research records through the "Report on the Progress of Pharmacy." Instruction in bibliochresis should be made a part of every curriculum in pharmacy. The college library should not be considered as a show place, but as a work room for every student in which he is taught how to use the valuable reports of workers in this and collateral fields.

Some schools with rich equipment and teachers individually of national note will continue to turn out students of mediocre grade, while others, sometimes apparently less favored will furnish leaders to the profession the country over. Such school spirits are not created over night by a board of trustees, but come from the inspiration of one man or a group of kindred spirits who keep their students welded into such a body that men separated in school by ten or more years feel instantly called to each other. The work and spirit of the school as a whole determine whether its educational pattern is one that leads to research success in pure science or in industry.

August 13, 1932.

COMMITTEE REPORTS

A PROPOSED STANDARD TABLE OF POISONS.*

Because of the impossibility of framing a definition for poison which will serve as an accurate guide in every case, and also because of the unsatisfactory condition of many state poison laws, The National Drug Trade Conference has undertaken the preparation of a reference list of drugs and chemicals which should properly bear the poison label when dispensed otherwise than upon the prescriptions of physicians.

The tentative list presented in the following pages is admittedly imperfect, and is submitted with the express purpose of eliciting comment and criticism.

Suggestions are desired as to the addition of agents not included in the list, the exclusion of some which are now included, criticism of the various degrees of concentration proposed, or comments regarding any other phase of the subject.

After revision, with the aid of the comments which are expected to be received, copies of the revised list will be presented to all of those who have responded to this request.

Comments may be sent to the secretary of The National Drug Trade Conference,

E. F. KELLY,
10 West Chase Street, Baltimore.

NEED FOR A STANDARD LIST OF SUBSTANCES TO BEAR POISON LABEL.

The need for a generally accepted, or "standard" list of substances which should bear a poison label when dispensed is found in the fact that it is practically impossible to propose a definition of poison that will serve as a sufficient guide under all circumstances. The following attempted definitions from various authorities will make this evident.

Standard Dictionary.—"Any substance that when taken into the system acts in a noxious manner by means not mechanical, tending to cause death or serious injury to health."

Webster's New International Dictionary.—"Any agent which, introduced into the animal organism, may produce a morbid, noxious or deadly effect."

Bouvier's Law Dictionary.—"A substance of definite chemical composition, which when taken into the living organism is capable of causing impairment or cessation of function."

The Encyclopedia of Law.—"Any substance which when taken, applied to the body ex-

* Report of the Committee on Potent and Toxic Drugs of The National Drug Trade Conference.

ternally or in any way introduced into the system, is capable, without acting mechanically, but by its own inherent qualities, of destroying life."

All of the above and dozens of other definitions which might be cited are constructed upon the theory that drugs and chemical compounds can be divided into those which are distinctly poisonous and those which are distinctly non-poisonous. Unfortunately this is not true, and there is scarcely a known substance soluble in the body fluids which will not under certain circumstances "cause death or serious injury to health," or which may not "produce a morbid, noxious or deadly effect."

Dosage is always a controlling element. The same substance may be a useful food stuff, a comparatively harmless medicine or a toxic agent according to the amount taken into the body at one time. The method of ingestion is likewise of importance, since numerous substances harmless when taken into the stomach may react dangerously when inhaled, or when injected directly into the circulation.

To consider all such substances poisons would require the placing of a poison label upon such common articles as table salt, vinegar, pepper, mustard, capsicum, cloves, epsom and Glauber salts, quinine sulphate and a host of other commonly used articles that, under ordinary circumstances are harmless, but which in excessive amounts or when improperly used may occasion serious injury or even death.

To meet the troublesome matter it is sometimes attempted by statute to define a poison by specifying the dangerous or toxic dose. Thus a Pennsylvania statute prescribes that a poison, "shall be any drug, chemical or preparation which, according to standard works on medicine or materia medica, is liable to be destructive to adult human life in quantities of sixty grains or less."

Some objections to such a definition are:

1. That it does not specify what shall be considered "standard works on medicine or materia medica."
2. That numerous works which might properly be considered as standard authorities frequently do not state the toxic doses of many of the substances of which they treat.
3. That there is frequently wide variation in the toxic doses of the same substances as stated in works by different authors.
4. That many dangerously toxic substances used in the arts are not described in works on medicine and materia medica.

