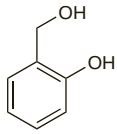
## Salicyl Alcohol *(USAN)*

Salicain; Saligenin; Saligenol. 2-Hydroxybenzyl alcohol.

Салициловый Спирт

$C_7H_8O_2$ = 124.1.

*CAS — 90-01-7.*



NOTE. The name salicain has also been used as a proprietary name for hydroxytetracaine.

### Profile

Salicyl alcohol is reported to have local anaesthetic and analgesic properties and has been used in various topical preparations. It is present in the bark of some trees and has been associated with contact sensitivity; it is also a metabolite of salicin (salicyl alcohol glucoside—see Salix, p.121).

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** ***Fr.:*** Ephydrol.

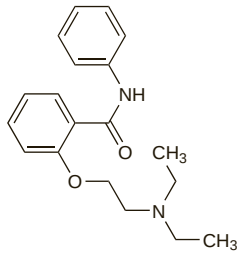
## Salverine Hydrochloride *(rINNM)*

Hidrocloruro de salverina; M-811 (salverine); Salvérine, Chlorhydrate de; Salverini Hydrochloridum. 2-[2-(Diethylamino)ethoxy]-benzanilide hydrochloride.

Сальверина Гидрохлорид

$C_{19}H_{24}N_2O_2$,HCl = 348.9.

*CAS — 6376-26-7 (salverine).*



*(salverine)*

### Profile

Salverine hydrochloride has been used as an antispasmodic in combination preparations for the treatment of biliary-tract disorders, respiratory-tract disorders, and pain.

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** ***Austria:*** Cynarix comp; Montamed; Novipec.

## Salvia Divinorum

Diviner's Sage; Divining Sage; Hierba de María; *Salvia divinorum*; ska María Pastora.

NOTE. The following terms have been used as 'street names' (see p.vi) or slang names for various forms of Salvia divinorum: Big Sal; La Pastora; LSD Lite; Maria Pastora; Sally D; Salvia; Ska; The Shepherdess.

### Profile

Salvia divinorum has been traditionally used in Mexican Indian culture to induce hallucinations and is now a substance of abuse.

◊ References.


1. Prisinzano TE. Psychopharmacology of the hallucinogenic sage *Salvia divinorum*. *Life Sci* 2005; **78:** 527–31.
2. Singh S. Adolescent salvia substance abuse. *Addiction* 2007; **102:** 823–4.


## Sambucus

Bodzavirág; Elder Flower; Fläderblomma; Fleurs de Sureau; Holunderblüten; Juoduogių šeivamedžių žiedai; Květ bezu černého; Kwiat bzu czarnego; Mustaseljankukka; Sabugueiro; Sambuc.; Sambuci flos; Sambuci Nigrae Flos; Saúco; Sureau, fleur de.

**Pharmacopoeias.** In *Eur.* (see p.vii).

**Ph. Eur. 6.2** (Elder Flower). The dried flowers of *Sambucus nigra*. It contains not less than 0.8% of flavonoids, calculated as isoquercitroside with reference to the dried drug. Protect from light.

### Profile

Sambucus has astringent, diaphoretic, and anticatarrhal properties and is used in herbal preparations for a variety of disorders, particularly respiratory-tract disorders. Elder-flower water has been used as a vehicle for eye and skin lotions. Elder-flower ointment has been used as a basis for pomades and cosmetic ointments.

**Homoeopathy.** Sambucus has been used in homoeopathic medicines under the following names: Sambucus nigra; Samb. nig.

### Preparations

**Proprietary Preparations** (details are given in Part 3)

***Cz.:*** Caj z Kvetu Bezu Cerneho; Kvet Bazy Ciernej†; ***Rus.:*** Novo-Passit (Ново-Пассит).

**Multi-ingredient:** ***Austral.:*** Diaco; Sambucus Complex†; ***Austria:*** Entschlackender Abfuhrtee EF-EM-ES; Grippetee St Severin; Krauter Hustensaft; Laxalpin; Sinupret; Solvopret; Tuscalman; ***Canad.:*** Original Herb Cough Drops; ***Cz.:*** Biotussil; Cajova Smes pri Nachlazeni; Detsky Caj s Hermankem; Erkaltungstee†; Novo-Passit; Perospir†; Pulmoran; Reduktan; Sinupret; Species Urologicae Planta; Urcyston Planta; ***Ger.:*** Sinupret; ***Hong Kong:*** Sinupret; ***Hung.:*** Sinupret; ***Indon.:*** Imboost Force; Sinupret; StarMuno; ***Ital.:*** Sambuco (Specie Composta)†; Tiglio (Specie Composta)†; ***Mex.:*** Bisolsinus; Bronkitose Mielimon; ***Philipp.:*** Sinupret; ***Pol.:*** Betasol; Pyrosal; Sinupret; Termasil; ***Rus.:*** Sinupret (Синупрет); ***Singapore:*** Sinupret; ***Spain:*** Natusor Gripotul†; Natusor Sinulan†; ***Switz.:*** Sinupret; Tisane contre les refroidissements; ***Thai.:*** Sinupret; ***UK:*** Cleansing Herbs; EP&C Essence; Hay Fever & Sinus Relief; Hayfever & Sinus Relief; Herb and Honey Cough Elixir; Life Drops; Lion Cleansing Herbs; Lustys Herbalene; Modern Herbals Cold & Catarrh; Sinotar; Tabritis; ***Venez.:*** Dromil Sauco.

