Allobarbital is a barbiturate with general properties similar to those of amobarbital (p.961). It has been used in combination preparations for the treatment of sleep disorders and pain but barbiturates are no longer considered appropriate for such purposes.

#### **Preparations**

Proprietary Preparations (details are given in Part 3)

**Multi-ingredient:** Cz.: Dinyl†; Eunalgit†; **Hung.:** Demalgonil; **Pol.:** Krople Zoladkowe; Pabialgin P; **Turk.:** Spasmo-Panalgine.

# Alprazolam (BAN, USAN, rINN)

Alpratsolaami; Alprazolám; Alprazolamas; Alprazolamum; U-31889. 8-Chloro-1-methyl-6-phenyl-4H-1,2,4-triazolo[4,3-a]-[1.4]benzodiazepine.

Алпразолам

 $C_{17}H_{13}CIN_4 = 308.8.$ 

CAS — 28981-97-7 (alprazolam).

ATC - N05BA12.

ATC Vet - QN05BA12.

NOTE. The following terms have been used as 'street names' (see p.vi) or slang names for various forms of alprazolam:

Benzo; Coffins; Dogbones; Fo' Bars; Fo's; Footballs; Forgetful Pills; Four Bars; French Fries; Gold Bars; Green Bars; Quad bar; School Buses; Sticks; Totem Poles; White Bars; X-Boxes; Xan-Bars; Xannies; Xanny; Zanny; Z-Bars; Zan-Bars; Zannies; Zan-

Pharmacopoeias. In Chin., Eur. (see p.vii), Jpn, and US. Ph. Eur. 6.2 (Alprazolam). A white or almost white, crystalline powder. It exhibits polymorphism. Practically insoluble in water; sparingly soluble in alcohol and in acetone; freely soluble in dichloromethane. Protect from light.

USP 31 (Alprazolam). A white to off-white crystalline powder. Insoluble in water; soluble in alcohol; sparingly soluble in acetone; freely soluble in chloroform; slightly soluble in ethyl acetate.

## **Dependence and Withdrawal**

As for Diazepam, p.987. Dependence may be a particular problem at the high doses used in the treatment of panic attacks.

## **Adverse Effects and Treatment**

As for Diazepam, p.987.

Effects on the liver. A patient receiving phenelzine for depression developed abnormal liver enzyme values on 2 occasions when alprazolam was added to the treatment. 1 It was not possible to say if this was due to alprazolam alone or a synergistic effect with phenelzine.

Roy-Byrne P, et al. Alprazolam-related hepatotoxicity. Lancet 1983; ii: 786–7.

**Effects on the skin.** There have been some reports of alprazolam-induced photosensitivity.  $^{1.2}$ 

- Kanwar AJ, et al. Photosensitivity due to alprazolam. Dermologica 1990; 181: 75.
- Watanabe Y, et al. Photosensitivity due to alprazolam with positive oral photochallenge test after 17 days administration. J Am Acad Dermatol 1999; 40: 832-3.

Overdosage. A retrospective analysis of 2063 hospital admissions for benzodiazepine overdosage in one region of Australia between January 1987 and October 2002 found that patients who took an overdose of alprazolam were about twice as likely to require admission to intensive care. Flumazenil was required in 14% of the 131 alprazolam overdoses, and ventilation in 16%, which was significantly more than for other benzodiazepines. Given the apparently greater toxicity of alprazolam in overdosage, its increasing prescription to groups at risk of self-poisoning was of concern.

1. Isbister GK, et al. Alprazolam is relatively more toxic than other benzodiazepines in overdose. Br J Clin Pharmacol 2004; 58:

# **Precautions**

As for Diazepam, p.988.

Abuse. High doses of alprazolam taken after maintenance doses of methadone produced a 'high' without pronounced sedation; the drug was also misused by nonopioid-drug abusers. 1 The usual urine toxicology screens for benzodiazepines often give falsenegative results for alprazolam because of the extremely low concentrations of metabolites excreted, making abuse difficult to detect. A subsequent review<sup>2</sup> considered that the literature did not support the widely held belief that alprazolam had a greater liability for abuse than other benzodiazepines, but the possibility could not be discounted.

- Weddington WW, Carney AC. Alprazolam abuse during methadone maintenance therapy. JAMA 1987; 257: 3363.
- 2. Rush CR, et al. Abuse liability of alprazolam relative to other commonly used benzodiazepines: a review. Neurosci Biobehav Rev 1993; 17: 277-85.

