

Profile

Creatinine is used as a bulking agent for freeze-drying.

Plasma concentrations or clearance of endogenous creatinine are used as an index of renal function.

Creatinolfosfate Sodium (rINN)

Créatinolfosfate de Sodium; Creatinolfosfato sódico; Natrii Creatinolfosfatum. The sodium salt of 1-(2-hydroxyethyl)-1-methylguanidine O-phosphate.

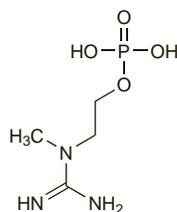
Натрий Креатинолфосфат

$C_4H_{11}N_3NaO_4P = 219.1$.

CAS — 6903-79-3 (creatinolfosfate).

ATC — C01EB05.

ATC Vet — QC01EB05.



(creatinolfosfate)

Profile

Creatinolfosfate has been used as an adjuvant in the treatment of cardiac disorders.

Crotalaria**Profile**

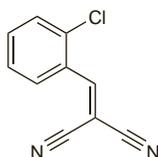
Crotalaria spp. have been used in herbal teas but liver damage has been reported after their ingestion, possibly due to their content of pyrrolizidine alkaloids.

CS Gas

CS Gaz; CS Spray; Gas CS.

$C_{10}H_7ClN_2 = 188.6$.

CAS — 2698-41-1.

**Profile**

CS gas (more properly CS spray) is the name commonly given to a particulate dispersion of α -(*o*-chlorobenzylidene) malonitrile, used as a riot-control agent or 'tear gas'. Its toxic effects include irritation of the eyes and nose, with copious lachrymation and rhinorrhoea; blepharospasm; a burning sensation of the mouth and throat; tightness in the chest, with difficulty in breathing; coughing; an increase in salivation; and retching and vomiting. These effects usually disappear within 15 minutes after exposure ends. The effects of pre-existing disease of the respiratory tract may be exacerbated. Erythema and blistering of the skin may occur.

If symptoms persist, the patient should be removed to a well ventilated area. Treatment is symptomatic. Contaminated skin may be washed with soap and water, but only if symptoms persist since exposure to water may initially exacerbate symptoms. If contamination of the eyes has been severe they should be irrigated with physiological saline or water.

♦ References.

- Hu H, *et al.* Tear gas—harassing agent or toxic chemical weapon? *JAMA* 1989; **262**: 660–3.
- Yih J-P. CS gas injury to the eye. *BMJ* 1995; **311**: 276.
- Gray PJ. Treating CS gas injuries to the eye: exposure at close range is particularly dangerous. *BMJ* 1995; **311**: 871.
- Jones GRN. CS sprays: antidote and decontaminant. *Lancet* 1996; **347**: 968–9.
- Anderson PJ, *et al.* Acute effects of the potent lacrimator *o*-chlorobenzylidene malonitrile (CS) tear gas. *Hum Exp Toxicol* 1996; **15**: 461–5.
- Anonymous. "Safety" of chemical batons. *Lancet* 1998; **352**: 159.

- Varma S, Holt PJ. Severe cutaneous reaction to CS gas. *Clin Exp Dermatol* 2001; **26**: 248–50.
- Nathan R, *et al.* Long-term psychiatric morbidity in the aftermath of CS spray trauma. *Med Sci Law* 2003; **43**: 98–104.
- Blain PG. Tear gases and irritant incapacitants. 1-chloroacetophenone, 2-chlorobenzylidene malonitrile and dibenz[b,f]-1,4-oxazepine. *Toxicol Rev* 2003; **22**: 103–10.

Cubeb

Cubeb Berries; Cubeb Fruit; Cubeba; Java pepper; Tailed Pepper:

Profile

The unripe seeds of cubeb, *Piper cubeba* (Piperaceae), are the source of cubeb oil, which is used in perfumery and aromatherapy.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Cz.:** Naturland Grosser Swedenbitter†; **Rus.:** Doktor Mom (Доктор Мом); Original Grosser Bittner Balsam (Оригинальный Большой Бальзам Биттнера).

Cucurbita

Abóbora; Calabaza, semillas de; Kürbissamen; Melon Pumpkin Seeds; Pepo; Semence de Courge.

Pharmacopoeias. In *Ger.***Profile**

Cucurbita consists of the seeds of *Cucurbita pepo* (Cucurbitaceae) or related species. It was formerly used for the expulsion of tapeworms (*Taenia*).