## Sandalwood

East Indian Sandalwood; White Sandalwood.

**Pharmacopoeias.** In *Chin.*

### Profile

The wood of white sandalwood, *Santalum album* (Santalaceae), has antibacterial and antispasmodic activity and is used in herbal medicine as an adjunct in the treatment of infections of the lower urinary tract. Sandalwood and its preparations contain essential oil.

Sandalwood oil is used in aromatherapy and in perfumery.

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** ***Austria:*** Brady's-Magentropfen.

## Sanguinaria

Bloodroot; Red Puccoon; Sanguinaria canadensis; Sanguinaris canadensis.

### Profile

Sanguinaria consists of the dried rhizome of *Sanguinaria canadensis* (Papaveraceae). Sanguinarine, an alkaloid extracted from sanguinaria, has been used as an antiplaque agent in toothpaste and mouthwash preparations. Sanguinaria was formerly used as an expectorant but fell into disuse because of its toxicity. Sanguinaria has also been classified by the FDA as a herb that is unsafe for use in foods, beverages, or drugs.

**Homoeopathy.** Sanguinaria has been used in homoeopathic medicines under the following names: Sanguinaria canadensis; Sang. ca.

Sanguinarium nitrate has been used in homoeopathic medicines under the following names: Sanguinarinum Nitricum; Sang. nit.

◊ Reviews.


1. Karlowsky JA. Bloodroot: Sanguinaria canadensis L. *Can Pharm J* 1991; **124:** 260, 262–3, 267.
2. Grenby TH. The use of sanguinarine in mouthwashes and toothpaste compared with some other antimicrobial agents. *Br Dent J* 1995; **178:** 254–8.
3. Tenenbaum H, *et al*. Effectiveness of a sanguinarine regimen after scaling and root planing. *J Periodontol* 1999; **70:** 307–11.


**Malignant neoplasms of the skin.** Self-treatment of basal cell carcinoma on the nasal tip by a 51-year-old man using a topical caustic preparation containing *Sanguinaria canadensis* has been reported.[1] Although a similar caustic paste was originally used in the 1930s as part of Mohs' micrographic surgery (MMS) for some types of skin cancer, the MMS technique in use today is more refined, and self-administration of caustic pastes containing sanguinaria for skin lesions is not recommended.


1. Affleck AG, Varma S. A case of do-it-yourself Mohs' surgery using bloodroot obtained from the internet. *Br J Dermatol* 2007; **157:** 1078–9.


### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** ***Arg.:*** Clematis III Oligoplex†; ***Austral.:*** Lexat†; ***Canad.:*** Bronchial Cough; Mielocol; Viadent†; Wampole Bronchial Cough Syrup†; ***Ital.:*** Dentosan Carie & Alito†; Eudent con Glysan†.

## Sapropterin Hydrochloride *(rINNM)*

Dapropterin Hydrochloride; Hidrocloruro de sapropterina; Sapropterin Dihydrochloride *(USAN)*; Saproptérine, Chlorhydrate de; Sapropterini Hydrochloridum; SUN-0588 (sapropterin or sapropterin hydrochloride); T-1401; (6*R*)-5,6,7,8-Tetrahydrobiopterin Hydrochloride. (–)-(6*R*)-2-Amino-6-[(1*R*,2*S*)-1,2-dihydroxypropyl]-5,6,7,8-tetrahydro-4(3*H*)-pteridinone dihydrochloride.

Сапроптерина Гидрохлорид

$C_9H_{15}N_5O_3$,2HCl = 314.2.

*CAS — 62989-33-7 (sapropterin); 69056-38-8 (sapropterin hydrochloride).*

*ATC — A16AX07.*

*ATC Vet — QA16AX07.*

### Profile

Sapropterin, the active form of tetrahydrobiopterin, is used as the hydrochloride for the diagnosis and treatment of variant forms of phenylketonuria (hyperphenylalaninaemia, p.1922) associated with tetrahydrobiopterin ($BH_4$) deficiency. It is given by mouth in daily doses of 1 to 20 mg/kg, in 2 or more divided doses. It has also been tried for the correction of hyperphenylalaninaemia seen in patients receiving treatment for leukaemia and which has been suggested as a possible cause of neurological symptoms.