USE OF INDEFINITE GENERAL TERMS OBJECTIONABLE.

Occasionally a poison label statute, after designating a list of substances to have the poison label, concludes with some indefinite general phrase such as "all other poisonous alkaloids and their salts," "all other virulent poisons," "all other substances belonging to the class commonly known as poisons," or other similar phraseology. Such indefinite general terms are objectionable, since, as we have seen, nearly all drugs and medicines are capable of acting poisonously in excessive doses or under certain conditions.

Since it is apparently impossible to devise general definitions to serve as a safe guide in the labeling of poisons, the only alternative seems to be the preparation of a list of substances which, in the opinion of experienced pharmacists, pharmacologists and physicians should bear the poison label when dispensed otherwise than upon the prescriptions of qualified physicians.

Such an attempt is presented in the following pages. It should be kept in mind that the list submitted is to be regarded as provisional or tentative, and is proposed with the object of calling forth suggestions for its improvement.

GENERAL PRINCIPLES.

In the opinion of the committee the following general principles should prevail in the selection of a list of the agents which should bear the poison label, and also of the conditions under which such label may with safety be omitted.

Public Interest Must Govern.—The sole purpose of the poison label is to protect the public health from injury through the improper use of toxic drugs, either by misadventure or criminal design, and to such public purpose all other interests must yield, regardless of trade customs or usages to the contrary.

Warning of Poison Label Should Not Be Weakened by Excessive Use.—The warning effect of the poison label should not be weakened by promiscuous use upon any and all substances which may prove injurious when taken in excessive quantities. If, for example, the poison label were to be placed upon common salt, nutmeg, black pepper, etc., which have been known to produce fatal results in excessive quantities, its warning effect would be gradually weakened until it would cease to be effective when used upon such truly dangerous substances as phenol and mercury bichloride. Such a lessening of the effectiveness of the poison label obviously would not be for the public benefit, and the use of the poison label should, therefore, be confined to cases where a warning of the dangerous character of the substance will serve a really useful and necessary purpose.

Simple and Compounded Drugs and Chemicals.—Toxic drugs and chemicals dispensed in undiluted form may be in a different category than when compounded with other and non-toxic ingredients. While it is clear that a salt of strychnine dispensed as such should always bear the poison label, it would obviously be absurd to require such label upon Elixir of Iron, Quinine and Strychnine, in which the percentage of the stronger alkaloid is so low as to make the toxic qualities of the preparation negligible.

It follows, therefore, that compound preparations should bear the poison label only when the content of toxic drug is in such proportion as to render the combination dangerous as such.

REGISTRATION OF SALE AND USE OF RED LABEL.

Numerous poison label statutes divide their included agents into two schedules, A and B, according to their toxicity. In such case it is customary to require registration of the sale of the agents included in the more toxic schedule, or which are especially liable to be used for criminal purposes. Sometimes also, it is required that the labels of such agents be printed or written in red ink.

In the following table the red label is indicated for the more toxic substances, and the registration of sale for those most likely to be employed as homicidal agents or for other unlawful use, as abortifacients, though all are included in a single alphabetical list.

Drugs Dispensed on the Prescriptions of Physicians and Dentists.—Drugs and medicines dispensed on the prescriptions of physicians or dentists should not bear the poison label, unless the prescriber shall expressly direct that such label be attached.

Preparations dispensed as prescriptions intended for external use only but which might act harmfully if taken internally, may be labeled "for external use," "not to be taken internally," or with some equivalent language to emphasize their purpose for external application.

Preparations Dispensed on Veterinarian Prescriptions.—Preparations dispensed on the prescriptions of legally qualified veterinary physicians, and which might produce harmful results if administered to human patients, should be labeled either "not for human use," or "for veterinary use only."

Character of the Poison Label.—To accomplish its purpose the word POISON should be conspicuous, and hence should not be made obscure through the use of ornamental type or by being printed on a confusing background.

The size of type will to some extent be governed by the size of the label, but it should always be large enough to be perfectly distinct.

For these reasons the word POISON should be printed in uncondensed gothic capital letters, preferably larger than, but at least as large as any other letters on the label, and should be printed on a plain back-ground in ink of distinctly contrasting color.

