

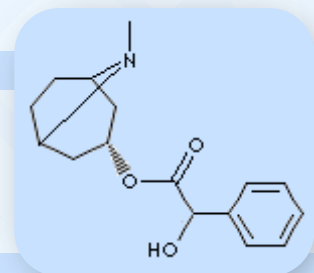
ATROPINE

SYNONYMS

(8-Methyl-8-azabicyclo[3.2.1]octan-3-yl) 3-hydroxy-2-phenylpropanoate; Tropol tropate; 1alphaH,5alphaH-Tropan-3alpha-ol tropate; 3-alpha-Tropanyl 2-phenylhydracrylate; Atropen; Atropin; Atropina; Atropinol; DL-Tropanyl 2-hydroxy-1-phenylpropionate; Isopto-atropine; Tropic acid 3-alpha-tropanyl ester; Tropine tropate; Troyl tropate; alpha-(Hydroxymethyl)benzeneacetic acid 8-methyl-8-azabicyclo(3.2.1)oct-3-yl ester; beta-Phenyl-gamma-oxypropionsaeure-tropanyl-ester; DL-Hyoscyamine; DL-Tropanyltropate; endo-(±)-alpha-(Hydroxymethyl)benzeneaceticacid 8-methyl-8-azabicyclo[3,2,1]oct-3-yl ester;

PRODUCT IDENTIFICATION

CAS RN	51-55-8; 78597-12-3
EINECS RN	200-104-8
FORMULA	C ₁₇ H ₂₃ NO ₃
MOL WEIGHT	289.37



PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	white to off-white powder
MELTING POINT	114 - 118 C
BOILING POINT	
DENSITY	
SOLUBILITY IN WATER	
pH	
VAPOR DENSITY	
REFRACTIVE INDEX	
FLASH POINT	

GENERAL DESCRIPTION

Atropine is the best known of the anticholinergic or parasympatholytic drugs, which inhibit the parasympathetic nervous system. Atropine is an extremely poisonous drug derived from a plant called belladonna. A tincture, an extract, and a leaf fluid extract are still official drugs. Their therapeutic value lies chiefly in their atropine content. Atropine and other parasympatholytics have been frequently used in the treatment of peptic ulcer, which they ameliorate by reducing acid secretions in the stomach when it is empty and by decreasing the strength of smooth muscle contractions. They are also used to treat some other GI disturbances, which are not associated with organic disease--diarrhea, belching, spasm of the pylorus (opening through which the stomach empties into the intestine), and "stomach ache" because of overactivity of the GI smooth muscles. These drugs also relieve cystitis (bladder inflammation) by relaxing smooth muscles of the bladder. These drugs are used in the eye to dilate it and to paralyze accommodation (that is, temporarily prevent the eye from focusing). Atropine is sometimes used to counteract some of the effects of cholinergic drugs during or after their use in therapy. One significant use of atropine in the military is to counteract the effects of nerve gas. Atropine is used preoperatively to decrease the amount of saliva and respiratory secretions, especially when an inhalation anesthetic is to be used. (source: <http://www.tpub.com/>)

Atropine: an anticholinergic alkaloid found in belladonna; it acts as a competitive antagonist of acetylcholine at muscarinic receptors, blocking stimulation of muscles and glands by parasympathetic and cholinergic sympathetic nerves; used as the sulfate salt as a smooth muscle relaxant, as an antiarrhythmic, as a preanesthetic to reduce secretions, as an antidote to poisoning by organophosphorus compounds, cholinesterase inhibitors, or muscarine, and as a mydriatic and cycloplegic. (source: <http://www.mercksource.com/>)



ATROPINE

Tropane is a nitrogenous bicyclic compound in which a piperidine ring and a pyrrolidine ring are fused. This is the basic structure of tropane alkaloids which occur in the Solanaceae family plant mainly. Examples of tropane alkaloids are atropine, scopolamine, cocaine, and ecgonine. Tropane alkaloids are used as anticholinergic, cholinesterase inhibitor, and as cycloplegic and mydriatic. The prefix "nor-" describes normal structure which has no branched chain of carbon atoms. In case of nortropine, it has one less methylene group than tropane. ([Tropane Products](#))