◊ References.


1. Ueda S, *et al*. Tetrahydrobiopterin restores endothelial function in long-term smokers. *J Am Coll Cardiol* 2000; **35:** 71–5.
2. Thony B, *et al*. Tetrahydrobiopterin biosynthesis, regeneration and functions. *Biochem J* 2000; **347:** 1–16.
3. Muntau AC, *et al*. Tetrahydrobiopterin as an alternative treatment for mild phenylketonuria. *N Engl J Med* 2002; **347:** 2122–32.
4. Okano Y, *et al*. In vivo studies of phenylalanine hydroxylase by phenylalanine breath test: diagnosis of tetrahydrobiopterin-responsive phenylalanine hydroxylase deficiency. *Pediatr Res* 2004; **56:** 714–19.
5. Pérez-Dueñas B, *et al*. Tetrahydrobiopterin responsiveness in patients with phenylketonuria. *Clin Biochem* 2004; **37:** 1083–90.
6. Opladen T, *et al*. Severe mucitis after sublingual administration of tetrahydrobiopterin in a patient with tetrahydrobiopterin-responsive phenylketonuria. *Eur J Pediatr* 2005; **164:** 395–6.
7. Fiege B, Blau N. Assessment of tetrahydrobiopterin (BH ) responsiveness in phenylketonuria. *J Pediatr* 2007; **150:** 627–30.
8. Levy HL, *et al*. Sapropterin Research Group. Efficacy of sapropterin dihydrochloride (tetrahydrobiopterin, 6R-BH4) for reduction of phenylalanine concentration in patients with phenylketonuria: a phase III randomised placebo-controlled study. *Lancet* 2007; **370:** 504–10.
9. Cosentino F, *et al*. Chronic treatment with tetrahydrobiopterin reverses endothelial dysfunction and oxidative stress in hypercholesterolaemia. *Heart* 2008; **94:** 487–92.


### Preparations

**Proprietary Preparations** (details are given in Part 3)

***Jpn:*** Biopten; ***USA:*** Kuvan.

## Sarsaparilla

Salsaparilha; Salsepareille; Sarsa; Sarsaparilla Root; Smilacis Rhizoma; Zarzaparrilla.

**Pharmacopoeias.** In *Chin.* and *Jpn.* which specify *Smilax glabra*.

### Profile

Sarsaparilla is the dried root of various species of *Smilax* (Liliaceae). It has been used, usually in the form of a decoction or extract, as a vehicle and flavour for medicaments. It is also an ingredient of herbal preparations.

**Homoeopathy.** Sarsaparilla has been used in homoeopathic medicines under the following names: Smilax; Sarsap.

### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** ***Arg.:*** Urinefrol†; ***Austral.:*** Dermaco; Herbal Cleanse†; Proesten†; ***Braz.:*** Elixir de Inhame†; Elixir de Marinheiro†; ***Canad.:*** Damiana-Sarsaparilla Formula†; ***Ger.:*** Pankreaplex Neu†; ***Indon.:*** Instink; Provigor; ***Ital.:*** Tisana Kelemata; ***Malaysia:*** Cleansa Plus†; Total Man†; ***UK:*** Gerard House Reumalex; HRI Clear Complexion; Jamaican Sarsaparilla; Skin Eruptions Mixture; ***Venez.:*** Flocadep.

## Sassafras Oil

Oleum Sassafras; Sasafrás, aceite esencial de.

### Profile

Sassafras oil is a volatile oil distilled from the root or root bark of *Sassafras albidum* (Lauraceae), or from the wood of certain species of *Ocotea* (Lauraceae). It contains safrole.

Sassafras oil has rubefacient properties and was formerly used as a pediculicide. Neither sassafras nor the oil should be taken internally; the use of herb teas of sassafras may lead to a large dose of safrole. The use of safrole in foods has been banned because of carcinogenic and hepatotoxic risks. The use of safrole in toilet preparations is also controlled.

**Poisoning.** A 47-year-old woman experienced 'shakiness', vomiting, anxiety, tachycardia, and raised blood pressure after ingestion of a potentially fatal dose of sassafras oil (5 mL). She was given activated charcoal and symptomatic management.[1]


1. Grande GA, Dannewitz SR. Symptomatic sassafras oil ingestion. *Vet Hum Toxicol* 1987; **29:** 447.


### Preparations

**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** ***Arg.:*** Inhalador Medex; ***Austral.:*** Urinase†; Zam-Buk†; ***Cz.:*** Stopangin; ***Fr.:*** Vegebom; ***Indon.:*** Thymcal; ***Rus.:*** Stopangin (Стопангин); ***S.Afr.:*** Moultons Pain Paint; Zam-Buk†; ***Spain:*** Linimento Klari†.