

- Lebwohl M, *et al.* An international, randomized, double-blind, placebo-controlled phase 3 trial of intramuscular alefacept in patients with chronic plaque psoriasis. *Arch Dermatol* 2003; **139**: 719–27.
- Korman NJ, Moul DK. Alefacept for the treatment of psoriasis: a review of the current literature and practical suggestions for everyday clinical use. *Semin Cutan Med Surg* 2005; **24**: 10–18.
- Ortonne JP, *et al.* An open-label study of alefacept plus ultraviolet B light as combination therapy for chronic plaque psoriasis. *J Eur Acad Dermatol Venereol* 2005; **19**: 556–63.
- Mease PJ, *et al.* Alefacept in Psoriatic Arthritis Study Group. Alefacept in combination with methotrexate for the treatment of psoriatic arthritis: results of a randomized, double-blind, placebo-controlled study. *Arthritis Rheum* 2006; **54**: 1638–45.

## Preparations

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

**Arg.:** Amevive; **Canad.:** Amevive; **Israel:** Amevive; **Switz.:** Amevive; **USA:** Amevive.

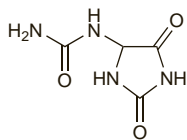
## Allantoin (BAN, USAN)

Allantoin; Alantoína; Alantoinas; Allantoíni; Allantoïne; Allantoinum; Glyoxyldiureide. 5-Ureidohydantoin; 5-Ureidoimidazolidine-2,4-dione; 2,5-Dioxoimidazolidin-4-ylurea.

Аллантоин; Кордианин

C<sub>4</sub>H<sub>6</sub>N<sub>4</sub>O<sub>3</sub> = 158.1.

CAS — 97-59-6.



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

**Ph. Eur. 6.2** (Allantoin). A white or almost white, crystalline powder. Slightly soluble in water; very slightly soluble in alcohol.

**USP 31** (Allantoin). A white crystalline powder. Slightly soluble in water; very slightly soluble in alcohol.

## Profile

Allantoin is an astringent and keratolytic. It is present in multi-ingredient preparations intended for various skin disorders and is also used for its astringent properties in preparations for the treatment of haemorrhoids and other anorectal disorders.

**Psoriasis.** In the USA the FDA decided that allantoin should be removed from lotions indicated for psoriasis as it was considered to be ineffective.<sup>1</sup>

- Anonymous. Nonprescription drug review gains momentum. *WHO Drug Inf* 1991; **5**: 62.

## Preparations

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

**Canad.:** Soothex†; **India:** Masse; **Pol.:** Alantan.

**Multi-ingredient:** **Arg.:** Abanta; Afonisan; Atomoderma A-E; Bushi; Contractubex; Crema Para Paspaduras; Cremosor N; Dermaloe†; Esmedent; con Fluor; Euroderm-A; Factor Vit AE; Glossderm†; Lactocrem Bebe; Lochipor Liposomas Vitaminado; Medic†; Mencogrin; Mencogrin AP; Mencogrin†; Pastillas Lorbi; Pastillas Medex; Quem Plus†; **Austral.:** Acne & Pimple Gel†; Alphosyl; Blistex Medicated Lip Ointment; ER Cream†; Hemocane; Macro Natural Vitamin E Cream; Medi Creme; Medi Pulv; Paxyl; SoloSite; Solypol†; VR†; **Austria:** Alphosyl; Contractubex; Rheumex; Ulcunlen; **Braz.:** Contractubex; Lactrex; Senol†; Vitaderme; **Canad.:** Blistex Medicated Lip Ointment; Phenoris; Tanac†; **Chile:** Dermaglos; Dermaglos Plus†; Lactrex†; Nenegloss; Pancri†; Queratopili; Sanoderm; Ureadin 30; Ureadin Rx DB; Ureadin Rx PS; Ureadin Rx RD; **Cz.:** Brand- und Wundgel†; Contractubex; Jox; Panlid; **Fr.:** Alpha 5 DS†; Alphosyl†; Cicatryl; Erygine; Hydracuire; Prebutix; Provictol†; Purif-Ac Emulsion; Purif-Ac Gel; Seborheane; Spirial; Topialyse Fluide; Topialyse Plus; **Ger.:** Brand- und Wund-Gel Eu Rho†; Contractubex; Ellsuxex; Essaven Tri-Complex†; Haemo-Exhirud†; Hydro Cordes; Leukona-Wundsalbe†; Lipo Cordes; Psoriasis-Salbe 5†; Ulcunlen N†; **Hong Kong:** Blistex Lip Ointment†; Burn Cream†; Contractubex; Ego-derm; Ego-soryl TA; Medipulv†; Pyodontyl†; **Hung.:** Contractubex; Jox†; **India:** Contractubex; New Eye Lotion; Shield; **Indon.:** Mederma; Venile; **Israel:** Alphosyl HC†; Alphosyl†; Comfrey Plus; Pitrisan; Procto-zorin-N; Re-kasitin; **Ital.:** Alphosyl†; Angstrom Viso; Balta-Crin Tar†; Centella Complex; Cerostent; Cerox†; Ginoxil Ecoschiuma; Keraflex; Sensigel; Sensiquel†; Tial-Z; Xerial†; **Malaysia:** Ego-derm; Ego-soryl TA; **Mex.:** Antaderm; Dea-lan; Glossderm; Hipoglos; Hipoglos Cremoso; Lactrex; Sebryl Plus; Sebstop†; Unguento de la Madre; **NZ:** Ego-derm; Ego-soryl TA; Medipulv; **Philipp.:** Contractubex; **Pol.:** Alantan-Plus; Alantavit; Cepan; Contractubex; Dermilan; Mucosil; Pupilek; Septalan; Tointex; **Port.:** Hidratoderme†; **Rus.:** Contractubex (Контрактубекс); Hepatrombin B (Гепатромбин-В); Jox (Йокс); **S.Afr.:** Alphosyl; Arola Rosebalm; Blistex; Clearasil Medicated Facial Cleanser; **Singapore:** Ego-derm; Ego-soryl TA; Erase; **Spain:** Alphosyl; Amplidermes; Antigrietun; Cortenema; Egarone†; Hepro; Polaramine Topi-co; **Swed.:** Alphosyl†; **Switz.:** Alaphasia; Alphosyl†; Alumagall†; Carmol Plus†; Contractubex; Gorgonium; Hepathrombine†; Keli-med; Leniderm†; Lyman; Optrex compresses; Sportium; Unatol; Vulnisan; **Thai.:** Opplint†; **UK:** Actina; Alphosyl HC; Anodesyn; Atopiacin; Vesageex Helbalm; **USA:** Alasulf; Ambesol Cold Sore Therapy; Atopiacin; Blistex Lip Balm; Deltavac; DIFI-2; Der Dermi-Heal†; Ionax Astringent; Orabase Lip; Tanac; Tanac Dual Core; **Venez.:** Alantamida; Lactrex.