Breast feeding. The American Academy of Pediatrics1 considers that, although the effect of alprazolam on breast-fed infants is unknown, its use by mothers during breast feeding may be of concern since anxiolytic drugs do appear in breast milk and thus could conceivably alter CNS function in the infant both in the short and long term.

From a study<sup>2</sup> of the distribution of alprazolam into breast milk in 8 lactating women it was estimated that the average daily dose of alprazolam ingested by a breast-fed infant would range from 0.3 to 5 micrograms/kg or about 3% of a maternal dose.

- American Academy of Pediatrics. The transfer of drugs and other chemicals into human milk. *Pediatrics* 2001; 108: 776–89. Correction. ibid.; 1029. Also available at:
- http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b108/3/776 (accessed 28/04/04)

  2. Oo CY, et al. Pharmacokinetics in lactating women: prediction of alprazolam transfer into milk. Br J Clin Pharmacol 1995; 40: 231-6.

Handling. Care should be taken to prevent inhaling particles of alprazolam and exposing the skin to it.

Hepatic impairment. Alprazolam 1 mg by mouth was absorbed more slowly in 17 patients with alcoholic cirrhosis with no ascites than in 17 healthy subjects. Mean peak alprazolam concentrations were achieved after 3.34 hours in the cirrhosis patients and 1.47 hours in the healthy subjects. Mean elimination half-life for cirrhosis patients was 19.7 hours compared with 11.4 hours for subjects from the healthy group. However, there were no significant differences in the maximum plasma concentrations achieved. The results indicate that alprazolam, in common with other benzodiazepines that undergo oxidative metabolism, would accumulate to a greater extent in patients with alcoholic liver disease than in healthy subjects; the daily dose of alprazolam may need to be reduced by half in this population. See also Administration in Hepatic or Renal Impairment, below.

Juhl RP, et al. Alprazolam pharmacokinetics in alcoholic liver disease. J Clin Pharmacol 1984; 24: 113–19.

Porphyria. Alprazolam is considered to be unsafe in patients with porphyria because it has been shown to be porphyrinogenic in in-vitro systems.

### Interactions

As for Diazepam, p.989.

## **Pharmacokinetics**

Alprazolam is well absorbed from the gastrointestinal tract after oral doses, peak plasma concentrations being achieved within 1 to 2 hours of a dose. The mean plasma half-life is 11 to 15 hours. Alprazolam is 70 to 80% bound to plasma proteins, mainly albumin. It is metabolised in the liver, primarily by the cytochrome P450 isoenzyme CYP3A4. Metabolites include α-hydroxyalprazolam, which is reported to be about half as active as the parent compound, 4-hydroxyalprazolam, and an inactive benzophenone. Plasma concentrations of metabolites are very low. Alprazolam is excreted in urine as unchanged drug and metabolites.

- Greenblatt DJ, Wright CE. Clinical pharmacokinetics of alprazolam: therapeutic implications. Clin Pharmacokinet 1993; 24: 453–71.
- 2. Wright CE, et al. Pharmacokinetics and psychomotor performance of alprazolam: concentration-effect relationship. J Clin Pharmacol 1997: 37: 321-9.
- Kaplan GB, et al. Single-dose pharmacokinetics and pharmaco-dynamics of alprazolam in elderly and young subjects. J Clin Pharmacol 1998; 38: 14–21.
- Park J-Y, et al. Effect of CYP3A5\*3 genotype on the pharmacok-inetics and pharmacodynamics of alprazolam in healthy sub-jects. Clin Pharmacol Ther 2006; 79: 590–9.

## **Uses and Administration**

Alprazolam is a short-acting benzodiazepine with general properties similar to those of diazepam (p.992). It is used in the short-term treatment of anxiety disorders in oral doses of 250 to 500 micrograms three times daily, increased where necessary to a total daily dose of 3 or 4 mg. In elderly or debilitated patients, an initial dose of 250 micrograms two or three times daily has been suggested. For doses in patients with hepatic or renal impairment, see below.

Doses of up to 10 mg of alprazolam daily have been used in the treatment of panic attacks. A modifiedrelease preparation of alprazolam is also available for once-daily dosing.

Administration in hepatic or renal impairment. UK licensed product information advises caution when using alprazolam in patients with hepatic or renal impairment; it is contraindicated in those with severe hepatic impairment. In the USA, licensed product information states that patients with advanced liver disease may be given an initial dose of 250 micrograms two or three times daily.

