Print Date: Jan 11th 2018

Certificate of Analysis

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Product Name: **DSP-4** **Catalog No.: 2958** **Batch No.: 4**

CAS Number: 40616-75-9

IUPAC Name: *N*-(2-Chloroethyl)-*N*-ethyl-2-bromobenzylamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{11}H_{15}BrClN.HCl$

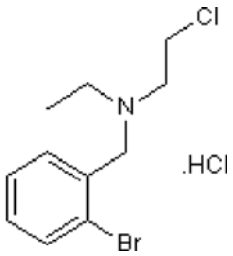
Batch Molecular Weight: 313.06

Physical Appearance: White solid

Solubility: water to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	42.2	5.15	4.47
Found	42.25	5.09	4.44

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Information

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CAS Number: 40616-75-9

IUPAC Name: *N*-(2-Chloroethyl)-*N*-ethyl-2-bromobenzylamine hydrochloride

Description:

Adrenergic neurotoxin. Displays neurotoxic effects on both peripheral and central noradrenergic neurons.

Physical and Chemical Properties:

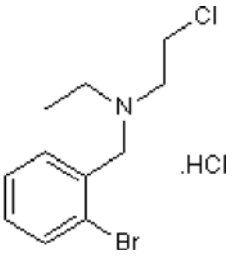
Batch Molecular Formula: $C_{11}H_{15}BrClN.HCl$

Batch Molecular Weight: 313.06

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM
ethanol to 100 mM

CAUTION - This product is extremely hygroscopic and we recommend that it is desiccated upon arrival. We also recommend that solutions are freshly prepared before use.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kawamura *et al* (2005) Short and long term analysis of heart rate variations in spontaneous hypertensive rats: effect of DSP-4 administration. Biomed.Pharmacother. ***59*** S203. PMID: 16275495.

Haidkind *et al* (2002) Denervation of the locus coeruleus projections by treatment with the selective neurotoxin DSP-4 [*N*(2-chloroethyl) -*N*-ethyl-2-bromobenzylamine] reduces dopamine release potential in the nucleus accumbens shell in conscious rats. Neurosci.Letts. ***332*** 79.

Jaim-Etcheverry and Zieher (1980) DSP-4: a novel compound with neurotoxic effects on noradrenergic neurons of adult and developing rats. Brain Res. ***188*** 513. PMID: 7370771.