It is an ingredient of several herbal preparations used in urinary-tract disorders.

Preparations

Proprietary Preparations (details are given in Part 3)

Chile: Lefkur; **Cz.:** Turplex†; **Fr.:** VITIX; **Ger.:** Cysto-Urgenin; Granu Fink Kurbiskern; Nomon mono; Prosta Fink forte; Urgenin Cucurbitae oleum; Uvirgan mono; Vesierb; **Indon.:** Inkurin; **Pol.:** Peronen; Reposterol; Prostopol†; **Rus.:** Peronen (Перонен); Tysceolum (Тыскеол).

Multi-ingredient: **Arg.:** Cellskinlab Phyto Spot; Clean-AC; Cleanance; **Austral.:** Lifechange Mens Complex with Saw Palmetto†; **Canad.:** Prostate Ease; Prostate; ProstGard†; **Chile:** Clean-AC; Cleanance; **Fr.:** Cleanance K; Phytolongbronze; **Ger.:** Granu Fink Kurbiskern N; Granu Fink Prosta; Prostate; Uvirgan N†; **Hong Kong:** Prostate; Sawmetto Vivo-Livo†; **Indon.:** Soprost; **Philipp.:** Castoria; **Pol.:** Prostamer†; **Port.:** Bioclin Sebo Care†; Prostamed†; **Rus.:** Bioprost (Биопрост); **Switz.:** Granu Fink Prosta; Prosta-Caps Chassot N; **UK:** Ymea.

Cusparia

Angostura; Angostura Bark; Carony Bark; Cusparia Bark.

NOTE: 'Angostura Bitters' (Dr. J.G.B. Siegert & Sons Ltd) contains gentian and various aromatic ingredients but no cusparia; it is named after the town in which it was first made.

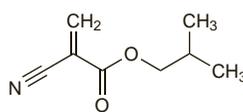
Profile

Cusparia, the bark of *Galipea officinalis* (Rutaceae), has been used as a bitter.

Cyanoacrylate Adhesives

Cianoacrilato, adhesivos de.

CAS — 1069-55-2 (bucrilate); 6606-65-1 (enbucrilate); 137-05-3 (mecrilate); 6701-17-3 (ocrilate).



(bucrilate)

Profile

A number of cyanoacrylate compounds have been used as surgical tissue adhesives. They include:

- bucrilate (bucrylate; isobutyl 2-cyanoacrylate, $C_8H_{11}NO_2 = 153.2$)
- enbucrilate (butyl 2-cyanoacrylate, $C_8H_{11}NO_2 = 153.2$),
- mecrilate (mecrylate; methyl 2-cyanoacrylate, $C_5H_5NO_2 = 111.1$)
- ocrilate (ocrylate; octyl 2-cyanoacrylate, $C_{12}H_{19}NO_2 = 209.3$).

Some cyanoacrylates are used for household purposes and as nail fixatives and others have been investigated as tubal occlusive agents for female sterilisation, for sclerotherapy in bleeding gastric varices (see under Monoethanolamine, p.2346), and for embolisation of intracranial vascular lesions. Cyanoacrylate adhesives have also been used to plug corneal perforations until donor tissue is available.

Adverse effects. Reports of inadvertent application of cyanoacrylate adhesives to the eyes,^{1,2} mouth,³ and ears.^{4,5} Pulmo-

nary embolisation of ocrylate has been reported⁶ when it was used to obliterate gastric varices in a patient.

- Lyons C, *et al.* Superglue inadvertently used as eyedrops. *BMJ* 1990; **300**: 328.
- DeRespinis PA. Cyanoacrylate nail glue mistaken for eye drops. *JAMA* 1990; **263**: 2301.
- Cousin GCS. Accidental application of cyanoacrylate to the mouth. *Br Dent J* 1990; **169**: 293–4.
- O'Donnell JJ, *et al.* Cyanoacrylate adhesive mistaken for ear drops. *J Accid Emerg Med* 1997; **14**: 199.
- Persaud R. A novel approach to the removal of superglue from the ear. *J Laryngol Otol* 2001; **115**: 901–2.
- Rickman OB, *et al.* Pulmonary embolization of 2-octyl cyanoacrylate after endoscopic injection therapy for gastric variceal bleeding. *Mayo Clin Proc* 2004; **79**: 1455–8.