To distinguish between moderately poisonous agents and those which should be regarded as especially dangerous, the labels of the latter should be printed in red ink. The names of such substances are indicated in the accompanying table.

In emergency when printed labels are not available, written labels should correspond to the same rules as to relative size of letters and color of ink.

The names of antidotes and the antidotal measures should appear immediately under the word POISON, and should be plainly legible.

The following is a form of poison label which has been approved by the department of the Federal Government which has in charge the administration of the Federal Caustic Poisons Act.

NITRIC ACID

POISON

ANTIDOTES:—INTERNAL—Drink a teaspoonful or more of Magnesia, Chalk, Whiting or Wall Plaster, or small pieces of Soap softened with water, in Milk, Mucilage or White of Raw Eggs.
EXTERNAL—Wipe off the acid gently, immediately flood the surface with water, using soap freely, then cover with moist Magnesia or Baking Soda. **Call a Doctor.**

PROPOSED TABLE OF DRUGS, CHEMICALS AND PREPARATIONS WHICH SHOULD BE DISPENSED WITH THE POISON LABEL.

In keeping with the above provisions, and except as otherwise noted, the following drugs, chemicals and preparations should bear the poison label:

1. When not dispensed in pursuance of the prescriptions of physicians, dentists or veterinarians.

2. When dispensed in the undiluted or uncompounded condition, or if compounded, when the degree of concentration of the toxic ingredients equals or exceeds the limit of concentration specified in the table.

Acetone: In concentration of 10%. Red label.

Acid: Carbolic, see Phenol.

Acids: Hydrocyanic, hydrofluoric and hydrosilicofluoric in all concentrations. Red label. Sales to be registered.

Glacial, mono-, di- and trichloracetic acids, and anhydride, hydrochloric, hypochlorous, hydrobromic, hypophosphorous, phosphoric (glacial or metaphosphoric, orthophosphoric), oxalic and sulphuric, in concentrations of 10%.

Picric and nitric, in concentrations of 5%.

Aconite: Root, leaves and all preparations, and aconitine, in all concentrations. Red label. Sales to be registered.

Alcohol, Ethyl: When denatured with wood alcohol, in concentration of 20%.

Amylic: In concentration of 5%.

Methyl or Wood: In concentration of 10%. Red label.

Alkaloids and Salts:

Aconitine, in all concentrations.
Atropine, in all concentrations.
Brucine, in concentration of $^1/_{10}$%.
Cocaine, governed by Federal Anti-Narcotic Law. See Coca Leaves.
Codeine. See opium alkaloids.
Colchicine, in concentration of 1%.
Coniine, in concentration of $^1/_{10}$%.
Daturine, in concentration of $^1/_{10}$%.
Delphinine (staphisagrine), in concentration of $^1/_{10}$%.
Dionine. See opium alkaloids.
Gelseminine, in concentration of 1%.
Hyoscine, in all concentrations.
Hyoscyamine, in all concentrations.
Lobeline, in all concentrations.
Morphine. See opium alkaloids.
Opium alkaloids, salts and compounds. Sale governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Narceine. See opium alkaloids.
Narcotine. See opium alkaloids.
Nicotine, in concentrations of 1%.
Physostigmine, in concentration of 1/10%.
Sabadine, in concentration of 1/10%.
Scopolamine, in concentration of 1/10%.
Sparteine, in concentration of 1%.
Staphisagrine. See Delphinine.
Strychnine, in concentration of 1/10%.
Thebaine. See opium alkaloids.
Veratrine, in concentration of 1/10%.

Ammonium: Hydroxide, chromate, dichromate, fluoride, oxalate, picrate, in concentrations of 5%.

Amyl Nitrite: In all concentrations. Red label.

Aniline Oil: In all concentrations. Red label.

Antimony: All compounds including tartar emetic in concentration of 5%, except sulphide.

Apomorphine: Sale governed by Federal Narcotic Act.

Arsenates and *Arsenites:* In concentrations of 1%. Red label.

Arsenic: Metallic or elemental, and all compounds and preparations, in concentrations of 1%. Red label. Sales to be registered.

Arsphenamine: Should be dispensed only on prescription.