## Aloe Vera

Aloe.

Алоэ Вера; Алоэ Древовидное

## Profile

Aloe vera gel is a mucilaginous preparation obtained from the leaves of *Aloe vera* (*A. barbadensis*). It does not include the sap of *Aloe vera*, which contains anthraquinones, and should not be confused with aloe (p.1705).

◇ Aloe vera is widely used in cosmetics and toiletries for a reported moisturising and revitalising action. There are also claims for the beneficial and even curative properties of aloe vera gel in the treatment of conditions such as acne, psoriasis, burns, wounds, arthritis, diabetes, hyperlipidaemia, peptic ulcer, and genital herpes.<sup>1,2</sup> Evidence to support these claims is lacking. There is also no strong evidence to support the use of aloe vera gel in the prevention or treatment of radiation-induced skin reactions in cancer patients.<sup>3</sup>

- Marshall JM. Aloe vera gel: what is the evidence? *Pharm J* 1990; **244**: 360–2.

- Vogler BK, Ernst E. Aloe vera: a systematic review of its clinical effectiveness. *Br J Gen Pract* 1999; **49**: 823–8.

- Richardson J, *et al.* Aloe vera for preventing radiation-induced skin reactions: a systematic literature review. *Clin Oncol (R Coll Radiol)* 2005; **17**: 478–84.

## Preparations

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

**Arg.:** Biorevit Gel†; Capson; Puraloe Post Solar; **Braz.:** Probeks†; Soapelle; **Fr.:** Veraskin; **Ital.:** Epitaloe; **NZ:** Solarcaine Aloe Vera; **Singapore:** Cura-caio.