Anxiety disorders. The management of anxiety disorders, including the use of benzodiazepines, is discussed on p.952.

- 1. Cross-National Collaborative Panic Study, Second Phase Investigators. Drug treatment of panic disorder: comparative efficacy of alprazolam, imipramine, and placebo. *Br J Psychiatry* 1992; **160:** 191–202.
- 2. Lepola UM, et al. Three-year follow-up of patients with panic disorder after short-term treatment with alprazolam and imipramine. Int Clin Psychopharmacol 1993; 8: 115-18.
- 3. Pollack MH, et al. Long-term outcome after acute treatment with alprazolam or clonazepam for panic disorder. *J Clin Psychopharmacol* 1993; **13:** 257–63.
- Woodman CL, et al. Predictors of response to alprazolam and placebo in patients with panic disorder. J Affect Disord 1994; 30: 5–13.
- Spiegel DA. Efficacy studies of alprazolam in panic disorder. Psychopharmacol Bull 1998; 34: 191–5.

Depression. Although they may be useful for associated anxiety, benzodiazepines are not usually considered appropriate for treatment of depression (p.373); however, some drugs such as alprazolam have been tried for this indication.

Kravitz HM, et al. Alprazolam and depression: a review of risks and benefits. J Clin Psychiatry 1993; 54: (suppl.): 78–84.

**Premenstrual syndrome.** Alprazolam has been reported <sup>1-3</sup> to have produced a marginal to good response in the premenstrual syndrome (p.2099) but others have not found it to be of benefit,4 and the role of benzodiazepines is limited by their adverse effects. If benzodiazepines are selected it is recommended that in order to reduce the risk of dependence and withdrawal symptoms they should be carefully restricted to the luteal phase in selected patients.5 Withdrawal symptoms may be more severe after shortacting drugs such as alprazolam. Antidepressant drugs such as SSRIs may be preferred.

- 1. Smith S, et al. Treatment of premenstrual syndrome with alpra zolam: results of a double-blind, placebo-controlled, randomized crossover clinical trial. *Obstet Gynecol* 1987; **70**: 37–43.
- 2. Harrison WM, *et al.* Treatment of premenstrual dysphoria with alprazolam: a controlled study. *Arch Gen Psychiatry* 1990; **47:** 270–5.
- 3. Freeman EW, et al. A double-blind trial of oral progesterone alprazolam, and placebo in treatment of severe premenstrual syndrome. *JAMA* 1995; **274**: 51–7.
- Evans SM, et al. Mood and performance changes in women with premenstrual dysphoric disorder: acute effects of alprazolam. Neuropsychopharmacology 1998; 19: 499–516.
- 5. Mortola JF. A risk-benefit appraisal of drugs used in the management of premenstrual syndrome. Drug Safety 1994; 10: 160-9.

Tinnitus. Alprazolam has been tried in the management of tinnitus (p.1866).

References.

- Johnson RM, et al. Use of alprazolam for relief of tinnitus: a double-blind study. Arch Otolaryngol Head Neck Surg 1993;
- 2. Huynh L, Fields S. Alprazolam for tinnitus. Ann Pharmacother 1995; 29: 311-12
- 3. Vernon JA, Meikle MB. Masking devices and alprazolam treatment for tinnitus. Otolaryngol Clin North Am 2003; 36: 307-20.

## **Preparations**

USP 31: Alprazolam Oral Suspension; Alprazolam Tablets.

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

Proprietary Preparations (details are given in Part 3)

