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1. INTRODUCTION

From time to time during the course of several years the Soil Survey and Fertility Branch of FAO have been asked to advise on the supply of equipment for the soils laboratories of several member countries. These requests have ranged through all types of soils work but in general the emphasis has been on Soil Chemistry laboratory equipment and Chemicals.

To a great extent the basic equipment needs of soil analysts are standard items. Generally speaking, little variation in equipment is required to analyze regardless of either soil group or region. Also the variation as between suppliers is small. Therefore it is possible to make an equipment and chemicals list required for a soils laboratory regardless of location provided the necessary ancillary services are available.

A standard list saves considerable tedious work every time a new laboratory is established or an old one is refurnished. It avoids omissions which inevitably occur when equipment lists are prepared from catalogues. It permits a quick estimate of costs as these can be quickly jotted down beside the required items of the standardized list. Last but not least a carefully prepared equipment list gives guidance to FAO member countries which have not had experience with this type of purchase.

It is necessary to emphasize that this publication is not an attempt to standardize soils laboratory equipment. Rather it is an effort to assemble standard information in an easily available and useable form. All the items listed are not required for every soil laboratory; many of the items can be used for more than one technique of analysis. Items and quantities must be adjusted according to the sample and analytical requirements; even personal preference may modify the equipment list of any one laboratory.
2. General Layout of the Lists
2. GENERAL LAYOUT OF THE LISTS

The itemized "Lists of General Equipment" are divided into six sections as follows:

Section 3A - Chemicals Codes 001 to 499
Section 3B - Glassware and Porcelain " 500 to 799
Section 3C - Polythene and Plastic ware " 800 to 899
Section 3D - Sundries " 900 to 1099
Section 3E - Large Equipment (including spare parts) " 1100 to 1299

There are two sections for specialized material:

Section 4. - Special Equipment for Soil Physics Codes 1300 to 1499
Section 5. - Special Equipment for soil Microbiology Codes 1300 to 1499

The items listed under these Sections are only likely to be necessary when soil physical and microbiological determinations are to be carried out.

Section 6. - List of Suppliers

The estimates of requirements, except for Sections 4, 5 are based on quantities for the analysis of approximately 10,000 samples over a period of two years, viz. 5,000 samples per year. The analysis includes the determinations of particle size distribution (mechanical analysis), pH, conductivity, organic matter, nitrogen, calcium carbonate equivalent, gypsum requirement, soluble ions or salts in saturation extract, exchange capacity, exchangeable Ca, Mg, K, Na, H, free iron oxide, elemental analysis, etc. Sufficient supplies will also be available for the analysis of a limited number of rock, fertilizers, water and plant samples.

There will, of course, be a considerable variation in the methods of analysis used in different laboratories and changes will be necessary in the lists to allow for individual laboratory variations.

Under the heading "Possible source" the following codes are used: X equals the item that can normally be bought from most good laboratory suppliers. X (US) equals the item that can be bought at any good laboratory furnisher in the United States of America. When reference is made to a number, a specific source of supply is mentioned and can be found under 6, List of Suppliers. This is done in order to facilitate the procurement of items not normally universally available and it does not imply that this is the only source of supply.

The lists do not include items which are not regularly stocked by the suppliers and must be ordered.

The minimum basic stock of any items of chemicals, glassware or small equipment, including spares for instruments is half the quantity listed. It follows therefore that a periodic inventory of stocks should be made and a replenishment stock of half the above quantities ordered when the stock has been used down to about half the quantity listed.

For example, the amount of Sulphuric Acid (Analytical Grade) ordered on this list is 220 liters. When this initial stock reaches a level of approximately 110 liters by use, a new order for 110 liters should be placed. Similarly, the original quantity of 20 cc. burettes ordered is 10. When the stock is reduced to about 5, then another 5 should be ordered. This applies to almost all items in sections 3A to 3D and also to spares for instruments listed under section 3E. For the larger items, instruments, etc. under section 3E, the problem of continued supply is overcome by providing an adequate quantity of spare parts. The inventory check should take place at least every 12 months but preferably every 6 months. A system such as this is essential in any laboratory but even more so when the laboratory is situated far from the normal sources of supply.
3. Lists of General Equipment
Section 3A - Chemicals

All items listed are to be of high grade analytical quality, except for items specifically marked "Technical", in which case somewhat lower standards are acceptable.

Chemicals of the desired quality are obtainable from a number of sources. However, the necessity of buying chemicals from a reliable supplier cannot be too strongly emphasized. Normal commercial grades of laboratory chemicals, though cheaper, are often quite useless for soil analytical work.

For certain items, e.g. Complexone and related materials, a specific source of supply is mentioned. In these instances, it is recommended that supplies be obtained from the sources mentioned.

Section 3B - Glassware and Porcelain

Most of the items in this section are standard and can be found at any laboratory suppliers. Trade names are generally not given as there are usually several suitable makes of any particular item. Thus, borosilicate glass could be Pyrex, Hysil, Jena or any of several other makes while porcelain could be Doulton, Sillax, etc.

Descriptions are taken from a variety of sources, which are mentioned only when the item is such that it is unlikely to be found in nearly all suppliers.

Section 3C - Polythene

Several sources of supply are available and suitable.

Section 3D - Sundries

Items listed are almost all universally obtainable.

Section 3E - Large Equipment

Many items here are mentioned by name. In general, the item described is that having the minimum suitable specification. In many instances, other suitable makes are available which will be equally good for the work in question and several of these alternatives are listed. Generally speaking, the items mentioned as alternatives in this list are more expensive though in several instances they will carry out work which is not possible with the corresponding item specified.

Sources of supply are nearly all quoted in this section.

Section 4 - Specialized Equipment for Soil Physics

A Survey carried out recently by FAO, Brogan (1965), shows that only a small percentage of soil laboratories include physical analysis in their routine work, exception is made to the particle size distribution (mechanical analysis), which is nearly always used in all soils laboratories. The determinations most currently worked out are bulk density, structure, and moisture retention at different pressures. These and some other physical determinations are, however, very important in soil studies, being increasingly applied. The inclusion in this publication of a section regarding soil physics was considered useful. The proposal is to provide information on the specialized equipment for the establishment of a soil physics laboratory including those items required for the more common determinations, and some others which may be required for some special analysis. When making the list it was assumed that some basic equipment to be found in any normal laboratory, or enumerated under Section 3, General Equipment, would be available.
In many cases more than one item is mentioned for the same determination, to allow the choice of the most suitable for the particular purpose.

Section 5 - Specialized Equipment for Soil Microbiology

Of the different branches of soil sciences, soil microbiology often is neglected or is the last to receive attention. This neglect is not justified particularly since soil microorganisms and their activities are basic to a fertile soil. They have the very important role of decomposing organic matter and releasing in available form a large part of many of the elements necessary for plant nutrition. They also have the unique ability to fix atmospheric nitrogen biologically in significant amounts.