Ascaridol: Should be dispensed only on prescription.

Atropin (resinoid) and *Atropine* (alkaloid): Should be dispensed only on prescription.

Barium: All salts, compounds and preparations except barium sulphate.

CAUTION: Barium sulphate should not be confused with the *sulphide*, which is very poisonous when taken internally. The names of these should *not* be abbreviated on labels or in prescriptions.

Belladonna: Leaves, root and all compounds and preparations, atropin (resinoid) and atropine and its salts in all concentrations. Red label.

Benzaldehyde: Natural or synthetic, in concentration of 2%. Red label.

Benzene or Benzol: In concentration of 10%.

Bromine: Elemental or liquid, and chloride, in concentrations of 2%.

Bromoform: In concentration of 10%.

Brucine: In concentration of 1/10%. Red label.

Cacodylates: In all concentrations. Red label.

Calabar Bean: See Physostigma.

Calcium: Arsenate and arsenite, in concentrations of 1%. Red label.

Cannabis: Crude drug and all preparations in concentrations of 10%.

Cantharides: Powder, and all preparations in concentrations of 2%. Red label. Sales to be registered.

Carbon Disulphide: In concentration of 5%.

Carbon Tetrachloride: In concentration of 10%.

Chloral Hydrate: In concentration of 10%. Should be dispensed only on prescription.

Chloroform: In concentration of 10%.

Chromium: All salts, compounds and preparations, in concentrations of 5% and over.

Cobalt: All salts, compounds and preparations in concentrations of 5%.

Coca: Coca leaves, cocaine, salts and derivatives—sales governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Cocaine: See Coca.

Cocculus Indicus or Fish-berry: Crude drug and preparations, and picrotoxin in all concentrations. Red label. Sales to be registered.

Codeine: Governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Colchicum: Corm and preparations in concentrations of 5%. Colchicine, in concentration of 1%. Red label.

Collodium: Blistering, cantharidal, in all concentrations.

Coniine: See Conium.

Conium: Fruit, leaves and all preparations in concentrations of 5%. Coniine and salts in concentration of $^1/_{10}$%. Red label.

Copper: All salts, compounds and preparations, in concentrations of 5%, *except* oleate, oxide, palmitate, phosphate, resinate, selenate, silicofluoride, stearate and sulphide.

Creosote: From wood or coal tar, in concentrations of 10%. Red label.

Cresol: Cresol and creolin, in concentrations of 10%.

Croton: Seeds, croton oil and crotin in concentrations of 1%. Red label. Sales to be registered.

Curare: Crude drug, derivatives and preparations in all concentrations. Red label. Should be dispensed only on prescription.

Cyanides: In all concentrations. Red label. Sales to be registered.

Datura: Seeds, leaves and preparations in concentrations of 5%. Daturine and salts in concentrations of $^1/_{10}$%. Red label. See also Stramonium.

Delphinine: See Staphisagria.

Derris and Rotenone: In concentrations of 5%.

Digitalis: Leaves and all compounds and preparations in concentrations of 5%. Digitalein and digitalin in concentrations of 1%. Red label.

Dionin: Sales governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Dover's Powder: Sales governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Ether, Ethyl: In concentration of 10%.

Ethyl Chloride: In concentration of 5%. Red label.

Ethyl Cyanide: In all concentrations. Red label. Sales to be registered.

Euphorbium: Gum resin and preparations in concentrations of 10%.

Fluorides: When soluble in water, in concentrations of 5%. Red label.

Formaldehyde: In concentrations of 5%.

Gamboge: In concentration of 5%.

Gelsemium: Root and preparations, in concentrations of 5%. Alkaloids and salts in concentrations of 1%. Red label.

Hellebore: Black, White, Green, and preparations in concentrations of 5%. Red label.

Homatropine and Salts: In concentrations of 1%. Red label.

Hyoscyamus: Leaves, root and preparations in concentrations of 5%. Hyoscyamine, hyoscine and salts in all concentrations. Red label.

Ignatia: Bean and preparations in concentration of 5%. Red label.

Iodine: Elemental or metallic, mono- and tribromide, mono- and trichloride and preparations, in concentrations of 2%. Red label.