Arg.: Alplax, Alprazol; Amziax, Ansielix, Aplacaina; Bayzolam; Becede; Bestrol; Calmol; Emeral; Isoproxal; Krama; Medronal; Nivelan N; Prenadona; Prinox, Psicosedoi, PTA; Relaxten; Retanţ; Rilow; Tensium; Thiprasolan; Tranquinal; Xanax; Austral.; Alprax Kalma; Xanax, Austral: Alprazatad; Alprazyned; Docalprazo; Topazolam; Xanax; Braz.: Alfron; Altrox; Apraz, Constante; Frontal; Neozolam; Tranquinal; Canad.; Apo-Alpraz; Novo-Alprazo; Nul-Alpraz; Xanax; Chile: Adax; Grifolapram; Prazam; Sanerva; Tricalma; Zotran; Cz.: Frontin; Helex; Neurol; Xanax; Denm.; Alprox, Tafli; Fin.: Alprox, Xanor; Fr.: Xanax; Geriz: Cassadar; Tafli; Xanax; Griz: Antanax; Saturnil; Xanax; Hong Kong; Alprax; Nalion; Renax; Xanax; Hung.: Frontin; Xanax; India: Alprax; Alprox; Calmax; Gerax; Xanax; Israel: Alpralid; Alprox; Xanagis; Xanax; Israel: Alpralid; Alprox; Xanagis; Xanax; Israel: Alpralid; Alprox; Xanax; Malysia: Alpranax; Apo-Alpraz; Xanax; Mex.: Alzam; Farmapram; Irizz; Neupax; Tafli; Neth.: Xanax; Norw.: Xanor; NZ: Xanax; Polit; Alprax; Nanor; Pol.: Alfobam; Alprazomerck; Alprox; Neurol; Xanax; Zomiren; Port.: Alpronax; Pazolam; Prazam; Unilan; Xanax; Rus.: Alzolam (Avaovan); Helex (Keneck); Neurol (Heypon); Xanax; (Kcanax); S., Afr.: Alzam; Anxirid; Xaro; Drimpam†; Xanolam†; Xanor; Zopax; Singapore: Apo-Alpraz; Dizolam†; Xanax; Tadax; Anax; An

tranax†; Pharnax; Siampraxol; Xanacine; Xanax; Xiemed; **Turk.**: Xanax; **UK:** Xanax; **USA:** Niravam; Xanax; **Venez.**: Abaxon; Alpram; Ansilan; Danoxt: Tafil.

Multi-ingredient: Arg.: Alplax Digest; Alplax Net; Ansielix Digest; Euciton Stress; Novo Vegestabil†; Sidomal; Tensium Gastric; Tranquinal Soma; India: Fludep Plus; Restyl Forte; Restyl Plus; Stresnil; Zopax Plus.

## Amisulpride (BAN, rINN)

Amisülprid; Amisulprid; Amisulprida; Amisulprida; Amisulpridi; Amisulpridum; Amiszulprid; DAN-216. 4-Amino-N-[(1-ethyl-2pyrrolidinyl)methyl]-5-(ethylsulphonyl)-2-methoxybenzamide; (RS)-4-Amino-N-[(I-ethylpyrrolidin-2-yl)methyl]-5-(ethylsulfonyl)-o-anisamide.

Амисульприд  $C_{17}H_{27}N_3O_4S = 369.5.$ CAS - 71675-85-9. ATC — N05AL05. ATC Vet - QN05AL05.

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

Ph. Eur. 6.2 (Amisulpride). A white or almost white crystalline powder. Practically insoluble in water; sparingly soluble in dehydrated alcohol; freely soluble in dichloromethane.

#### Adverse Effects, Treatment, and Precautions

Although amisulpride may share some of the adverse effects seen with the classical antipsychotics (see Chlorpromazine, p.969), the incidence and severity of such effects may vary. Insomnia, anxiety, and agitation are common adverse effects with amisulpride. Other less common effects include drowsiness and gastrointestinal disorders such as constipation, nausea, vomiting, and dry mouth. Allergic reactions, abnormal liver function tests, and seizures have been reported rarely.

Hyperprolactinaemia, which may result in galactorrhoea, amenorrhoea, impaired fertility, gynaecomastia, breast pain, and sexual dysfunction, has occurred with amisulpride use. Weight gain has also been noted. Dose-related extrapyramidal dysfunction may occur, but symptoms such as acute dystonia, parkinsonism, and akathisia are generally mild at licensed doses. Tardive dyskinesia has been reported after long-term use and there have been rare cases of neuroleptic malignant syndrome. Hypotension and bradycardia have been reported occasionally; QT prolongation, in rare cases leading to torsade de pointes, has also been noted. The risk of QT prolongation is increased by pre-existing conditions such as bradycardia, hypokalaemia, and congenital or acquired QT prolongation; patients should be reviewed for these conditions before starting amisulpride treatment. Certain medications may also increase the risk (see Interactions, below).

Amisulpride should not be given to patients with phaeochromocytoma or prolactin-dependent tumours. It should be used with caution in patients with severe renal impairment, or a history of epilepsy or Parkinson's disease. The risk of hypotension and sedation is increased in elderly patients.

Amisulpride may affect the performance of skilled tasks including driving.