This publication contains a basic list of the equipment and chemicals that are required for routine microbiological studies and ordinary research work. Elaborate research problems might require additions to the list. The items listed do not include the chemical glassware and equipment that is necessary for the chemical determinations that are a part of nearly every microbiological study. It is assumed that these items can be drawn from chemical stores as needed, particularly as every soil microbiology laboratory is either connected with a chemical analytical laboratory or has a section for this side of the work.
3A. Chemicals
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Acetic Acid, 99-100 percent</td>
<td>50 l</td>
<td></td>
</tr>
<tr>
<td>002</td>
<td>Acetone</td>
<td>10 l</td>
<td></td>
</tr>
<tr>
<td>003</td>
<td>Alizarin</td>
<td>25 g</td>
<td></td>
</tr>
<tr>
<td>004</td>
<td>Aluminium, metal, foil</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>005</td>
<td>Aluminium, powder, fine</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>006</td>
<td>Aluminium ammonium sulphate</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\text{Al}_2(\text{SO}_4)_3 \cdot (\text{NH}_4)_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>007</td>
<td>Aluminium Chloride</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>008</td>
<td>Aluminium oxide</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td>009</td>
<td>Aluminium sulphate</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\text{Al}_2(\text{SO}_4)_3 \cdot 18\text{H}_2\text{O}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>010</td>
<td>Aluminon</td>
<td>25 g</td>
<td></td>
</tr>
<tr>
<td>011</td>
<td>1-Amino-2-Naphtol-4-Sulphonic acid</td>
<td>25 g</td>
<td></td>
</tr>
<tr>
<td>012</td>
<td>Ammonium acetate</td>
<td>200 kg</td>
<td></td>
</tr>
<tr>
<td>013</td>
<td>Ammonium carbonate</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$(\text{NH}_4)_2\text{CO}_3 \cdot \text{H}_2\text{O}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>014</td>
<td>Ammonium carbonate, acid (bicarbonate)</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td>015</td>
<td>Ammonium chloride</td>
<td>5 kg</td>
<td></td>
</tr>
<tr>
<td>016</td>
<td>Ammonium citrate, di-</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td>017</td>
<td>Ammonium fluoride</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td>018</td>
<td>Ammonium hydroxide, sp. gr. 0.88</td>
<td>120 l</td>
<td></td>
</tr>
<tr>
<td>019</td>
<td>Ammonium molybdate</td>
<td>3 kg</td>
<td></td>
</tr>
<tr>
<td>020</td>
<td>Ammonium oxalate</td>
<td>2 kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$(\text{NH}_4)_2\text{C}_2\text{O}_4 \cdot \text{H}_2\text{O}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>021</td>
<td>Ammonium phosphate, mono-H</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$(\text{NH}_4)_2\text{HPO}_4$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>022</td>
<td>Ammonium phosphate, di-H</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\text{NH}_4\text{H}_2\text{PO}_4$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>023</td>
<td>Ammonium purpureate (M REXIDE)</td>
<td>10 g</td>
<td></td>
</tr>
<tr>
<td>024</td>
<td>Ammonium sulphate $(\text{NH}_4)_2\text{SO}_4$</td>
<td>2 kg</td>
<td></td>
</tr>
<tr>
<td>025</td>
<td>Ammonium sulphate, peroxydi-$\text{(NH}_4)_2\text{S}_2\text{O}_8$</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>026</td>
<td>Ammonium tartrate</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>027</td>
<td>Ammonium thiocyanate</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>028</td>
<td>Ammonium vanadate, meta-</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>029</td>
<td>Antifoam A, silicone fluid</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td>030</td>
<td>Antimony chloride, tri-</td>
<td>250 g</td>
<td></td>
</tr>
<tr>
<td>031</td>
<td>Arsenic oxide, tri-</td>
<td>500 g</td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>--------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>032</td>
<td>Asbestos for Gooch crucibles</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>033</td>
<td>Barium acetate</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>034</td>
<td>Barium carbonate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>035</td>
<td>Barium chloride BaCl$_2$· 2H$_2$O</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>036</td>
<td>Barium chromate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>037</td>
<td>Barium diphenylaminosulphonate</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>038</td>
<td>Barium hydroxide Ba(OH)$_2$· 8H$_2$O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>039</td>
<td>Barium sulphate</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>040</td>
<td>Bentonite, powder</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>041</td>
<td>Benzene</td>
<td>5 l</td>
<td>x</td>
</tr>
<tr>
<td>042</td>
<td>Benzoic acid</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>043</td>
<td>Beryllium sulphate BeSO$_4$· 4H$_2$O</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>044</td>
<td>Bismuth carbonate, basic</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>045</td>
<td>Boric acid, crystals</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>046</td>
<td>Bromine</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>047</td>
<td>Bromocresol green</td>
<td>10 l</td>
<td>x</td>
</tr>
<tr>
<td>048</td>
<td>Bromoform</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>049</td>
<td>Bromophenol Blue</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>050</td>
<td>Bromothymol Blue</td>
<td>20 g</td>
<td>x</td>
</tr>
<tr>
<td>051</td>
<td>Brucine</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>052</td>
<td>Buffer, pH 7.0 ± 0.02</td>
<td>100 tablets</td>
<td>x</td>
</tr>
<tr>
<td>053</td>
<td>Butanol–iso (150 Butyl alcohol)</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>054</td>
<td>Cadmium chloride Cd Cl$_2$· 2 1/2 H$_2$O</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>055</td>
<td>Calcium acetate Ca (CH$_3$COO)$_2$· H$_2$O</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>056</td>
<td>Calcium carbonate</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>057</td>
<td>Calcium chloride Ca Cl$_2$· 6H$_2$O</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>058</td>
<td>Calcium chloride, fused Ca Cl$_2$</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>059</td>
<td>Calcium cyanamide</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>060</td>
<td>Calcium hydroxide, powder</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>061</td>
<td>Calcium oxalate Ca C$_2$O$_4$· H$_2$O</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>062</td>
<td>Calcium oxide, powder</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>063</td>
<td>Calcium sulphate, CaSO$_4$· 2H$_2$O</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>064</td>
<td>Canada Balsam, neutral</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>065</td>
<td>Capryl alcohol</td>
<td>2 l</td>
<td>x</td>
</tr>
<tr>
<td>066</td>
<td>Carbon disulphide</td>
<td>2 l</td>
<td>x</td>
</tr>
<tr>
<td>067</td>
<td>Carbon tetrachloride</td>
<td>10 l</td>
<td>x</td>
</tr>
<tr>
<td>068</td>
<td>Carmine</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>069</td>
<td>Castolit plastic with hardener</td>
<td>2 kg</td>
<td>22</td>
</tr>
<tr>
<td>070</td>
<td>Celluose acetate</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>071</td>
<td>Cerium ammonium sulphate (ic) (\text{Ce(SO}_4\text{)}_2 \cdot 2(\text{NH}_4)_2 \text{SO}_4 \cdot 2\text{H}_2\text{O})</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>072</td>
<td>Charcoal, decolorizing, purified</td>
<td>8 kg</td>
<td>x</td>
</tr>
<tr>
<td>073</td>