Treatment of adverse effects. In the event of accidental adhesion of the skin the bonded surfaces may be separated after application of acetone, prolonged soaking in warm (not hot) soapy water, and/or mixtures of alcohol and water. Application of liquid paraffin may help in removal from the skin. If necessary, the surfaces may be peeled or rolled apart with the aid of a spatula; attempts should not be made to pull the surfaces directly apart. Acetone and alcohol should not be used near or in the eyes. Solvents such as nitromethane, toluene, or xylene may be used to aid skin detachment from solid objects. Solvents should be used with care and should not be introduced into the oropharynx. Eye-lids stuck together or bonded to the eyeball should be washed thoroughly with saline or water at room temperature for 15 minutes and a gauze patch applied; the eye will open without further action in 1 to 4 days. Manipulative attempts to open the eyes should not be made. Although cyanoacrylate introduced into the eyes may cause double vision and lachrymation there is usually no residual damage. If lips are accidentally stuck together plenty of warm water should be applied and maximum wetting from saliva inside the mouth encouraged. Lips should be peeled or rolled apart and not pulled. Adhesive introduced into the mouth solidifies and adheres, but saliva will lift the adhesive in 7 to 2 days. Care should be taken to avoid choking.

Heat is evolved on solidification of cyanoacrylate and in rare cases may cause burns.

Uses. References to the use of cyanoacrylate adhesives,¹⁻¹⁰ including bucrilate,^{1,2} enbucrilate,^{3,4} and ocrylate.^{5,9}

- Kind R, *et al.* Bucrylate treatment of bleeding gastric varices: 12 years' experience. *Endoscopy* 2000; **32**: 512–9.
- Shepler TR, Seiff SR. Use of isobutyl cyanoacrylate tissue adhesive to stabilize external eyelid weights in temporary treatment of facial palsies. *Ophthalmic Plast Reconstr Surg* 2001; **17**: 169–73.
- Schonauer F, *et al.* Use of Indermil tissue adhesive for closure of superficial skin lacerations in children. *Minerva Chir* 2001; **56**: 427–9.
- Sinha S, *et al.* A single blind, prospective, randomized trial comparing n-butyl 2-cyanoacrylate tissue adhesive (Indermil) and sutures for skin closure in hand surgery. *J Hand Surg (Br)* 2001; **26**: 264–5.
- Kutcher MJ, *et al.* Evaluation of a bioadhesive device for the management of aphthous ulcers. *J Am Dent Assoc* 2001; **132**: 368–76.
- Puri P. Tissue glue aided lid repositioning in temporary management of involutional entropion. *Eur J Ophthalmol* 2001; **11**: 211–4.
- Bernard L, *et al.* A prospective comparison of octyl cyanoacrylate tissue adhesive (dermabond) and suture for the closure of excisional wounds in children and adolescents. *Arch Dermatol* 2001; **137**: 1177–80.
- Mattick A, *et al.* A randomised, controlled trial comparing a tissue adhesive (2-octylcyanoacrylate) with adhesive strips (Steri-strips) for paediatric laceration repair. *Emerg Med J* 2002; **19**: 405–7.
- Magee WP, *et al.* Use of octyl-2-cyanoacrylate in cleft lip repair. *Ann Plast Surg* 2003; **50**: 1–5.
- Singer AJ, *et al.* The cyanoacrylate topical skin adhesives. *Am J Emerg Med* 2008; **26**: 490–6.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Dermabond; **Fr.:** Dermabond; **UK:** Dermabond; Histoacryl; Indermil; LiquiBand; SuperSkin.

Multi-ingredient: **Ger.:** Epiglu; **Ir.:** Epiglu; **UK:** Epiglu.

Cyclobutylol Sodium (rINN)

Ciclobutiról sódico; Cyclobutylol Sodique; Natrii Cyclobutylolium. Sodium 2-(1-hydroxycyclohexyl)butyrate.

Натрий Циклобутирол

$C_{10}H_{17}NaO_3 = 208.2$.

CAS — 512-16-3 (cyclobutylol); 1130-23-0 (cyclobutylol sodium).

ATC — A05AX03.

ATC Vet — QA05AX03.

Profile

Cyclobutylol sodium is a choleric that has been given by mouth. Cyclobutylol betaine, cyclobutylol calcium, and cyclobutylol nicotinamide have been used similarly.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austria:** Trommgallol; **Spain:** Menabil Complex†; Sal-cemetic†; Sugarbil.