Larkspur: Seed and preparations in concentrations of 5%. Red label.

Lead: All salts, compounds and preparations, in all concentrations except pigments ground in oil. Red label.

Lobelia: Herb and preparations in concentrations of 5%. Lobeline and salts in all concentrations. Red label.

Mercury: All salts, compounds and preparations in concentrations of 1%. Red label. Sales of bichloride and nitrate to be registered. *Exceptions:* metallic mercury, calomel, black and red sulphides, mercury with chalk, mass of mercury.

Methyl Alcohol: In concentration of 10%. Red label.

Mezereum: Bark and preparations, in concentrations of 10%.

Morphine, Alkaloid and Salts: Sale governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Narceine and Narcotine: Sale governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Neoarsphenamine: Should be dispensed only on prescription.

Nicotine: Alkaloid and all salts and solutions in concentrations of 1%. Red label.

Nitrobenzene (Oil of Mirbane): In concentrations of 5%. Red label.

Nux Vomica: Crude drug and preparations in concentrations of 1%. Strychnine and salts, brucine and salts, in concentrations of $^1/_{10}$%. Red label. Sales to be registered.

Oil of Bitter Almond: Natural or artificial, in concentrations of 2%. Red label. Sales to be registered.

Croton: In concentration of 1% and over. Red label. Sales to be registered.

Mustard, Artificial: In concentration of 1%. Red label. Sales to be registered.

Pennyroyal: In concentrations of 5%. Red label. Sales to be registered.

Savin: In concentration of 5%. Red label. Sales to be registered.

Tansy: In concentration of 5%. Red label. Sales to be registered.

Opium: Crude drug, all derivatives, preparations, alkaloids and salts. Sale governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Paraldehyde: In concentration of 5%.

Phenol (Carbolic Acid): In concentration of 5%. Red label. Sales to be registered.

Phosphorus, Yellow, and *Phosphides:* In all concentrations. Red label.

Physostigma (Calabar Bean): Crude drug and all preparations, in concentrations of 2%. Physostigmine and salts, in concentration of $^1/_{10}$% and over. Red label. Sales to be registered.

Phytolacca: Crude drug and preparations, in concentrations of 10%.

Picrotoxin: See Cocculus.

Poke Root: See Phytolacca.

Potassium: Chromate and dichromate, ferricyanide (red prussiate), ferrocyanide (yellow prussiate) oxalates—acid, neutral and tetroxalate, permanganate, sulphocyanate, tartar emetic, in concentrations of 10%. Red label.

Arsenate and arsenite, in concentrations of 1%.

Cyanide in all concentrations. Red label. Sales to be registered.

NOTE: Potassium ferrocyanide, (yellow prussiate) is said to be non-poisonous when pure, but as it may release hydrocyanic acid when in contact with other acids it should bear a poison label.

Potassium Carbonate: In concentrations of 10%.

Hydroxide or *Hydrate:* In concentration of 5%.

Pyrogallol, Pyrogallic Acid: In concentration of 5%.

Rhus Toxicodendron: Crude drug and preparations in concentrations of 1%. Red label.

Sabadilla, Cevadilla: Drug and preparations in concentrations of 5%.

Sabadine: Alkaloid and salts in concentrations of $^1/_{10}$%. Red label. Sales to be registered.

Scopola: Drug and preparations in concentrations of 5%. Scopolamine and salts in concentrations of $^1/_{10}$%. Red label.

Silver: Arsenite, nitrate, sulphate, in concentrations of 1%. Red label.

Sodium: Arsenate, arsenite, carbolate, chromate, dichromate, ferricyanide, fluoride, oxalate, sulphocyanate, in concentrations of 1% and over. Cyanide, in all concentrations. Red label.

Sodium: Metallic and sodium amalgam, hydroxide, hydrate or caustic soda, ethylate, sulphide, in concentrations of 5% and over. Red label.

Solanum: Drug and preparations in concentrations of 5%. Red label.

Sparteine: Alkaloid and salts in concentrations of 1%. Red label.

Spirit of Nitroglycerin (Glonoin): In concentration of 1%. Red label.

Spirit of Phosphorus: In concentration of 1%. Red label.

Squill: Drug and preparations in concentrations of 10%.