<td>Chloroform</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>074</td>
<td>Chlorophenol red</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>075</td>
<td>Chromium oxide, sesqui-(ic) (\text{Cr}_2\text{O}_3)</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>076</td>
<td>Citric acid</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>077</td>
<td>Cobalt chloride (ous) (\text{CuCl}_2 \cdot 6\text{H}_2\text{O})</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>078</td>
<td>Cobalt nitrate (ous) (\text{Co(NO}_3\text{)}_2 \cdot 6\text{H}_2\text{O})</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>079</td>
<td>Cobalt sulphate (ous) (\text{CoSO}_4 \cdot 7\text{H}_2\text{O})</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>080</td>
<td>Cochineal</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>081</td>
<td>Collodion solution</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>082</td>
<td>Complexone III</td>
<td>3 kg</td>
<td>6</td>
</tr>
<tr>
<td>083</td>
<td>Copper metal, foil</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>084</td>
<td>Copper acetate (ic) (\text{Cu(CH}_3\text{COO)}_2 \cdot \text{H}_2\text{O})</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>085</td>
<td>Copper chloride (ic) (\text{CuCl}_2 \cdot 2\text{H}_2\text{O})</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>086</td>
<td>Copper oxide (ic)</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>087</td>
<td>Copper sulphate (ic) (\text{CuSO}_4 \cdot 5\text{H}_2\text{O})</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>088</td>
<td>Cupferrom</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>089</td>
<td>Curcumin</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>090</td>
<td>Devarda's metal (alloy)</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>091</td>
<td>1,1-Dianthrimide, reagent for B</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>092</td>
<td>Diethyl ether</td>
<td>4 l</td>
<td>x</td>
</tr>
<tr>
<td>093</td>
<td>Dimethyl glyoxime</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>094</td>
<td>Dimethyl Yellow (range pH 3.0 to 4.0)</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>095</td>
<td>2,4-Dimitrophenol</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>096</td>
<td>Diphenylamine</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>097</td>
<td>Diphenylamine sulphate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>Item No</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>098</td>
<td>Diphenyl benzidine</td>
<td>5 g</td>
<td>x</td>
</tr>
<tr>
<td>099</td>
<td>Diphenyl thiocarbazone</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>100</td>
<td>Dicrylamide</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Dithizone (see Diphenyl thiocarbazone)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Erlichrome blue black B</td>
<td>50 g</td>
<td>x</td>
</tr>
<tr>
<td>102</td>
<td>Erlichrome black T</td>
<td>50 g</td>
<td>6</td>
</tr>
<tr>
<td>103</td>
<td>Ethanol 95 (Ethyl alcohol)</td>
<td>250 l</td>
<td>x</td>
</tr>
<tr>
<td>104</td>
<td>Ethanol absolute</td>
<td>2 l</td>
<td>x</td>
</tr>
<tr>
<td>105</td>
<td>Ethanolamine 99</td>
<td>2 l</td>
<td>x</td>
</tr>
<tr>
<td>106</td>
<td>Ether anhydrous</td>
<td>2 l</td>
<td>x</td>
</tr>
<tr>
<td>107</td>
<td>Ethylenediamine tetraacetil acid</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>108</td>
<td>Ethylene glycol</td>
<td>5 l</td>
<td>x</td>
</tr>
<tr>
<td>109</td>
<td>Ferric ammonium sulphate $\text{Fe Nh}_4\text{(SO}_4\text{)}_2\cdot12\text{H}_2\text{O}$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>110</td>
<td>Ferrous ammonium sulphate $\text{Fe (NH}_4\text{)}_2\text{(SO}_4\text{)}_2\cdot6\text{H}_2\text{O}$</td>
<td>40 kg</td>
<td>x</td>
</tr>
<tr>
<td>111</td>
<td>Ferric chloride $\text{Fe Cl}_3\cdot6\text{H}_2\text{O}$</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>112</td>
<td>Ferrous chloride $\text{Fe Cl}_2\cdot4\text{H}_2\text{O}$</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>113</td>
<td>Ferric sulphate $\text{Fe}_2\text{(SO}_4\text{)}_3\cdot\text{M H}_2\text{O}$</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>114</td>
<td>Ferrous sulphate, technical</td>
<td>10 kg</td>
<td>x</td>
</tr>
<tr>
<td>115</td>
<td>Ferrous sulphate $\text{Fe SO}_4\cdot7\text{H}_2\text{O}$</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>116</td>
<td>Glucose</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>117</td>
<td>Glycerin</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>118</td>
<td>Gum Acacia</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>119</td>
<td>H. H. S. N. N. indicator</td>
<td>50 g</td>
<td>6</td>
</tr>
<tr>
<td>120</td>
<td>Hydrazine sulphate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>121</td>
<td>Hydrochloric acid, Sp. Gr. 1.16 about $\text{32 w/w HC1, Technical}$</td>
<td>50 l</td>
<td>x</td>
</tr>
<tr>
<td>122</td>
<td>Hydrochloric acid, Sp. Gr. 1.18, 36 $\text{w/w HC1}$</td>
<td>80 l</td>
<td>x</td>
</tr>
<tr>
<td>123</td>
<td>Hydrofluoric acid, 48</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>124</td>
<td>Hydrogen peroxide, 100 lbs.</td>
<td>60 l</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>125</td>
<td>Hydroquinone</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>126</td>
<td>Hydroxylamine hydrochloride</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>127</td>
<td>8-Hydroxyquinoline</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>128</td>
<td>Iodine, resublimed</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>129</td>
<td>Iso-amyl alcohol</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>130</td>
<td>Kieldahl digestion catalyst granules</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>131</td>
<td>Lactic acid, sp. gr. 1.21, 85 percent</td>
<td>250 ml</td>
<td>x</td>
</tr>
<tr>
<td>132</td>
<td>Lactose C₁₂H₂₂O₁₁·H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>133</td>
<td>Lead acetate Pb (C₂H₃O₂)₂·3H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>134</td>
<td>Lead nitrate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>135</td>
<td>Ligroin, B.P. 35° - 60°</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>136</td>
<td>Lithium carbonate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>137</td>
<td>Lithium chloride</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>138</td>
<td>Litium hidroxide, anhydrous</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>139</td>
<td>Magnesium acetate Mg (C₂H₃O₂)₂·4H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>140</td>
<td>Magnesium carbonate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>141</td>
<td>Magnesium chloride Mg Cl₂·6H₂O</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>142</td>
<td>Magnesium complexonate</td>
<td>2 kg</td>
<td>6</td>
</tr>
<tr>
<td>143</td>
<td>Magnesium hydroxide</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>144</td>
<td>Magnesium nitrate Mg (NO₃)₂·6H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>145</td>
<td>Magnesium oxide, heavy</td>
<td>15 kg</td>
<td>x</td>
</tr>
<tr>
<td>146</td>
<td>Magnesium sulphate Mg SO₄·7H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>147</td>
<td>Manganese chloride Mn Cl₂·4H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>148</td>
<td>Manganese oxide, di-</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>149</td>
<td>Manganese sulphate MnSO₄·H₂O (ous)</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>150</td>
<td>D-Manitol</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>151</td>
<td>Mercury chloride (ic)</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>152</td>
<td>Mercury iodide (ic)</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>153</td>
<td>Mercury, metal</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>154</td>
