

often added to the mixture before polymerisation to make it radio-opaque.¹

- Schwandt NW, Gound TG. Resorcinol-formaldehyde resin "Russian Red" endodontic therapy. *J Endod* 2003; 29: 435-7.

Adverse Effects, Treatment, and Precautions

Resorcinol is a mild irritant and may result in skin sensitisation. It should not be applied to large areas of the body, for prolonged periods, or in high concentrations, especially in children, as it is absorbed through intact skin as well as broken skin and may interfere with thyroid function or produce methaemoglobinemia. Resorcinol may produce hyperpigmentation in patients with dark skins and may darken light-coloured hair. Systemic toxic effects of resorcinol are similar to those of phenol and are treated accordingly (see p. 1764.3) but convulsions may occur more frequently.

Abnormal coloration. Resorcinol could cause green discoloration of the urine.¹

- Karlstrand J. The pharmacist and the ostomate. *J Am Pharm Assoc* 1977; NS17: 735-8.

Preparations

Proprietary Preparations (details are given in Volume B)

Single-ingredient Preparations. *Chile:* Dermobarrina; *USA:* Castel.

Multi-ingredient Preparations. *Arg.:* Acnoxin; Astriluge; Bifena; Callicida; Control Acne; Cutidermin Bebe Polvo†; Dermacne; Derma Vagisil Crema; Ecnagel E; Ecnagel; Farmigras; Merbenloc; Nemege; Pinklot; Suffisance; Ukase Derma; Xicanil Control†; *Austral:* Eskamel†; *Braz.:* Pantevit; *Canad.:* Acnomel†; Clearasil Acne Control†; Clearasil Acne Cream†; Clearasil Stay-clear†; Hemo-Pic†; Lanacane Medicated Cream; Mazon Medicated Cream; Sebo Concept D/A; Vagisil; *Chile:* Dermac Crema; *Fr.:* Anaxeryl; Bain de Bouche Lipha†; Gelicar Fort†; Nestosyl; Osmotol; Paracamf; Paradentose†; Squaphane S; Synthol; *Gr.:* Creme Phyllis de Jeunesse; Neo Akmine; Rysolone; *Hong Kong:* Acne-Aid†; *Hung.:* Glycosept; *Indon.:* Bioacne; Rosal; *Verile; Irl.:* Anusol-HC; *Israel:* Pitrisan†; *Ital.:* Blefarolin; Fucina Fenica; Labocaina; *Malaysia:* Acne-Aid†; *Mex.:* Acnomel; Axel; Dermac; Dermocare; Dermocalp; Jabon del Tio Nacho; Shampoo del Tio Nacho†; *NZ:* Lanacane; *Pol.:* Afronis; Hemorectal; *Port.:* Resodermil†; *Rus.:* Fucaseptol (Фукасептол); Fucorin (Фукоцин); Neo-Anusol (Нео-анузол); *S.Afr.:* Anugesic†; Eskamel†; *Singapore:* Acne Clear; Acne-Aid†; Castellani's Paint; *Spain:* Dermomycose Liquido; Milrosina; Resorborina; *Switz.:* Clabin; Eau Precieuse; Lotion decapans; *Thai.:* Anusol†; Zema; *Turk.:* Buce Bleu; Pilo Cura; *USA:* Acnomel; Bensulfoid; Bicozene†; Castaderm; Dermarest; Fungi-Nail; Heal Aid Plus; RA Lotion; Rezamid; Sulfurion; Unguentine Maximum Strength; Vagisil; *Venez.:* Klenyl.

Homeopathic Preparations. *Canad.:* ClearAc Cleanser†.

Pharmacopoeial Preparations

BPC 1973: Magenta Paint;
USP 36: Carbol-Fuchsin Topical Solution; Compound Resorcinol Ointment; Resorcinol and Sulfur Topical Suspension.

Retinaldehyde

Retinal; Retinene; Vitamin A Aldehyde; Ретиальдегид.
 $C_{20}H_{28}O=284.4$
CAS — 116-31-4.
UNII — RR725D715M.

Profile

Retinaldehyde is a derivative of vitamin A (p. 2098.3) that has been used in preparations for skin disorders.

Preparations

Proprietary Preparations (details are given in Volume B)

Single-ingredient Preparations. *Arg.:* Ystheal; *Chile:* Ystheal.

