary name and established name		Adequate
Dosage form and route of administration		Adequate
Active moiety expression of strength with equivalence statement for salt (if applicable)		Adequate
Inactive ingredient information (quantitative, if injectables 21CFR201.100(b)(5)(iii)), listed by USP/NF names.		Adequate
Statement of being sterile (if applicable)		Adequate
Pharmacological/ therapeutic class		NA
Chemical name, structural formula, molecular weight		Adequate
If radioactive, statement of important nuclear characteristics.		NA
Other important chemical or physical properties (such as pKa, solubility, or pH)		NA

Conclusion: Adequate. Labeling comments are marked up and highlighted in yellow in this review and will be finalized during team labeling review.

https://www.accessdata.fda.gov/drugsatfda_docs/nda/2016/206911Orig1s000ChemR.pdf