<td>Mercury, nitrate (ic) Hg(NO₃)₂, H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>155</td>
<td>Mercury, nitrate (ous) Hg NO₃·H₂O</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>156</td>
<td>Mercury oxide (ic)</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>157</td>
<td>Mercury sulphate (ic)</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>158</td>
<td>Meta-methyl red</td>
<td>10 kg</td>
<td>x</td>
</tr>
<tr>
<td>159</td>
<td>Methanol</td>
<td>10 l</td>
<td>x</td>
</tr>
<tr>
<td>160</td>
<td>Methyl Orange</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>161</td>
<td>Methyl Red</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>162</td>
<td>Methylene Blue</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>163</td>
<td>Metol</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>164</td>
<td>Molybdenum oxide, tri-</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Murexide (see Ammonium purpurate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>165</td>
<td>1-Naphthylamine</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>166</td>
<td>Nickel chloride (ous) Ni Cl₂·6H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>167</td>
<td>Nickel sulphate, (ous) Ni SO₄·6H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>168</td>
<td>Nitric acid, Sp. Gr. 1.39</td>
<td>25 l</td>
<td>x</td>
</tr>
<tr>
<td>169</td>
<td>Nitric acid, fuming, Sp. Gr. 1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>170</td>
<td>p-Nitrophenol</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>171</td>
<td>Nitroso-R salt</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>172</td>
<td>Oleic acid, Sp. Gr. 0.89</td>
<td>500 m</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Orthophosphoric acid (see Phosphoric acid)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>173</td>
<td>Oxalic acid, anhydrous C₂O₄H₂·2H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>174</td>
<td>Paraffin oil (mineral oil)</td>
<td>4 l</td>
<td>x</td>
</tr>
<tr>
<td>175</td>
<td>Paraffin wax, filtered, soft. M. pt. 46°C</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>176</td>
<td>Paraffin wax, filtered, hard. M. pt. 57°C to 60°C</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>177</td>
<td>Perchloric acid, Sp. Gr. 1-54, 60 w/w</td>
<td>3 l</td>
<td>x</td>
</tr>
<tr>
<td>178</td>
<td>Petroleum spirit, B. pt. 60°C to 80°C</td>
<td>10 l</td>
<td>x</td>
</tr>
<tr>
<td>179</td>
<td>0-Phenantroline ferrous sulphate complex (Ferroin)</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>180</td>
<td>Phenol, Cristals</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>181</td>
<td>Phenolphthaleine</td>
<td>50 g</td>
<td>x</td>
</tr>
<tr>
<td>182</td>
<td>Phenol Red</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>183</td>
<td>Phenol sulphonic acid solution 75 w/w</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>184</td>
<td>Phenyl anthranilic acid</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>185</td>
<td>Phosphoric acid, ortho-, Sp. Gr. 1.76, 85</td>
<td>60 l</td>
<td>x</td>
</tr>
<tr>
<td>186</td>
<td>Phosphorus oxide pent-P$_2$O$_5$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>187</td>
<td>Piperine</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>188</td>
<td>Potassium acetate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>189</td>
<td>Potassium bisulphate KHSO$_4$</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>190</td>
<td>Potassium bromide</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>191</td>
<td>Potassium carbonate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>192</td>
<td>Potassium carbonate, acid (bicarbonate)</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>193</td>
<td>Potassium chloride</td>
<td>10 kg</td>
<td>x</td>
</tr>
<tr>
<td>194</td>
<td>Potassium chromate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>195</td>
<td>Potassium cyanide</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>196</td>
<td>Potassium dichromate</td>
<td>10 kg</td>
<td>x</td>
</tr>
<tr>
<td>197</td>
<td>Potassium ferricyanide</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>198</td>
<td>Potassium ferrocyanide K$_4$F$_2$ (CN)$_6$·3H$_2$O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>199</td>
<td>Potassium hydroxide, pellets</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>200</td>
<td>Potassium iodide</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>201</td>
<td>Potassium metabisulphite (pyrosulphite)</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>202</td>
<td>Potassium nitrate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>203</td>
<td>Potassium nitrite</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>204</td>
<td>Potassium periodate, meta</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>205</td>
<td>Potassium permanganate</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>206</td>
<td>Potassium phosphate K$_3$PO$_4$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>207</td>
<td>Potassium phosphate, mono-H K$_2$HPO$_4$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>208</td>
<td>Potassium phosphate, di-H KH$_2$PO$_4$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>209</td>
<td>Potassium phthalate, acid</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>210</td>
<td>Potassium pyrosulphate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>211</td>
<td>Potassium sulphate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>212</td>
<td>Potassium tartrate K$_2$C$_4$H$_4$O$_6$·1/2H$_2$O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>213</td>
<td>Potassium thiocyanate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>214</td>
<td>Propionic acid</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>215</td>
<td>iso-Propyl alcohol</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>216</td>
<td>Pumice, gran, 5-10 mm</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>217</td>
<td>Pyrogallol</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
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<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>218</td>
<td>Quinalizarin</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>219</td>
<td>Resin, 200 to 400 mesh</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>220</td>
<td>Salicylic acid</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>221</td>
<td>Sand, acid washed</td>
<td>100 kg</td>
<td>x</td>
</tr>
<tr>
<td>222</td>
<td>Selenium, powder</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>223</td>
<td>Silica gel, self indicating, 4-6 mm</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>224</td>
<td>Silver nitrate</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>225</td>
<td>Silver sulphate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>226</td>
<td>Soda lime, 3-6 mm, indicating grade</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>227</td>
<td>Sodium acetate $\text{CH}_3\text{COONa} \cdot 3\text{H}_2\text{O}$</td>
<td>15 kg</td>
<td>x</td>
</tr>
<tr>
<td>228</td>
<td>Sodium bismuthate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>229</td>
<td>Sodium bisulphite $\text{Na}_3\text{SO}_4$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>230</td>
<td>Sodium borate, tetra, Borax $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>231</td>
<td>Sodium carbonate, anhydrous $\text{Na}_2\text{CO}_3$</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>232</td>
<td>Sodium carbonate, acid (bicarbonate) $\text{NaHCO}_3$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>233</td>
<td>Sodium chloride</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>234</td>
<td>Sodium citrate $\text{Na}_3\text{C}_6\text{H}_5\text{O}_7 \cdot 2\text{H}_2\text{O}$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>235</td>