Multi-ingredient Preparations. *Arg.:* Diacneal; Diroseal; Eluage; *Chile:* Diacneal; Diroseal; *Fr.:* Diroseal†; *Venez.:* Diacneal.

Salicylic Acid

Acide salicylique; Acido Ortóixibenzoico; Acidum salicylicum; Kwass salicylowy; Kyselina salicylová; Salicilico, ácido; Salicilo rūgštis; Salicylsäure; Salicylsyra; Salisilik Asit; Salisyliyhappo; Salizylsäure; Szalicilsav; Салициловая Кислота.
2-Hydroxybenzoic acid.
 $C_7H_6O_3=138.1$
CAS — 69-72-7
ATC — D01AE12; S01BC08.
ATC Vet — QD01AE12; QS01BC08.
UNII — O414PZ4LPZ.

Pharmacopoeias. In *Chin., Eur.* (see p. vii), *Int., Jpn, US,* and *Viet.*

Ph. Eur. 8: (Salicylic Acid). White or colourless acicular crystals or a white or almost white, crystalline powder. Slightly soluble in water; freely soluble in alcohol; sparingly soluble in dichloromethane. Protect from light.

USP 36: (Salicylic Acid). White crystals, usually in fine needles or a white, fluffy, crystalline powder. The synthetic form is white and odourless but if prepared from natural methyl salicylate it may have a slightly yellow or pink tint, and a faint, mint-like odour. Soluble 1 in 460 of water, 1 in 15 of boiling water, 1 in 3 of alcohol, 1 in 45 of chloroform, 1 in 3 of ether, and 1 in 135 of benzene.

Uses and Administration

Salicylic acid has **keratolytic** properties and is applied topically in the treatment of hyperkeratotic and scaling skin conditions such as dandruff and seborrhoeic dermatitis (p. 1689.1), ichthyosis (p. 1685.1), psoriasis (p. 1688.1), and acne (p. 1682.2). Preparations usually contain between 2 and 6% salicylic acid, but a wider range of concentrations has been used. It is often used with other drugs, notably coal tar.

Preparations containing up to 60% salicylic acid have been used as a **caustic** for the removal of plantar warts (p. 1689.3), corns, or calluses; surrounding healthy skin should be protected (see below).

Salicylic acid also possesses **fungicidal** properties and is used topically in the treatment of dermatophyte skin infections (see p. 568.1); propyl salicylate and bromosalicylic acid have been used similarly.

Zinc salicylate has been used similarly to salicylic acid in the treatment of seborrhoeic dermatitis and acne.

Adverse Effects and Precautions

Salicylic acid is a mild irritant and application of salicylic acid preparations to the skin may cause dermatitis. Preparations containing high concentrations of salicylic acid can cause skin ulceration or erosion; healthy skin surrounding warts, corns, and calluses should be protected with soft paraffin or specially designed plasters when such preparations are being used. Salicylic acid should be used with care on the extremities of patients with impaired peripheral circulation or diabetes; caution has also been suggested if caustic preparations are used in patients with significant peripheral neuropathy. The drug is readily absorbed through the skin, and symptoms of acute systemic salicylate poisoning (see Aspirin, p. 24.2) have been reported after excessive use; deaths have occurred, mainly in children. To minimise absorption after topical application salicylic acid should not be used for prolonged periods, in high concentrations, on large areas of the body, or on inflamed or broken skin. Contact with mouth, eyes, and other mucous membranes should be avoided. In the UK, the MHRA has recommended that topical oral pain relief preparations containing salicylates should not be used in children under 16 years of age (for details, see Rye's Syndrome, p. 39.3).

Preparations

Proprietary Preparations (details are given in Volume B)