Staphisagria: Crude drug and preparations in concentrations of 5%. Delphinine or staphisagrine in concentrations of $^1/_{10}$%. Red label.

Stramonium: Crude drug and preparations in concentrations of 5%. Red label.

Strophanthus: Crude drug and preparations in concentrations of 5%. Strophanthine and salts in concentrations of $^1/_{10}$%. Red label. Sales to be registered.

Strychnine: All salts and compounds in concentrations of $^1/_{10}$%. See also Nux Vomica. Red label. Sales to be registered.

Tansy: Volatile Oil, in concentration of 5%. Red label. Sales to be registered.

Tetrachloroethylene: In concentration of 10%.

Thallium: Acetate, chloride, hydroxide, nitrate, sulphate, in concentrations of 1%. Red label.

Thebaine: Sale governed by Federal Anti-Narcotic Law. Should be dispensed only on prescription.

Tin: Stannous and stannic bromides and chlorides in concentrations of 5%. Red label.
Trinitrophenol: See Picric Acid.
Uranium: Acetate, nitrate, sulphate, in concentrations of 5%. Red label.
Veratrine: Alkaloid and salts in concentration of 1%.
Veratrum Viride: Drug and preparations in concentrations of 5%. Red label.
Water, Ammonia: In concentration of 5%. Red label.
Zinc: Acetate, bromide, chloride, nitrate, sulphate, in concentrations of 5%. Red label.

Respectfully submitted,

Committee on Potent and Toxic Drugs.
A. G. DuMez
S. L. Hilton
Robt. L. Swain
A. C. Taylor
J. H. Beal, *Chairman.*

NATIONAL CONFERENCE ON PHARMACEUTICAL RESEARCH.—COMMITTEE NO. 1.

PHARMACEUTICAL DISPENSING.

REPORT FOR YEAR ENDED MAY 31, 1932.

BY WILLIAM J. HUSA, CHAIRMAN.

During the year a number of interesting and valuable contributions dealing with various phases of dispensing pharmacy have appeared in the literature.

Opthalmic Ointments.—In a recent English article (1) the preparation of opthalmic ointments containing alkaloids or alkaloidal salts was discussed. These are usually made by one of four different methods, each of which has some advantages and some disadvantages. In the first method, the free alkaloid is dissolved directly in the fatty base with aid of heat. The disadvantage of this method arises from the use of heat, which may decompose the alkaloid or form a saturated solution at a higher temperature which will crystallize on cooling. The second method involves the preparation of a neutral alkaloidal oleate, which is then mixed with the fatty base. Here again the heat used in making the oleate may cause decomposition. In the third method, a readily soluble alkaloidal salt is dissolved in a very small quantity of water and this solution is incorporated in the base. The chief disadvantage of this process is that water may evaporate from the ointment on standing, with formation of crystals of the alkaloidal salt. In the fourth method the finely powdered alkaloidal salt is mixed with the ointment base; by this method it is difficult to obtain an ointment that is really as free from gritty particles as would be desired.

The method proposed for the new British Pharmacopœia involves the use of a base composed of equal parts of yellow soft paraffin and wool fat, the mixed fats being filtered while hot and then sterilized at 150° C. for one hour. The alkaloidal salt is dissolved in the smallest possible quantity of distilled water, the melted base is added and the mixture triturated until cold.

Lascoff (2) suggested that an opthalmic prescription calling for 5% of argyrol in vaseline should be filled by dissolving the argyrol in the minimum amount of water, taking this up with a small amount of lanolin and incorporating in the vaseline.

Insolubility of Pills.—In a French journal, Henri Griffon (3) reported that a person swallowed 100 granules, each containing 1 mg. of strychnine sulphate; after 3 hours, 25 granules were recovered intact by washing the stomach, along with 15 partially disintegrated granules. Similar reports have appeared at various times, indicating that sometimes pills and tablets will not dissolve or disintegrate due to some defect in the coating or method of manufacture, or due to hardening on long storage. Griffon recommends that tests be made in artificial gastric and pancreatic juices to determine whether or not disintegration takes place.

In this connection, two Danish pharmacists have reported (4) that pills or tablets made with agar-agar disintegrate more quickly than with other excipients. In this case dilute alcohol is used as a moistening agent.