<td>Sodium cobaltinitrite</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>236</td>
<td>Sodium cyanide</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>237</td>
<td>Sodium dichromate $\text{Na}_2\text{Cr}_2\text{O}_7 \cdot 2\text{H}_2\text{O}$</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>238</td>
<td>Sodium diethylthiocarbamate $(\text{C}_2\text{H}_5)_2\text{NOSNa} \cdot 3\text{H}_2\text{O}$</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>239</td>
<td>Sodium dithionate $\text{Na}_2\text{S}_2\text{O}_5 \cdot 2\text{H}_2\text{O}$</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>240</td>
<td>Sodium hexametaphosphate $\text{Na}_6(\text{PO}_4)_6(?)$</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>241</td>
<td>Sodium hydroxide, pellets</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>242</td>
<td>Sodium hydroxide, technical, flakes</td>
<td>200 kg</td>
<td>x</td>
</tr>
<tr>
<td>243</td>
<td>Sodium hydroxide, solution concentrated to make IN solutions</td>
<td>12 bottles</td>
<td>x</td>
</tr>
<tr>
<td>244</td>
<td>Sodium metabisulphite (pyrosulphite)</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>245</td>
<td>Sodium molybdate $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>246</td>
<td>Sodium nitrate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>247</td>
<td>Sodium nitrite</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>248</td>
<td>Sodium oxalate</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>249</td>
<td>Sodium oxide, di-(peroxide)</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>250</td>
<td>Sodium periodate, meta</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>251</td>
<td>Sodium phosphate Na₃PO₄·12H₂O</td>
<td>3 kg</td>
<td>x</td>
</tr>
<tr>
<td>252</td>
<td>Sodium phosphate, mono-H Na₂HPO₄·7H₂O</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>253</td>
<td>Sodium phosphate, di-H NaH₂PO₄·4H₂O</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>254</td>
<td>Sodium potassium tartrate NaK C₄H₆O₄·4H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>255</td>
<td>Sodium salicylate</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>256</td>
<td>Sodium silicate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>257</td>
<td>Sodium sulphate Na₂SO₄·10H₂O</td>
<td>12 kg</td>
<td>x</td>
</tr>
<tr>
<td>258</td>
<td>Sodium sulphate, acid (bisulphate) NaHSO₄·H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>259</td>
<td>Sodium sulphide, mono Na₂S·9H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>260</td>
<td>Sodium sulphide, hydro NaHS</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>261</td>
<td>Sodium sulphite, anhydrous</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>262</td>
<td>Sodium sulphite, hypo Na₂S₂O₄·2H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>263</td>
<td>Sodium tartrate Na₂C₄H₆O₆·2H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>264</td>
<td>Sodium thiocyanate</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>265</td>
<td>Sodium tungstate Na₂WO₄·2H₂O</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>266</td>
<td>Stannic chloride SnCl₄·5H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>267</td>
<td>Stannous chloride SnCl₂·2H₂O</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>268</td>
<td>Starch, soluble</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>269</td>
<td>Strontium chloride SrCl₂·6H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>270</td>
<td>Succinic acid</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>271</td>
<td>Sulphanilic acid 4-NH₂C₆H₄SO₃.H₂O</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>272</td>
<td>Sulphuric acid, Technical about 97% H₂SO₄</td>
<td>50 l</td>
<td>x</td>
</tr>
<tr>
<td>273</td>
<td>Sulphuric acid, Sp. Gr. 1.84</td>
<td>220 l</td>
<td>x</td>
</tr>
<tr>
<td>274</td>
<td>Sulphuric acid, fuming, 25% SO₃</td>
<td>5 l</td>
<td>x</td>
</tr>
<tr>
<td>275</td>
<td>Tannic acid</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>276</td>
<td>Thioglycolic acid</td>
<td>100 g</td>
<td>x</td>
</tr>
<tr>
<td>277</td>
<td>Thymol blue</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>278</td>
<td>Thymolphtaleine</td>
<td>10 g</td>
<td>x</td>
</tr>
<tr>
<td>279</td>
<td>Tin, metal, granulated</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>280</td>
<td>Tiron, indicator</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>281</td>
<td>Titanium oxide, di-</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>282</td>
<td>Titanium sulphate Ti (SO₄)₂·9H₂O</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>283</td>
<td>Titan yellow (Clayton yellow) reagent for Mg</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>284</td>
<td>Toluene, purified</td>
<td>1 l</td>
<td>x</td>
</tr>
<tr>
<td>285</td>
<td>Triethanolamine, technical Sp. Gr. 1.126</td>
<td>2 l</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>286</td>
<td>Turmeric, powder</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>287</td>
<td>Uranyl zinc acetate (\text{VO}_2 \text{C}_2 \text{H}_3 \text{O}_2 )(_2 \text{Zn} \text{C}_2 \text{H}_3 \text{O}_2 )(_2 \text{H}_2 \text{O})</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>288</td>
<td>Urea</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>289</td>
<td>Vaseline white</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>290</td>
<td>Wood cotton, nonabsorbent, white</td>
<td>5 kg</td>
<td>x</td>
</tr>
<tr>
<td>291</td>
<td>Zinc, metal, powder</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>292</td>
<td>Zinc carbonate</td>
<td>500 g</td>
<td>x</td>
</tr>
<tr>
<td>293</td>
<td>Zinc dibenzylidithiocarbamate</td>
<td>25 g</td>
<td>x</td>
</tr>
<tr>
<td>294</td>
<td>Zincon</td>
<td>5 g</td>
<td>x</td>
</tr>
<tr>
<td>295</td>
<td>Zinc sulphate (\text{ZnSO}_4 \cdot 7\text{H}_2 \text{O})</td>
<td>1 kg</td>
<td>x</td>
</tr>
</tbody>
</table>
3B. Glassware and Porcelain
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>Beakers, boro-silicate glass, low form, with spout, capacity</td>
<td>50 ml</td>
<td>20</td>
</tr>
<tr>
<td>502</td>
<td>- ditto</td>
<td>100 ml</td>
<td>30</td>
</tr>
<tr>
<td>503</td>
<td>- ditto</td>
<td>150 ml</td>
<td>30</td>
</tr>
<tr>
<td>504</td>
<td>- ditto</td>
<td>250 ml</td>
<td>30</td>
</tr>
<tr>
<td>505</td>
<td>- ditto</td>
<td>400 ml</td>
<td>30</td>
</tr>
<tr>
<td>506</td>
<td>- ditto</td>
<td>600 ml</td>
<td>30</td>
</tr>
<tr>
<td>507</td>
<td>- ditto</td>
<td>1000 ml</td>
<td>10</td>
</tr>
<tr>
<td>508</td>
<td>- ditto</td>
<td>2000 ml</td>
<td>5</td>
</tr>
<tr>
<td>509</td>
<td>Beakers, boro-silicate glass, tall form, with spout, capacity</td>
<td>50 ml</td>
<td>20</td>
</tr>
<tr>
<td>510</td>
<td>- ditto</td>
<td>100 ml</td>
<td>20</td>
</tr>
<tr>
<td>511</td>
<td>- ditto</td>
<td>150 ml</td>
<td>20</td>
</tr>
<tr>
<td>512</td>
<td>- ditto</td>
<td>250 ml</td>
<td>20</td>
</tr>
<tr>
<td>513</td>
<td>- ditto</td>
<td>400 ml</td>
<td>10</td>
</tr>
<tr>
<td>514</td>
<td>- ditto</td>
<td>600 ml</td>
<td>10</td>
</tr>
<tr>
<td>515</td>
<td>- ditto</td>
<td>1000 ml</td>
<td>10</td>
</tr>
<tr>
<td>516</td>
<td>Bottles, aspirator, boro-silicate glass, outlet for stopper, capacity</td>
<td>1000 ml</td>
<td>4</td>
</tr>
<tr>
<td>517</td>
<td>- ditto - with glass stopcock</td>
<td>10 l</td>
<td>2</td>
</tr>
<tr>
<td>518</td>
<td>- ditto - with glass stopcock</td>
<td>20 l</td>
<td>2</td>
</tr>
<tr>
<td>519</td>
<td>Spare glass stopcock for Nos. 517 and 518</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>520</td>
<td>Bottles, dropping, flat stopper cap.</td>
<td>50 ml</td>
<td>10</td>
</tr>
<tr>
<td>521</td>
<td>- ditto</td>
<td>100 ml</td>
<td>10</td>
</tr>
<tr>
<td>522</td>
<td>Bottles, dropping, with rubber bulb, capacity</td>
<td>50 ml</td>
<td>10</td>
</tr>
<tr>
<td>523</td>
<td>Bottles, gaswash, drechsel, ground glass head fitting, capacity</td>