**Multi-ingredient:** **Arg.:** Abanta; Acuaderm; Aloebe†; Aristaloe; Brunav-era; Controlacne; Crema De Ordene; Dermaloe†; Dermvien†; Eurocolor Post Solar; Europrotec Post Solar†; Galenic Restaurador Capilar; Herbacion Nutriderm†; KVV; Mucobase; Negacne; Odontobiotico†; Olamine; Pedicrem; Puraloe; Puraloe Nutritivo; Refrane P; Refrane Plus; Sadeltan F†; Snella Vag; Solenil Post Solar; Talowin; Yuyo; **Austral.:** Aloe Vera Plus; Lipz Lip Ointment; Percutane; Psor-Assist; Rapaid Rash-Relief; **Braz.:** Actine; Derm'active Solaire†; Malvatricin Natural Soft; **Chile:** Ac-Sal; Fray Romano; Nenegloss; Solarcaine Aloe Vera Gel; Ureadin Rx DB; Ureadin Rx RD; **Cz.:** After Burn†; **Fr.:** Alkagin; Alrai†; Cicatridine; Postopyl†; Rhinodoron; **Ger.:** Rhinodoron; **Hong Kong:** Apaisac; Pregnacare; **India:** Elovera; Elovera-SPF; Solderm; **Indon.:** Jointift; Velostin; **Israel:** Agisten with Aloe Vera; Aphotagone; Apha-X; **Ital.:** Capso; Ektrofl†; Ginoxil Ecoschiuma; Ninfagin; Vicks Baby Balsam†; Vulnopur†; **Malaysia:** Boots Antenatal Massage Cream†; Elovera; Loralis Feminine Hygiene†; Neo-Healar; **Mex.:** Gel-conordin; Hipoglos Cremoso; **NZ:** Chap Stick; Lamisl Odor Eze; Vicks Baby Balsam; **Philipp.:** Elovera; Intima; **Port.:** Alkagin; Antiacneicos Ac-Sal†; Multi-Mam Compressas†; **Singapore:** Cortaid with Aloe†; Destin Creamy†; **UK:** Antiac; Don't Bug Me; Sinose; Solarcaine†; **USA:** Aloe Grande; Biotene with Calcium; Bodi Kleen; Dermtex HC with Aloe; Entertainer's Secret; Geri-Lav Free; Gold Bond Medicated Triple Action Relief; Hawaiian Tropic Cool Aloe with I.C.E.; Hemorid For Women; Maximum Strength Flexall 454; Nasal-Ease; OraMagiRx; RadiaPlex Rx; Solarcaine Aloe Extra Burn Relief; **Venez.:** Andantol Jalea; Fluciac; Gelsam; Jengimiel; Jengimiel Sabila.

## Aluminium Chloride

Aluminio chloridas heksahidratas; Alumiinikloridihexahydraatti; Aluminii chloridum hexahydricum; Aluminio, cloruro de; Aluminium Chloratum; Aluminium (chlorure d') hexahydraté; Aluminium-klorid-hexahydriat; Aluminiumkloridhexahydrat; Aluminium Chloride; Chlorid hlinitý hexahydriat; Cloreto de Aluminio; Cloruro de Aluminio; Glinu chlorek. Aluminium chloride hexahydrate.

Алюминия Хлорида

AlCl<sub>3</sub>·6H<sub>2</sub>O = 241.4.

CAS — 7446-70-0 (anhydrous aluminium chloride); 7784-13-6 (aluminium chloride hexahydrate).

ATC — D10AX01.

ATC Vet — QD10AX01.

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

**Ph. Eur. 6.2** (Aluminium Chloride Hexahydrate). A deliquescent, white or slightly yellow, crystalline powder or colourless crystals. Very soluble in water; freely soluble in alcohol; soluble in glycerol. Store in airtight containers.

**USP 31** (Aluminium Chloride). Deliquescent, white or yellowish-white, practically odourless, crystalline powder. Its solutions are acid to litmus. Soluble 1 in 0.9 of water and 1 in 4 alcohol; soluble in glycerol. Store in airtight containers.

## Adverse Effects

Aluminium chloride may cause irritation especially if applied to damp skin; this is attributed to the formation of hydrochloric acid.

## Uses and Administration

Aluminium chloride has astringent properties and is used in a 20% alcoholic solution as an antiperspirant in the treatment of hyperhidrosis (p.1580). It is applied to dry skin, usually at bedtime, and is washed off in the

morning before the sweat glands are fully active. Initially, it may be applied each night until sweating improves, then less frequently, as required, to maintain efficacy.

## References

- Scholes KT, *et al.* Axillary hyperhidrosis treated with alcoholic solution of aluminium chloride hexahydrate. *BMJ* 1978; **2**: 84–5.
- Ellis H, Scurr JH. Axillary hyperhidrosis – topical treatment with aluminium chloride hexahydrate. *Postgrad Med J* 1979; **55**: 868–9.

## Preparations

**BP 2008:** Aluminium Chloride Solution.

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

**Arg.:** Alumpak; Anhidrot†; Drysol; **Austral.:** Dridor; Odaban†; **Chile:** Drysol; Xerac AC; **Fr.:** Dridor; Etiaxil; **Ger.:** Gargarisma zum Gurgeln; Mal-lebrin Konzentrat; **Hong Kong:** Dridor; **Ir.:** Anhydrol Forte; Dridor; **Israel:** Anhydrol Forte; **Malaysia:** Dridor†; **Mex.:** Drysol; **NZ:** Hidrosol; **Philipp.:** Dridor; **Pol.:** Antidral; **S.Afr.:** Dridor; **Singapore:** Dridor; **Switz.:** Etiaxil; Racemente†; **UK:** Anhydrol Forte; Dridor; Odaban; **USA:** Drysol; Xerac AC.

