



BUPROPION HYDROCHLORIDE USP

CAS N. 31677-93-7

CODE 1019

BATCH B220036

MAN. DATE 06/2022

RETEST DATE 06/2028

Description : White powder

TEST FOR	SPECIFICATIONS	RESULTS
Identification		
· A) IR	positive	Complies
· B) HPLC	positive	Complies
· C) Chlorides	positive	Complies
Water (KF)	≤ 0.5 %	0.03
Assay (HPLC, on anhydrous basis)	≥ 98.0 ≤ 102.0 %	100.5
Impurities (HPLC) - Limit of m-chlorobenzoic Acid		
· m-chlorobenzoic acid	≤ 0.10 % (USP spec.: NMT 0.2%)	<0.02 (LOQ)
Impurities (HPLC) - Organic Impurities		
· RRT~0.38 (Deschloro bupropion)	≤ 0.1 % (USP spec.: NMT 0.5%)	<0.05 (LOQ)
· RRT~0.58 (Bupropion dione derivative)	≤ 0.1 % (USP spec.: NMT 0.2%)	<0.05 (LOQ)
· RRT~0.71 (o-Bupropion)	≤ 0.1 %	<0.05 (LOQ)
· RRT~0.78 (Chloropropiophenone)	≤ 0.1 %	<0.05 (LOQ)
· RRT~0.92 (USP Rel. Comp. A)	≤ 0.1 % (USP spec.: NMT 0.2%)	<0.05 (LOQ)
· RRT~1.14 (USP Rel. Comp. B)	≤ 0.1 % (USP spec.: NMT 0.2%)	<0.05 (LOQ)
· RRT~2.30 (4-Chlorobupropion)	≤ 0.1 % (USP spec.: NMT 0.2%)	<0.05 (LOQ)
· RRT~2.74 (5-Chlorobupropion)	≤ 0.1 % (USP spec.: NMT 0.2%)	<0.05 (LOQ)
· any other impurity (highest)	≤ 0.10 % (USP spec.: NMT 0.1%)	<0.05 (LOQ)
Total impurities (Limit of m-chlorobenzoic Acid + Organic Impurities)	≤ 0.5 % (USP spec.: NMT 1.0%)	<0.05
<u>Additional specifications</u>		
n-Nitroso-Bupropion (UPLC)	NMT 3 ppm	<3 ppm
2-Bromo-3'-chloropropiophenone (Bromochloropropiophenone) (HPLC)	NMT 3 ppm	<3 ppm
Residual solvents (GC)		
· sec-butyl alcohol	≤ 300 ppm	<100 (LOQ)
· methanol	≤ 1000 ppm	<60 (LOQ)
Particle size (sieving)		
· more than 250 µm	≤ 10 %	1.2
Bulk density	≥ 0.40 ≤ 0.60 g/ml	0.46
Tapped density (1250 taps)	≥ 0.60 ≤ 0.86 g/ml	0.69

OBSERVATIONS :

- Other residual solvents are unlikely to be present
- The impurity 2-Bromo-3'-chloropropiophenone (Bromochloropropiophenone) is evaluated with the USP HPLC method slightly modified

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APPROVED

Electronically signed by
Resp. CQ SOV Stefano Patroni
on Apr 17, 2025 11:48:08