<td>250 ml</td>
<td>2</td>
</tr>
<tr>
<td>524</td>
<td>- ditto</td>
<td>500 ml</td>
<td>2</td>
</tr>
<tr>
<td>525</td>
<td>Bottles, narrow mouth, boro-silicate glass, capacity</td>
<td>12.5 l</td>
<td>2</td>
</tr>
<tr>
<td>526</td>
<td>Bottles, reagent, plain narrow mouth, flat T stopper, capacity</td>
<td>125 ml</td>
<td>10</td>
</tr>
<tr>
<td>527</td>
<td>- ditto</td>
<td>250 ml</td>
<td>20</td>
</tr>
<tr>
<td>528</td>
<td>- ditto</td>
<td>500 ml</td>
<td>20</td>
</tr>
<tr>
<td>529</td>
<td>- ditto</td>
<td>1000 ml</td>
<td>20</td>
</tr>
<tr>
<td>530</td>
<td>- ditto</td>
<td>2000 ml</td>
<td>5</td>
</tr>
<tr>
<td>531</td>
<td>- ditto</td>
<td>3000 ml</td>
<td>10</td>
</tr>
<tr>
<td>532</td>
<td>- ditto</td>
<td>5000 ml</td>
<td>4</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>533</td>
<td>Bottles reagent, narrow mouth, amber glass, coin head stopper, capac.</td>
<td>500 ml</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>1000 ml</td>
<td>10</td>
</tr>
<tr>
<td>534</td>
<td>Bottles, specific gravity, cap.</td>
<td>25 ml</td>
<td>10</td>
</tr>
<tr>
<td>535</td>
<td>- ditto -</td>
<td>50 ml</td>
<td>10</td>
</tr>
<tr>
<td>536</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>10</td>
</tr>
<tr>
<td>538</td>
<td>Bottles, wash, borosilicate glass, complete unit, capacity</td>
<td>1000 ml</td>
<td>5</td>
</tr>
<tr>
<td>539</td>
<td>Bottles, weighing, low form, cylindrical, capacity</td>
<td>35 ml</td>
<td>10</td>
</tr>
<tr>
<td>540</td>
<td>- ditto -</td>
<td>60 ml</td>
<td>20</td>
</tr>
<tr>
<td>541</td>
<td>Bottles, wide mouth, threaded neck, screw cap, capacity</td>
<td>1000 ml</td>
<td>10</td>
</tr>
<tr>
<td>542</td>
<td>Bulbs, connecting kjeldahl, diam.</td>
<td>65 mm</td>
<td>15</td>
</tr>
<tr>
<td>543</td>
<td>Burettes, automatic, with 2 liter reservoir graduated to 0.05 ml, capacity</td>
<td>10 ml</td>
<td>3</td>
</tr>
<tr>
<td>544</td>
<td>- ditto - graduated to 0.1 ml</td>
<td>25 ml</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>- ditto - graduated to 0.1 ml</td>
<td>50 ml</td>
<td>3</td>
</tr>
<tr>
<td>546</td>
<td>Burettes, dispensing, with standard stopcock</td>
<td>100 ml</td>
<td>3</td>
</tr>
<tr>
<td>547</td>
<td>- ditto -</td>
<td>250 ml</td>
<td>3</td>
</tr>
<tr>
<td>548</td>
<td>Burettes, Grade B, with pinchcock (Mohr), graduated to 0.1 ml, cap.</td>
<td>10 ml</td>
<td>5</td>
</tr>
<tr>
<td>549</td>
<td>- ditto -</td>
<td>25 ml</td>
<td>5</td>
</tr>
<tr>
<td>550</td>
<td>- ditto -</td>
<td>50 ml</td>
<td>5</td>
</tr>
<tr>
<td>551</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>5</td>
</tr>
<tr>
<td>552</td>
<td>Burettes, Grade B, with standard glass stopcock, capacity</td>
<td>10 ml</td>
<td>5</td>
</tr>
<tr>
<td>553</td>
<td>- ditto -</td>
<td>25 ml</td>
<td>5</td>
</tr>
<tr>
<td>554</td>
<td>- ditto -</td>
<td>50 ml</td>
<td>5</td>
</tr>
<tr>
<td>555</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>5</td>
</tr>
<tr>
<td>556</td>
<td>Burettes, Grade A, standard glass stopcock, capacity</td>
<td>25 ml</td>
<td>2</td>
</tr>
<tr>
<td>557</td>
<td>- ditto -</td>
<td>50 ml</td>
<td>2</td>
</tr>
<tr>
<td>558</td>
<td>Microburette graduated 0.02 ml, straight glass stopcock, capacity</td>
<td>10 ml</td>
<td>2</td>
</tr>
<tr>
<td>559</td>
<td>Clock glasses, diameter</td>
<td>60 mm</td>
<td>30</td>
</tr>
<tr>
<td>560</td>
<td>- ditto -</td>
<td>90 mm</td>
<td>30</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>561</td>
<td>Clock glasses, diameter</td>
<td>150 mm</td>
<td>x</td>
</tr>
<tr>
<td>562</td>
<td>Condensers, cold finger, length below flange 110 mm, diam. below</td>
<td>20 mm</td>
<td>x</td>
</tr>
<tr>
<td>563</td>
<td>Condenser, Liebig, length</td>
<td>300 mm</td>
<td>x</td>
</tr>
<tr>
<td>564</td>
<td>Crucibles, Gooch, perforated base, capacity</td>
<td>25 ml</td>
<td>x</td>
</tr>
<tr>
<td>565</td>
<td>Crucibles, Gooch, boro-silicate glass, low form, with fused in fritted disk, medium-grade porosity, capacity</td>
<td>50 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto - fine grade por.</td>
<td>50 ml</td>
<td>x</td>
</tr>
<tr>
<td>566</td>
<td>Crucibles, porcelain, with lid, capacity</td>
<td>15 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>30 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>50 ml</td>
<td>x</td>
</tr>
<tr>
<td>567</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>x</td>
</tr>
<tr>
<td>568</td>
<td>Crucibles, silica, with lid, capacity</td>
<td>50 ml</td>
<td>x</td>
</tr>
<tr>
<td>569</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>x</td>
</tr>
<tr>
<td>570</td>
<td>Cylinders, Grade B, graduated, with pourout, capacity</td>
<td>25 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>50 ml</td>
<td>x</td>
</tr>
<tr>
<td>571</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>x</td>
</tr>
<tr>
<td>572</td>
<td>- ditto -</td>
<td>1000 ml</td>
<td>x</td>
</tr>
<tr>
<td>573</td>
<td>Desiccators, with cover, inside diameter</td>
<td>250 mm</td>
<td>x</td>
</tr>
<tr>
<td>574</td>
<td>Desiccator, porcelain plates for No. 579 above</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>575</td>
<td>Desiccator, perforated zinc plates, for No. 579 above</td>
<td></td>
<td>x</td>
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<tr>
<td>576</td>
<td>Extraction apparatus Soxhlet with interchangeable ground glass joints,</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>complete, flask capacity</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>582</td>
<td>Spare flasks for No. 582 above</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>583</td>
<td>Evaporating dishes, porcalein glazed</td>
<td>75 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>150 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>250 ml</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>500 ml</td>
<td>x</td>
</tr>
<tr>
<td>584</td>
<td>Evaporating dishes, porcelain glazed, flat pattern</td>
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<tr>
<td>585</td>
<td>Flasks, boiling, flat bottom, vial mouth, boro-silicate glass, capacity</td>
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<td>x</td>
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<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
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<td>590</td>
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<td>- ditto</td>
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<td>Flasks, boiling, round bottom, boro-silicate glass, capacity</td>
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<td>599</td>
<td>Flasks boiling, short neck, T joint</td>
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<td>Flasks, Erlemmeyer, boro-silicate glass, conical, capacity</td>
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<td></td>
<td>- ditto</td>
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<td>Flasks, extraction, boro silicate glass, capacity</td>
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<td>Flasks, filtering, boro-silicate glass, with side tube, capacity</td>
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<td>Flasks, Kjeldhal, micro, boro-silicate glass, capacity</td>
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<td>Flasks, Kjeldahl, round bottom, long neck, capacity</td>
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<td>- ditto</td>
<td>50 ml</td>
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</tr>
<tr>
<td></td>
<td>- ditto</td>
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<td>20</td>
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<td>- ditto</td>
<td>250 ml</td>
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<td>Flasks, volumetric, certified grade A, with certificate, capacity</td>
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<td>Funnels, boro-silicate glass, diam. 50 mm, stem length</td>
