



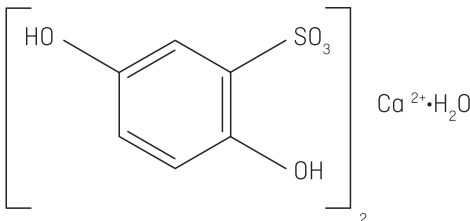
**NORTHERN
SYNTHESIS**

PRODUCT BROCHURE



Calcium Dobesilate Monohydrate E.P.

MAIN INFO

Chemical Name	Calcium di[2,5 – Dihydroxybenzenesulfonate] monohydrate
CAS No	20123-80-2
Therapeutic Category	Vasotropic/Venous Disorder
Structural Formula	
Molecular Formula	$C_{12}H_{10}CaO_{10}S_2 \cdot H_2O$
Molecular mass	436.4 418.4 (anhydrous)

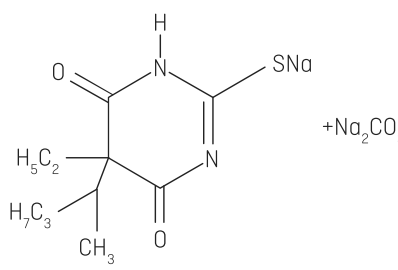
SPECIFICATION

Appearance	A white or almost white, hygroscopic powder
Solubility	Very soluble in water, freely soluble in anhydrous ethanol, very slightly soluble in 2-propanol, practically insoluble in methylene chloride.
Identification	Tests A:B:C as per E.P.
Appearance of solution	As per E.P
pH	4.5-6.0
Related Substance (HPCL)	As per E.P
Heavy Metals	As per E.P
Iron	As per E.P
Water, %	Between 4.0 to 6.0
Assay, % (anhydros substance)	Between 99.0 - 101.0



Thiopental sodium and sodium carbonate E.P./BP

MAIN INFO

Description	Thiopental sodium is a mixture of sodium 5-ethyl-5-[(1R)-1-methylbutyl]-4,6-dioxo-1,4,5,6-tetrahydropyrimidine-2-thiolate and anhydrous sodium carbonate.
CAS No	71-73-8
Therapeutic Category	Anesthetic Agent
Structural Formula	
Molecular Formula	$C_{11}H_{17}N_2NaO_2S$
Molecular mass	264.3

SPECIFICATION

Characers	A yellowish-white powder, hygroscopic, freely soluble in water, partly soluble in anhydrous ethanol.
Identification	Tests A;B;C;D;E as per E.P.
Appearance of solution	As per E.P
Chlorides	NMT 330 ppm
Loss on drying, %	NMT 2.5
Assay (anhydrous substance)	
Sodium, %	10.2 – 11.2
Thiopental, %	84.0 – 87.0
Related impurities (HPLC)	
Impurity A, %	Not more than 0.1
Impurity B, %	Not more than 1.0
Impurity C, %	Not more than 3.0
Impurity D, %	Not more than 0.3
Unspecified impurities, %	Not more than 0.10
Total impurities, %	Not more than 5.0

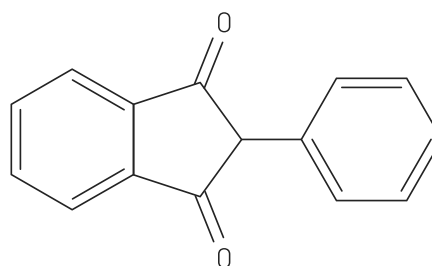


Phenindione BP

MAIN INFO

Chemical Name	2-phenylindane-1,3-dione
CAS No	83-12-5
Therapeutic Category	Oral anticoagulant (indanedione)

Structural Formula



Molecular Formula	$C_{15}H_{10}O_2$
Molecular mass	222.22

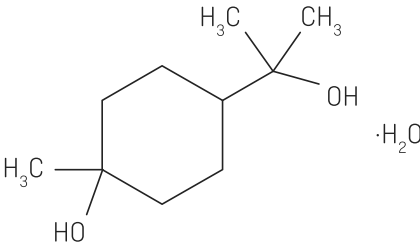
SPECIFICATION

Characters	Soft, white or creamy white crystals; very slightly soluble in water; slightly soluble in ethanol (96%) and in ether. Solutions are yellow to red.
Identification	Tests A;B;C as per BP
Melting point, °C	148-151
Related substances	As per BP
Loss on drying, %	Not more than 1,0
Assay, %	Between 98,0 to 100,5
Sulphated ash, %	Not more than 0,1



Terpin Hydrate USP

MAIN INFO

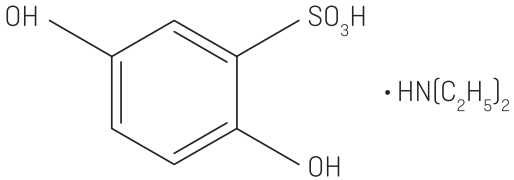
Chemical Name	Cyclohexanemethanol, p-Menthane-1,8-diol monohydrate
CAS No	2451-01-6
Therapeutic Category	Terpin hydrate is an expectorant commonly used to loosen mucus in patients presenting with acute or chronic bronchitis, and related conditions.
Structural Formula	
Molecular Formula	$C_{10}H_{20}O_2 \cdot H_2O$
Molecular mass	190.28 172.27 (anhydrous)

SPECIFICATION

Physical form	Colorless, lustrous crystals, or as a white powder; slight odor and efflorescent in dry air.
Description	Colourless, transparent crystals or white crystalline powder.
Solubility	Slightly soluble in water, soluble in alcohol
Identity	Tests A; B as per USP
Melting point, °C	115-117
Residue of ignition	Not more than 0.1
Water, %	Between 9.0 to 10.0
Residual turpentine	No odor of turpentine oil
Assay, %	Between 98.0 to 100.5

Etamsylate E.P.