Single-ingredient Preparations. *Arg.:* Callicida; Callicida; Duofilm; Duoforte; Efficlar K; Koal; Neo A-V; Renovate; Salpad; Verrutopic AS; Verrutrix; *Austral.:* Clearasil Blackhead Control; Clearasil DailyClear; Clearasil Medicated Wipes†; Clearasil Ultra Overnight; Clearasil Ultra Rapid; Duofilm; Egozite Cradle Cap; Ionil; John Plunketts Sunspot Cream; *Austria:* Squamasol; *Belg.:* Anticors Diable Vert†; Duofilm; Sicombyl; *Braz.:* A Curitybina; Clean & Clear Gel Secativo; Clean & Clear Hidratante; Clean & Clear Locao Adstringente; Ionil; Kalloplast; Neutrogena Antiacne; *Canad.:* Acnopur†; Almay Clear Complexion†; Artistry Blemish Control†; Aveda Balancing; Avon Clearskin Invisible Blemish Corrector†; Avon Clearskin Purifying Gel Cleanser†; Blemish Control; Carnation; Clearasil Cleanser†; Dermarest; Duofilm; Duoforte; Formula P6†; Medicated Callus Removers†; Medicated Corn Removers†; Neutrogena Acne Wash; Neutrogena Clear Pore†; Neutrogena T/Gel Conditioner†; Noxzema Triple Clean†; Occlusal†; pHisoDerm Acne Mask†; Scholl 2-Drop Corn Remedy; Scholl Callus Remover; Scholl Corn Remover; Sebcur; Sensitive Skin Facial Astringent†; Shiseido Pureness Anti-Shine†; Soluver Plus; Soluver; Trans-Plantar†; Trans-Ver-Sal†; X-Seb; Zap-It†; *Chile:* DHS Sal; Duoplant Gel; Eucerin Piel Grasa†; Eucerin Reductor de Sebo/Grasa; Mediklin; Neutrogena Deep Clean Limpiador Facial; Neutrogena Gel Control Brillol†; Neutrogena Linea Acne†; Neutrogena T/Gel Acondicionador; Quitaallos; *Cz.:* Callous†; Soptal-POS N; Spofaplast†; Urgocor; Verruca Removal†; *Fin.:* Cornina Hansaplast; *Fr.:* Ciella; Coricid le Diable; Feuille de Saule; Ikeriane; Pommade Mo Cochon; Sanitos; Septisol†; Soptal; Transvercid; Tricosteril Coripel†; Urgocor†; *Ger.:* Aknefug-liquid; Collomack; Gehwol Huhnereaugenpflaster extra stark; Gehwol Schalpaste; Gothaplast Hornhautpflaster; Gothaplast Huhnereaugenpflaster; Lygal Kopsalbe N†; Psorimed; Schrundensalbe Dermi-cyl; Soptal-POS N; Squamasol; Urgocor†; Verrucid; *Gr.:* Abadasol†; Adaptoplast; Apso-derm; Asalid; Astemil; Callifugo; Fungiheal; Hansaplast Callous;