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<td>624</td>
<td>ditto - 75 mm, stem length</td>
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<tr>
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<td>ditto - 100 mm, stem length</td>
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<td>626</td>
<td>ditto - 150 mm, stem length</td>
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<td>Funnels, Buchner, boro-silicate glass, fritted, medium porosity, capacity</td>
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<td>628</td>
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<td>Funnels, Buchner, porcelain plate type, diam.</td>
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<td>Funnels, separatory, cylindrical, graduated from stopcock, capacity</td>
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<td>633</td>
<td>Funnels, separatory, boro-silicate glass, Squib type, capacity</td>
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<td>Funnels, separatory, large capacity</td>
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<td>635</td>
<td>Glass bals, 5 TO 6 mm diameter</td>
<td>1 kg</td>
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<tr>
<td>636</td>
<td>Glass rod, boro-silicate glass diam.</td>
<td>2 kg</td>
<td></td>
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<tr>
<td>637</td>
<td>ditto</td>
<td>2 kg</td>
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<tr>
<td>638</td>
<td>Glass stopcock, 10 cm side arm, bore</td>
<td>20</td>
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<td>639</td>
<td>Glass stopcock, three way, bore</td>
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<tr>
<td>640</td>
<td>Glass tubing, standard wall thickness, boro-silicate glass, outside diameter</td>
<td>2 kg</td>
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<tr>
<td>641</td>
<td>ditto - outs. diam.</td>
<td>5 kg</td>
<td></td>
</tr>
<tr>
<td>642</td>
<td>ditto - outs. diam.</td>
<td>5 kg</td>
<td></td>
</tr>
<tr>
<td>643</td>
<td>ditto - outs. diam.</td>
<td>5 kg</td>
<td></td>
</tr>
<tr>
<td>644</td>
<td>ditto - outs. diam.</td>
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<td></td>
</tr>
<tr>
<td>645</td>
<td>ditto - outs. diam.</td>
<td>2 kg</td>
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</tr>
<tr>
<td>646</td>
<td>ditto - outs. diam.</td>
<td>2 kg</td>
<td></td>
</tr>
<tr>
<td>647</td>
<td>ditto - outs. diam.</td>
<td>2 kg</td>
<td></td>
</tr>
<tr>
<td>648</td>
<td>ditto - outs. diam.</td>
<td>2 kg</td>
<td></td>
</tr>
<tr>
<td>649</td>
<td>Glass tubing, heavy wall, boro-silicate glass, outside diam.</td>
<td>1 kg</td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible Source</td>
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<td>------------------------------------------------------------------------------</td>
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<tr>
<td>650</td>
<td>Glass tubing, heavy wall, boro-silicate glass, outside diam.</td>
<td>8 mm</td>
<td>1 kg</td>
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<tr>
<td>651</td>
<td>- ditto - outside diameter</td>
<td>10 mm</td>
<td>2 kg</td>
</tr>
<tr>
<td>652</td>
<td>- ditto - outside diameter</td>
<td>12 mm</td>
<td>1 kg</td>
</tr>
<tr>
<td>653</td>
<td>Hydrometer, shot weighted, two hundred degree series, length 22-24 cm,</td>
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</tr>
<tr>
<td></td>
<td>range 0.60-0.80</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>654</td>
<td>- ditto - range 0.80-1.00</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>655</td>
<td>- ditto - range 1.00-1.20</td>
<td>1</td>
<td>x</td>
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<tr>
<td>656</td>
<td>- ditto - range 1.20-1.40</td>
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<td>x</td>
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<tr>
<td>657</td>
<td>Jars, low form, flint glass, plastic screwtop, capacity</td>
<td>500 ml</td>
<td>100</td>
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<tr>
<td>658</td>
<td>Mortar and pestle, porcelain, diam. of mortar 200 mm, capacity 1.5 or 2 l.</td>
<td></td>
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<tr>
<td>659</td>
<td>Mortar and pestle, porcelain, diam. of mortar 150 mm, capacity</td>
<td>400 ml approx.</td>
<td>2</td>
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<td>660</td>
<td>Mortar and pestle, agate, polished, external diam. of mortar 85 mm,</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>internal 75 mm</td>
<td>1</td>
<td>x</td>
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<tr>
<td>661</td>
<td>Plates, spotting, porcelain, glazed 12-hole, 120 x 80 mm, approx.</td>
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<tr>
<td>662</td>
<td>Pipettes, Grade B, volumetric, transfer, capacity</td>
<td>1 ml</td>
<td>5</td>
</tr>
<tr>
<td>663</td>
<td>- ditto -</td>
<td>2 ml</td>
<td>5</td>
</tr>
<tr>
<td>664</td>
<td>Pipettes, Grade B, volumetric, transfer, capacity</td>
<td>5 ml</td>
<td>10</td>
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<tr>
<td>665</td>
<td>- ditto -</td>
<td>10 ml</td>
<td>10</td>
</tr>
<tr>
<td>666</td>
<td>- ditto -</td>
<td>20 ml</td>
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<tr>
<td>667</td>
<td>- ditto -</td>
<td>25 ml</td>
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<td>668</td>
<td>- ditto -</td>
<td>40 ml</td>
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<td>669</td>
<td>- ditto -</td>
<td>50 ml</td>
<td>10</td>
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<td>670</td>
<td>- ditto -</td>
<td>100 ml</td>
<td>5</td>
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<td>671</td>
<td>Pipettes, Grade A, volumetric, transfer, capacity</td>
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<td>- ditto -</td>
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<td>2</td>
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<td>673</td>
<td>- ditto -</td>
<td>25 ml</td>
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<tr>
<td>674</td>
<td>Pipettes, measuring (Mohr), boro-silicate glass, graduation internal</td>
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<td></td>
<td>1/10 ml to deliver</td>
<td>1 ml</td>
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<tr>
<td>675</td>
<td>- ditto -</td>
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<td>5</td>
</tr>
<tr>
<td>676</td>
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<td>10 ml</td>
<td>5</td>
</tr>
<tr>
<td>677</td>
<td>- ditto -</td>
<td>25 ml</td>
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<tr>
<td>Item No.</td>
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<td>Possible source</td>
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<tr>
<td>678</td>
<td>Pipette automatic, T joint, with flask 300 ml, capacity</td>
<td>1 ml</td>
<td>x</td>
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<tr>
<td>679</td>
<td>- ditto</td>
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<td>x</td>
</tr>
<tr>
<td>680</td>
<td>- ditto</td>
<td>3 ml</td>
<td>x</td>
</tr>
<tr>
<td>681</td>
<td>- ditto</td>
<td>5 ml</td>
<td>x</td>
</tr>
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<td>682</td>
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<td>683</td>
<td>Pipette automatic 15 ml T. joint with flask 500 ml, capacity</td>
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<td>25 ml</td>
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<td>685</td>
<td>- ditto</td>
<td>30 ml</td>
<td>x</td>
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<td>686</td>
<td>- ditto</td>
<td>50 ml</td>
<td>x</td>
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<tr>
<td>687</td>
<td>T. pieces, glass, outside diameter</td>
<td>8 mm</td>
<td>x</td>