Withdrawal symptoms have occurred rarely when amisulpride has been stopped abruptly; a gradual dose reduction may be appropriate when stopping amisul-

Dementia. The FDA has issued advice against the use of atypical antipsychotics in the treatment of behavioural problems in elderly patients with dementia after analysis of placebo-controlled studies showed an increased risk of mortality with certain drugs of this class. See under Risperidone, p.1024.

Effects on body-weight. A review has suggested that the risk of weight gain with amisulpride treatment is less than with olanzapine or risperidone, although cases have been reported.2 The increased risk of weight gain with some atypical antipsychotics is also discussed under Adverse Effects of Clozapine, p.981.

- 1. McKeage K. Plosker GL. Amisulpride: a review of its use in the management of schizophrenia. *CNS Drugs* 2004; **18:** 933–56.

  2. Papadimitriou GN, *et al.* Acute weight gain induced by amisul-
- pride monotherapy in a first-episode schizophrenic patient. Int Clin Psychopharmacol 2006; 21: 181-4.

Effects on carbohydrate metabolism. The increased risk of glucose intolerance and diabetes mellitus with some atypical antipsychotics, and recommendations on monitoring, are discussed under Adverse Effects of Clozapine, p.981.

Effects on lipid metabolism. The increased risk of hyperlipidaemia with some atypical antipsychotics is discussed under Adverse Effects of Chlorpromazine, p.970. See also Effects on Carbohydrate Metabolism under Adverse Effects of Clozapine,

Overdosage. The effects of overdosage of amisulpride in 2 patients have been reported.1 The first patient had taken about 3 g of amisulpride and an unknown amount of dosulepin and was found to have had a blood-amisulpride concentration of 9.63 micrograms/mL. Generalised convulsions, which resolved spontaneously, were followed by coma, motor restlessness, tachycardia, and slight prolongation of the QT interval. The patient was treated with gastric lavage and had recovered within 48 hours. The second patient, who had been found dead, had a blood-amisulpride concentration of 41.7 micrograms/mL. Severe cardiotoxicity occurred in 4 further cases of amisulpride overdoses of between about 4 and 32 g reported to Australian poisons information centres;2 all 4 had marked QT prolongation, with bundle branch block or torsade de pointes, and one, who was thought to have ingested between 16 and 24 g, died after cardiac arrest.

- Tracqui A, et al. Amisulpride poisoning: a report on two cases. Hum Exp Toxicol 1995; 14: 294–8.
   Isbister GK, et al. Amisulpride deliberate self-poisoning causing
- severe cardiac toxicity including QT prolongation and torsades de pointes. *Med J Aust* 2006; **184:** 354–6.

Pregnancy. For comments on the use of some atypical antipsychotics during pregnancy, see under Precautions of Clozapine, p.983.

#### Interactions

Amisulpride should not be given with drugs that may induce arrhythmias (including torsade de pointes); such drugs include some antiarrhythmics, cisapride, thioridazine, erythromycin, and halofantrine. The risk of arrhythmias is also increased with drugs that prolong the QT interval, such as pimozide, haloperidol, and tricyclic antidepressants, and with drugs that produce bradycardia or hypokalaemia, including beta blockers, some calcium-channel blockers, clonidine, digoxin, guanfacine, potassium-depleting diuretics, and lithium; use of these drugs with amisulpride requires caution.

The central effects of other CNS depressants including alcohol may be enhanced by amisulpride. Amisulpride may also enhance the effects of antihypertensive drugs. The dopamine-blocking activity of amisulpride may antagonise the actions of dopaminergics such as levodopa and they should not be given together.

 $\Diamond$  In 7 patients receiving a misulpride, introduction of  $\emph{lithium}$  resulted in an average increase of 32% of the dose-corrected plasma concentration of amisulpride. An earlier study had noted that plasma concentrations of amisulpride were raised in patients also taking clozapine.2

- 1. Bergemann N, et al. Increase in plasma concentrations of amisulpride after receiving co-medication with lithium. Pharmacopsychiatry 2005; 38: 44.
- 2. Bergemann N, et al. Plasma amisulpride levels in schizophrenia schizoaffective disorder. Eur Neuropsychopharmacol 2004;

### **Pharmacokinetics**

Amisulpride is absorbed from the gastrointestinal tract but bioavailability is reported to be only about 48%. An initial peak in plasma concentration has been reported to occur 1 hour after oral doses and a second higher peak after 3 to 4 hours. Plasma protein binding is reported to be only about 16%. Metabolism is limited, with most of a dose appearing in the urine as unchanged drug. The terminal elimination half-life is about 12 hours.