Opsor; Opsorad; Psorimed; Salicyd; Salipso; Saronic; Solimed; Zino; *Hong Kong:* Duofilm; Egozite Cradle Cap; *Hung.:* Seal & Heal; *India:* Dersol; Eremis; Keracnyl; *Indon.:* Topix†; Yodsaben†; *Irl.:* Acnisal; Callous Removal Pads; Carnation; Compound W†; Corn Removal Pads; Corn Removers; Occlusal; Pickles; Soft-Corn†; Thiwart; Vericapst†; Verrugon; Wartex; *Israel:* Carnation; Clearax for Sensitive Skin; Salikaren; Scholl Corn/Callous Removers; Trans-Ver-Sal; *Ital.:* Keranon; Salicyl; Trans-Ver-Sal; *Malaysia:* Clearasil 3 in 1 Deep Cleansing Wash†; Clearasil Ice Wash†; Clearasil Ultra Deep Pore†; Clearasil; Egozite Cradle Cap; Ellygy Corns & Warts; Palmer's Skin Success Acne Medication; *Mex.:* Duoplant; Excelsior; Ionil Plus†; Trans-Ver-Sal; *Mon.:* Antalyre; *Neth.:* Formule W; Psorimed†; *NZ:* Duofilm; Egozite Cradle Cap; *Philipp.:* Ionil†; Wart-Off†; *Pol.:* Callous; Corn and Callous; Corn; Keratolysin†; Masc przeciw Odciskom i Zgrubieniom Skory; Saliderm; Seal & Heal; Soft Corn; Urgo Cor†; *Port.:* Calicida Moreno; Transvercid; Urgocor; Verrufilm; *Rus.:* Urgocor Coricid (Ургокор Мозольный); *S.Afr.:* Compound W†; Cross Brand Corn Plasters†; Emzaclear; Freezone†; Jiffy Medi+ Plus†; Piccadilly Foot Ointment; SB Unola Corn Remover†; Trans-Ver-Sal†; Yalta Corn Salve†; *Singapore:* Anti-White Spot; Centa Skin; Clearasil 3 in 1; Clearasil Deep Cleansing; Clearasil Ice Wash; Clearasil Oil Free Gel Wash; Clearasil Skin Perfecting Wash; Clearasil Ultra Acne Clearing; Clearasil Ultra Deep Pore; Clearasil Ultra Rapid Action; Clearasil Ultra Spot Clearing Scrub; Duofilm; FST; Panau Salap; Pineapple Brand Lotion; Senkon White Spot; Toh Skin; White Spot; *Spain:* Callicida Gras†; Callicida Kendu; Callicida Salve†; Callofin†; Unguento Morry; Urgocal†; Verrupatch; Verruplan; *Swed.:* Salsyvas; *Switz.:* Scholl Warzenfilm†; Wurzelto; *Turk.:* Nasiral; Salsil; Scholl Callous†; *UK:* Acnisal; Carnation; Clearasil Double Action Pads; Compound W; Occlusal; Pickles Foot Ointment; Scholl Callus Removal; Scholl Corn Removal; Scholl Veruca Removal; SCR; Snufflebeac Cradle Cap; Verrugon; Wartex; *USA:* Clearasil Clearstick; Compound W; Dr Scholl's Callus Removers; Dr Scholl's Clear Away; Dr Scholl's Corn Removers; Dr Scholl's Corn/Callus Remover; Dr Scholl's Wart Remover; Duofilm; Duoplant; Fostex Acne Medication Cleansing; Freezone; Gordofilm; Hydralic; Ionil Plus†; Ionil; Keralyt; Medioplast; MG217 Sal-Acid; Mosco; Occlusal; Off-Ezy; Oxy Night Watch; P & S; Panscol; Propap†; Psor-a-set; Psoriasis Medicated Wash; SA; Sal-Acid†; Sal-Plant; Salade; Salactic Film; Salacyn; Salex; Salkera; Salxav; Stri-Dex Clear; Trans-Ver-Sal AdultPatch; Trans-Ver-Sal PediaPatch; Trans-Ver-Sal PlantarPatch; Virasal; Wart Remover; Wart-Off; X-Seb; *Venez.:* Acnil; Neutrogena T-Sal.

Multi-ingredient Preparations. Numerous preparations are listed in Volume B.

Homeopathic Preparations. *Fr.:* Billerol.

Pharmacopoeial Preparations

BP 2014: Coal Tar and Salicylic Acid Ointment; Compound Benzoic Acid Ointment; Dithranol and Salicylic Acid Ointment; Dithranol Paste; Salicylic Acid Colloid; Salicylic Acid Cream; Salicylic Acid Ointment; Zinc and Salicylic Acid Paste; BPC 1973: Salicylic Acid and Sulphur Ointment; USP 36: Benzoic and Salicylic Acid Ointment; Salicylic Acid Colloid; Salicylic Acid Gel; Salicylic Acid Plaster; Salicylic Acid Topical Foam; Zinc Oxide and Salicylic Acid Paste.

Salnacedin (USAN, rINNI)

G-201; Salnacedina; Salnacéidine; Salnacedinum; SCY; Сальнацедин.
N-Acetyl-L-cysteine salicylate.
 $C_{17}H_{13}NO_5S=283.3$
CAS — 87573-01-1.
UNII — 02X9QP2NU.

Profile

Salnacedin has anti-inflammatory and keratolytic properties and is applied topically in the treatment of seborrhoeic dermatitis and acne.

Sebacic Acid

Ácido decanodioico; Sebácico, ácido; Себациновая Кислота.
Decanedioic acid; Octane-1,8-dicarboxylic acid.
 $C_{10}H_{18}O_4=202.2$
CAS — 111-20-6.
UNII — 97AN39ICTC.

Profile

Sebacic acid may be used as a buffering agent in cosmetic preparations. Some of its esters, such as diethyl sebacate ($C_{14}H_{26}O_4=258.4$) and diisopropyl sebacate ($C_{16}H_{30}O_4=286.4$) may be used as emollients.

Selenium Sulfide

Selenendisulfid; Selenidisulfid; Seleni Disulfidum; Selenii disulfidum; Selenio, sulfuro de; Sélénium, disulfure de;