**Multi-ingredient:** **Arg.:** Carnot Topico; **Chile:** Hidrofulg; Hidrofugal Forte; **Mex.:** Prespir; **Switz.:** Sansilla; **USA:** Stypto-Caine.

## Aluminium Chlorohydrate

Aluminio, clorohidróxido de; Aluminium Chlorhydrate; Aluminium Chloride Hydroxide Hydrate; Aluminium Chlorhydroxide; Aluminium Chloride Hydroxide Hydrate; Aluminium Chlorohydrate (USAN); Aluminium Hydroxychloride; Alüminyum Hidrok-siklorür; Basic Aluminium Chloride.

Алюминия Хлорогидрат

Al<sub>2</sub>(OH)<sub>5</sub>Cl·xH<sub>2</sub>O.

CAS — 1327-41-9 (anhydrous aluminium chlorohydrate).

ATC — D09AA08; M05BX02.

ATC Vet — QD09AA08; QM05BX02.

**Pharmacopoeias.** In *US*.

*US* also includes a range of compounds based on aluminium chlorohydrate. These are:

- aluminium dichlorohydrate and sesquichlorohydrate
- the polyethylene glycol (macrogol) complexes and propylene glycol complexes of aluminium chlorohydrate, aluminium dichlorohydrate, and aluminium sesquichlorohydrate
- the tri-, tetra-, penta-, and octachlorohydrates of aluminium zirconium and their respective glycine derivatives.

**USP 31** (Aluminium Chlorohydrate). A 15% w/w solution in water has a pH of 3.0 to 5.0

## Profile

Aluminium chlorohydrate is used similarly to aluminium chloride in hyperhidrosis (p.1580). Single-ingredient products for hyperhidrosis generally have a concentration in the range of 10 to 25%.

Aluminium chlorohydrate is also included in a variety of dermatological preparations for its astringent and antiperspirant properties.

**Aluminium toxicity.** Bone pain, extreme fatigue, and raised aluminium concentrations in a woman with normal renal function were attributed to the use of an antiperspirant cream containing aluminium chlorohydrate 20%. She had been applying about 1 g of cream to each underarm daily for 4 years. Within 8 months of stopping the antiperspirant, plasma-aluminium concentrations had returned to normal and symptoms had resolved.<sup>1</sup>

- Guillard O, *et al.* Hyperaluminemia in a woman using an aluminium-containing antiperspirant for 4 years. *Am J Med* 2004; **117**: 956–9.

## Preparations

**USP 31:** Aluminium Chlorohydrate Solution; Aluminium Dichlorohydrate Solution; Aluminium Sesquichlorohydrate Solution; Aluminium Zirconium Octachlorohydrate Gly Solution; Aluminium Zirconium Pentachlorohydrate Solution; Aluminium Zirconium Pentachlorohydrate Gly Solution; Aluminium Zirconium Tetrachlorohydrate Solution; Aluminium Zirconium Tetrachlorohydrate Gly Solution; Aluminium Zirconium Trichlorohydrate Solution; Aluminium Zirconium Trichlorohydrate Gly Solution.

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

**Arg.:** Bromhistop; Daewoj†; Normoskin†; Sodorant; **Canad.:** Roll-On†; Scholl Dry Antiperspirant Foot Spray†; **Chile:** Hansaplast Footcare; Hidro-fugal; **Fr.:** pM; **Spain:** **Ger.:** Phosphonorm; **Israel:** Aloxa; **Ital.:** Spinal; **Mex.:** Skin Dry; **NZ:** Neat Effect; Neat Feet; Neat One; Neat Touch; **Port.:** Dermagor; Antitranspirante; Lambda; **Switz.:** Alopon†; Gelsica; Phosphonorm; Sansudor; **Turk.:** Kursept; Terkur†; **UK:** Chiron Barrier Cream; **USA:** Bromi-Lotion.

**Multi-ingredient:** **Arg.:** Neobitoli; Sodorant; Ublodid†; **Austral.:** Nappy-Mate†; Neo-Medrol; **Austria:** Sulgan 99; **Canad.:** Medrol Acne Lotion; Neo-Medrol Acne; **Chile:** Hidrofugal; Hidrofugal Forte; Lady Fittig†; Unage Desodorante Tri-Activ†; **Fin.:** Neo-Medrol comp†; **Fr.:** Spinal; **Ger.:** Ansu-dor†; Epipak†; **Hong Kong:** Neo-Medrol Acne; **Indon.:** Betiga; **Israel:** Fungimol; Neo-Medrol; Pedisol; **Ital.:** Medrol Lozione Antiacne†; **S.Afr.:** Neo-Medrol; **Spain:** Hongosan; Modernin Acne†; **USA:** Breeze Mist Foot Powder; Ostiderm.