MAIN INFO

Chemical Name	N-Ethylethanamine 2,5-Dihydroxybenzenesulfonate
CAS No	2624-44-4
Therapeutic Category	Hemostatic
Structural Formula	 <p style="text-align: right;">• HN(C₂H₅)₂</p>
Molecular Formula	C ₁₀ H ₁₇ NO ₅ S
Molecular mass	263.3

SPECIFICATION

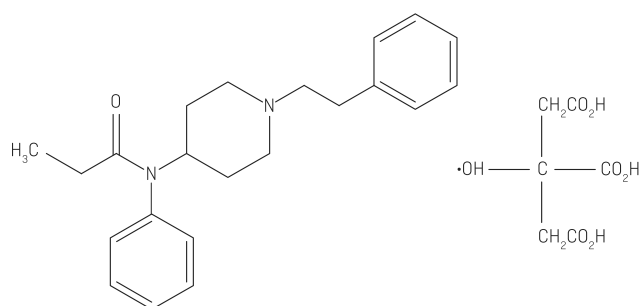
Physical form	A white or almost white crystalline powder, odourless.
Characters	White or almost white, crystalline powder. Very soluble in water, freely soluble in methanol, soluble in anhydrous ethanol, practically insoluble in methylene chloride.
Identification	Tests A:B:C as per E.P.
Appearance of solution	As per E.P
pH	Between 4.5 to 5,6
Related substance (HPLC)	As per E.P
Heavy metals	As per E.P
Iron	As per E.P
Sulfated ash	As per E.P
Loss on drying, %	Not more than 0,5
Assay, % (anhydrous substance)	Between 99.0 to 101.0



Fentanyl Citrate E.P./ USP

MAIN INFO

Chemical Name	N- phenyl-N-[1-(2-phenylethyl) piperidin-4-yl] propanamide dihydrogen2-hydroxypropane-1,2,3-tricarboxylate
CAS No	990-73-8
Physical form	White crystalline powder or white glistening crystals.
Therapeutic Category	Opiate analgesic (narcotic)
Structural Formula	



Molecular Formula	$C_{22}H_{28}N_2O \cdot C_6H_8O_7$
Molecular mass	528.6

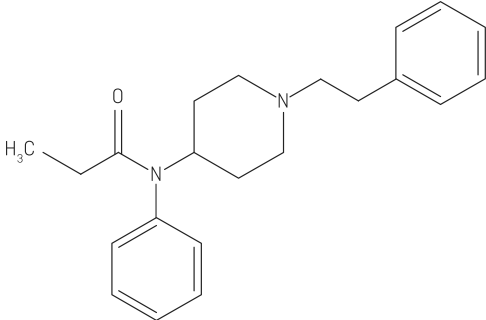
SPECIFICATION

Characters	Soluble in water, freely soluble in methanol, sparingly soluble in ethanol (96%), slightly soluble in chloroform.
Identification	Tests as per E.P./USP
Related substance (HPLC)	As per E.P
Ordinary impurities(TLC)	As per USP
Loss on drying, %	Not more than 0.5
Assay, % (dried substance)	Between 99.0 to 101.0
Appearance of solution	As per E.P.
Melting point, °C	About 152 (with decomposition)
Residue on ignition	As per USP
Heavy metals	As per USP



Fentanyl E.P.

MAIN INFO

Chemical Name	N-phenyl-N-[1-(2-phenylethyl)piperidin-4-yl] propanamide
CAS No	437-38-7
Therapeutic Category	Opiate analgesic (narcotic)
Structural Formula	

Molecular Formula	$C_{22}H_{28}N_2O$
Molecular mass	336.5

SPECIFICATION

Physical form	A white or almost white crystalline powder.
Characters	White or almost white powder, practically insoluble in water, freely soluble in alcohol and in methanol.
Identification	Test as per E.P
Related substance (HPLC)	As per E.P
Loss on drying, %	Not more than 0.5
Assay, calculated with reference to the dried substance, %	Between 99.0 to 101.0
Appearance of solution	Clear and colorless (in 0,03% citric acid)
Melting point, °C	82.0- 86.0
Clarity and color of solution (Ph.Eur.cur.ed. 2.2.1.; 2.2.2 method)	Clear, colorless solution (in 0,03% citric acid)
Melting point °C (Ph.Eur.cur.ed. 2.2.14 method)	82.0-86.0
Sulfated ash, % (Ph.Eur.cur.ed. 2.4.14 method)	NMT 0.1

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