 Rosenzweig P. et al. A review of the pharmacokinetics, tolerability and pharmacodynamics of amisulpride in healthy volunteers. Hum Psychopharmacol 2002; 17: 1-13.

#### **Uses and Administration**

Amisulpride is a substituted benzamide atypical antipsychotic. It is reported to have a high affinity for dopamine D2 and D3 receptors. Amisulpride is used mainly in the management of psychoses such as schizophrenia but in some countries it has also been tried in depression (p.373).

For acute psychotic episodes in adults and adolescents aged 15 years and over a daily dosage of between 400 and 800 mg may be given orally in 2 divided doses, increased if necessary to 1200 mg daily. For patients with mainly negative symptoms, daily doses between 50 and 300 mg are recommended. Daily doses of up to 300 mg may be given as a single dose. Amisulpride has also been given by intramuscular injection in doses of 400 mg daily.

Administration in renal impairment. For patients with renal impairment, the oral dose of amisulpride should be reduced according to creatinine clearance (CC):

- · CC between 30 and 60 mL/minute, half the usual dose
- · CC between 10 and 30 mL/minute, one-third the usual dose Similar reductions are also recommended when amisulpride is given intramuscularly.

Schizophrenia. Reviews<sup>1,2</sup> of amisulpride indicate that it may be more effective than classical antipsychotics against general and negative symptoms of schizophrenia (p.955), and has fewer extrapyramidal adverse effects.

- 1. Leucht S, et al. Amisulpride, an unusual "atypical" antipsychotic: a meta-analysis of randomized controlled trials. Am J Psychiatry 2002; 159: 180-90.
- 2. Mota Neto JIS, et al. Amisulpride for schizophrenia. Available in The Cochrane Database of Systematic Reviews; Issue 2. Chichester: John Wiley; 2002 (accessed 24/05/05).

Proprietary Preparations (details are given in Part 3)

Arg.: Enorder, Austral.: Solian, Austrian: Majorem, Solian, Belg.: Solian, Braz.: Socian, Chile: Socian, Cz.: Deniban, Solian, Denm.: Solian, Fr.: Solian, Gh.: Solian, Gh.: Solian, Hung.: Amiprid, Amitrex, Irl.: Solian, Gr.: Solian, Hung.: Amiprid, Amitrex, Irl.: Solian, Irl.: Solian, Irl.: Solian, Irl.: Solian, Irl.: Solian, Mex.: Solian, Morw.: Solian, Mar.: Solian, Mar.: Solian, Irl.: Sol

# Amobarbital (BAN, rINN)

Amobarbitaali; Amobarbitál; Amobarbitalis; Amobarbitalum; Amylobarbitone; Pentymalum. 5-Ethyl-5-isopentylbarbituric acid. Амобарбитал

 $C_{11}H_{18}N_2O_3 = 226.3$ CAS - 57-43-2. ATC — N05CA02. ATC Vet - QN05CA02.

NOTE. The following terms have been used as 'street names' (see p.vi) or slang names for various forms of amobarbital: Amys; Birds; Blue; Blue angels; Blue birds; Blue bullets; Blue clouds; Blue devils; Blue dolls; Blue heaven; Blue heavens; Blues.

Pharmacopoeias. In Chin., Eur. (see p.vii), and Jpn.

Ph. Eur. 6.2 (Amobarbital). A white or almost white, crystalline powder. Very slightly soluble in water; freely soluble in alcohol; soluble in dichloromethane. Forms water-soluble compounds with alkali hydroxides and carbonates and with ammonia.

## Amobarbital Sodium (BANM, rINNM)

Amobarbitaalinatrium; Amobarbital sódico; Amobarbital sodique; Amobarbital sodná sůl; Amobarbitalio natrio druska; Amobarbitalnatrium: Amobarbitál-nátrium: Amobarbitalum natricum: Amylobarbitone Sodium: Barbamylum: Natrii Amobarbitalum: Pentymalnatrium; Sodium Amobarbital; Soluble Amylobarbitone. Sodium 5-ethyl-5-isopentylbarbiturate.

Натрий Амобарбитал  $C_{11}H_{17}N_2NaO_3 = 248.3$ CAS — 64-43-7. ATC — N05CA02. ATC Vet - QN05CA02.