Atropinyl Compounds

Product	CAS RN.
Atropine	51-55-8
Homatropine hydrobromide	51-56-9
Methylatropine nitrate	52-88-0
Atropine sulfate anhydrous	55-48-1
N-Methylatropine	57-69-2
Homatropine methylbromide	80-49-9
Anisotropine methylbromide	80-50-2
Benztropine	86-13-5
Homatropine	87-00-3
Hyoscyamine	101-31-5
Benztropine mesylate	132-17-2
Hyoscyamine hydrobromide	306-03-6
Apoatropine	500-55-0
Xenytropium bromide	511-55-7
Ethybenztropine	524-83-4
Eucatropine hydrochloride	536-93-6
Eucatropine hydrochloride	536-93-6
Homatropine hydrochloride	637-21-8
Atropine, sulfate	2472-17-5
Atropine, sulfate (1:1)	2472-17-5
Oxymethylatropine	2515-36-8
Atropine methobromide	2870-71-5
Phenactropinium chloride	3784-89-2
Phenactropinium chloride	3784-89-2
8-(p-Ethylbenzyl)atropinium bromide	4004-37-9
Atropine Oxide	4438-22-6
Atropine Oxide Hydrochloride	4574-60-1
8-(p-Octylbenzyl)atropinium bromide	4739-93-9
Atropine O-(hydrogen sulfate)	5226-98-2
Atropine-N-octylbromide	5843-82-3
Atropine salicylate	5908-95-2
Atropine sulfate	5908-99-6
Apoatropine hydrochloride	5978-81-4
Atropine hydrobromide	6415-90-3



ATROPINE

Tropacine	6878-98-4
Prampine	7009-65-6
Atropine nitrate	7459-97-4
Neo-secatropin	8056-06-2
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N-Propargylnoratropine	10139-08-9
Somatropin	12629-01-5
(+)-Hyoscyamine	13269-35-7
Propionyl atropine methyl nitrate	14319-87-0
Sultroponium	15130-91-3
Noratropine	16839-98-8
Atropine iodomethylate	17444-28-9
Naltropine	22235-85-4
Ipratropium bromide	22254-24-6
8-Isopropylnoratropine methobromide	24358-20-1
Di-n-propylacetyl-homatropine	29135-16-8
Methylatropine	31610-87-4
Atropine hydrochloride	33952-38-4
Ipratropium	60205-81-4
N-Methylhomatropinium nitrate	60539-03-9
Tropine atropate methylbromide	63978-21-2
Anisotropine methylbromide	70642-90-9
Sulverapride	73747-20-3
Atropine, sulfate hydrate	73791-47-6
N,4-Biphenyl-methyl-O-acetyl-atropiniumbromide	73954-02-6
N-4-Biphenyl-methyl-O-n-butyryl-atropinium-bromid	73954-03-7
N-4-Biphenyl-methyl-O-propionyl-atropinium-bromid	73954-04-8
Atropine beta-(N-morpholinyl)propionate	74191-75-6
Atropine beta-(N-methylpiperazinyl)propionate	74191-76-7
8-(p-(2-Ethylbutyl)benzyl)atropinium bromide	78371-78-5
4-Azidoatropine methiodide	90991-00-7
(1,4-Diethoxybenzene)bisatropinium dibromide	91318-09-1
8-(p-Butylbenzyl)atropinium bromide	101636-41-3
8-(p-tert-Butylbenzyl)atropinium bromide	101636-42-4
8-Benzylatropinium bromide	102432-87-1
beta-8-(p-Ethylbenzyl)atropinium bromide	102432-94-0
8-(p-Isopropylbenzyl)atropinium bromide	102432-96-2
8-(p-Methylbenzyl)atropinium bromide	102432-97-3
8-(p-Pentylbenzyl)atropinium bromide	102433-01-2
Prostatropin	103107-01-3

STABILITY AND REACTIVITY



ATROPINE

STABILITY	Stable under normal conditions. Light Sensitive
CONDITIONS OF INSTABILITY	Excess heat, light. Alkalis, iodine, mercury salts, tannic acids.
INCOMPATIBLE MATERIALS	Strong oxidizing agents. Light
DECOMPOSITION PRODUCTS	Carbon monoxide, Carbon dioxide, Nitrogen oxides.
POLYMERIZATION	Will not occur

SAFETY

HAZARD NOTES	Highly Toxic. Very toxic by inhalation and if swallowed. Target organ(s): Heart. Nerves. Can cause CNS depression.
EYE	May cause eye irritation.
SKIN	May cause skin irritation. May be harmful if absorbed through the skin.
INGESTION	May be fatal if swallowed.
INHALATION	Material may be irritating to mucous membranes and upper respiratory tract. May be fatal if inhaled.
CHRONIC NFPA RATING	Health: 3, Flammability: 0, Reactivity: 1

SALES SPECIFICATION

APPEARANCE	white to off-white crystalline powder
ASSAY	99.0 - 100.5%
MELTING POINT	114 - 118 C
RESIDUE ON IGNITION	0.1% max
OPTICAL ROTATION	-0.65° ~ -0.75°
RELATED SUBSTANCES	Total impurity: 1.0% max, Individual impurity: 0.5% max

TRANSPORT & REGULATORY INFORMATION

UN NO.	
HAZARD CLASS	
PACKING GROUP	
HAZARD SYMBOL	T+
RISK PHRASES	26/28
SAFETY PHRASES	25-45

PACKING

PRICE