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<tr>
<td>688</td>
<td>- ditto</td>
<td>12 mm</td>
<td>x</td>
</tr>
<tr>
<td>689</td>
<td>Y pieces, glass, outside diameter</td>
<td>8 mm</td>
<td>x</td>
</tr>
<tr>
<td>690</td>
<td>- ditto</td>
<td>12 mm</td>
<td>x</td>
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<tr>
<td>691</td>
<td>Test tubes, boro-silicate glass, without lip</td>
<td>18x150 mm</td>
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<td>692</td>
<td>Test tubes, boro-silicate glass, without lip</td>
<td>10x100 mm</td>
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<tr>
<td>693</td>
<td>Test tubes, soda glass</td>
<td>18x150 mm</td>
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<td>Thermometers, general laboratory range -5 to 110°C.</td>
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<tr>
<td>695</td>
<td>- ditto, range -5 to 200°C</td>
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<tr>
<td>696</td>
<td>- ditto, range -5 to 360°C</td>
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<td>697</td>
<td>Thermometers range 0 to 40°C with 0.2 intervals</td>
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<td>Thermometers, armored, 2°C interval range -6 to 500°C.</td>
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<td>Tubes, calcium chloride absorption, 150 x 20 mm, bulb, 30 mm.</td>
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<td>700</td>
<td>Tubes, centrifuge, boro-silicate glass, graduated, tapered</td>
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<td>701</td>
<td>Tubes, centrifuge, boro-silicate glass, round bottom</td>
<td>50 ml</td>
<td>x</td>
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<tr>
<td>702</td>
<td>Tubes, centrifuge, conical</td>
<td>12 ml</td>
<td>x</td>
</tr>
<tr>
<td>703</td>
<td>- ditto</td>
<td>50 ml</td>
<td>x</td>
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<tr>
<td>704</td>
<td>Tubes, leaching, straight body 30 mm, internal diameter, length of body</td>
<td>200 mm, stem 40 mm long, by internal diameter 5 to 6 mm</td>
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3C. Polythene and Plastic ware
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<tr>
<td>801</td>
<td>Beakers, Polythene, squat form with spout, capacity</td>
<td>25 ml</td>
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<td>- ditto</td>
<td>50 ml</td>
<td>50</td>
</tr>
<tr>
<td>803</td>
<td>- ditto</td>
<td>100 ml</td>
<td>50</td>
</tr>
<tr>
<td>804</td>
<td>- ditto</td>
<td>250 ml</td>
<td>20</td>
</tr>
<tr>
<td>805</td>
<td>- ditto</td>
<td>400 ml</td>
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</tr>
<tr>
<td>806</td>
<td>- ditto</td>
<td>600 ml</td>
<td>20</td>
</tr>
<tr>
<td>807</td>
<td>- ditto</td>
<td>1 l</td>
<td>10</td>
</tr>
<tr>
<td>808</td>
<td>- ditto</td>
<td>2 l</td>
<td>10</td>
</tr>
<tr>
<td>809</td>
<td>Bottles, Aspirator, Polythene complete, with polythene stopcock, capacity</td>
<td>4 l</td>
<td>5</td>
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<tr>
<td>810</td>
<td>- ditto</td>
<td>9 l</td>
<td>5</td>
</tr>
<tr>
<td>811</td>
<td>- ditto</td>
<td>23 l</td>
<td>5</td>
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<td>812</td>
<td>Spare stopcock for the above items</td>
<td>4 l</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>809 to 811</td>
<td></td>
<td></td>
</tr>
<tr>
<td>813</td>
<td>Bottles, dropping, Polythene</td>
<td>50 ml</td>
<td>25</td>
</tr>
<tr>
<td>814</td>
<td>Bottles, polythene, medium weight, wide mouth, polythene screw cap</td>
<td>600 ml</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>and rubber sealing ring, capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>815</td>
<td>Spare rubber sealing rings for No. 814 above</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>816</td>
<td>Bottles, Polythene, rigid type, narrow mouth with screw cap and gasket,</td>
<td>600 ml</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>817</td>
<td>- ditto</td>
<td>1250 ml</td>
<td>20</td>
</tr>
<tr>
<td>818</td>
<td>- ditto</td>
<td>4.5 l</td>
<td>5</td>
</tr>
<tr>
<td>819</td>
<td>- ditto</td>
<td>9 l</td>
<td>5</td>
</tr>
<tr>
<td>820</td>
<td>Bottles, specimen, polythene, capacity</td>
<td>30 ml</td>
<td>50</td>
</tr>
<tr>
<td>821</td>
<td>Bottles, wash, polythene, squeeze type, capacity</td>
<td>250 ml</td>
<td>20</td>
</tr>
<tr>
<td>822</td>
<td>- ditto</td>
<td>500 ml</td>
<td>20</td>
</tr>
<tr>
<td>823</td>
<td>Bowls, Polythene, square 30 cm x 30 cm x 11 cm</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>824</td>
<td>Buckets, Polythene, rigid type, calibrated in liters.Capacity 12 l</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>825</td>
<td>Clips, spring, Polythene coated, closed type</td>
<td>0.5/8 in.</td>
<td>12</td>
</tr>
<tr>
<td>826</td>
<td>- ditto</td>
<td>3/8 in.</td>
<td>12</td>
</tr>
<tr>
<td>827</td>
<td>- ditto</td>
<td>5/8 in.</td>
<td>12</td>
</tr>
<tr>
<td>828</td>
<td>- ditto</td>
<td>3/4 in.</td>
<td>12</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>829</td>
<td>Clips, spring, Polythene coated, closed type</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>830</td>
<td>- ditto</td>
<td>1 1/8 in.</td>
<td>12</td>
</tr>
<tr>
<td>831</td>
<td>- ditto</td>
<td>1 1/4 in.</td>
<td>12</td>
</tr>
<tr>
<td>832</td>
<td>- ditto</td>
<td>1 1/2 in.</td>
<td>12</td>
</tr>
<tr>
<td>833</td>
<td>Covers, burette, Polythene</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>834</td>
<td>Cylinders, graduated, Polythene</td>
<td>25 ml</td>
<td>2</td>
</tr>
<tr>
<td>835</td>
<td>- ditto</td>
<td>50 ml</td>
<td>5</td>
</tr>
<tr>
<td>836</td>
<td>- ditto</td>
<td>250 ml</td>
<td>2</td>
</tr>
<tr>
<td>837</td>
<td>- ditto</td>
<td>500 ml</td>
<td>2</td>
</tr>
<tr>
<td>838</td>
<td>- ditto</td>
<td>1000 ml</td>
<td>2</td>
</tr>
<tr>
<td>839</td>
<td>Film, Polythene, 200 gauge (0.05 mm), 120 cm wide</td>
<td>10 meters</td>
<td>3</td>
</tr>
<tr>
<td>840</td>
<td>Funnels, filter, Polythene 3.7 cm diam.</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>841</td>
<td>- ditto - 9 cm diam.</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>842</td>
<td>Funnels, filter, Polythene, heavy weight, 15 cm diam.</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>843</td>
<td>- ditto - 25 cm diam.</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>844</td>
<td>- ditto - 30 cm diam.</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>845</td>
<td>Rod, perspex</td>
<td>12 mm diam.</td>
<td>5 meters</td>
</tr>
<tr>
<td>846</td>
<td>Rod, perspex</td>
<td>19 mm diam.</td>
<td>5 meters</td>
</tr>
<tr>
<td>847</td>
<td>Rod, polythene</td>
<td>6 mm diam.</td>
<td>10 meters</td>
</tr>
<tr>
<td>848</td>
<td>Rod, polythene</td>
<td>12 mm diam.</td>
<td>10 meters</td>
</tr>
<tr>
<td>849</td>
<td>Scoops, polythene, set of 4 assorted sizes</td>
<td>4 sets</td>
<td>4</td>
</tr>
<tr>
<td>850</td>
<td>Sheet polythene, 150 x 75 cm each sheet, thickness 1.5 mm</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>851</td>
<td>Spatulas, polythene</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>852</td>
<td>Stirrer polythene, 3-bladed propeller</td>
<td>6 mm rod, 450 mm long</td>
<td>3</td>
</tr>
<tr>
<td>853</td>
<td>Stoppers polythene interchangeable size</td>
<td>C 7</td>
<td>20</td>
</tr>
<tr>
<td>854</td>
<td>- ditto</td>
<td>C 10</td>
<td>20</td>
</tr>
<tr>
<td>855</td>
<td>- ditto</td>
<td>C 12</td>
<td>20</td>
</tr>
<tr>
<td>856</td>
<td>- ditto</td>
<td>C 14</td>
<td>20</td>
</tr>
<tr>
<td>857</td>
<td>- ditto</td>
<td>C 19</td>
<td>20</td>
</tr>
<tr>
<td>858</td>
<td>- ditto</td>
<td>C 24</td>
<td>10</td>
</tr>
<tr>
<td>859</td>
<td>- ditto</td>
<td>C 29</td>
<td>10</td>
</tr>
<tr>
<td>860</td>
<td>Syphon, carboy, polythene, selfpriming</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>861</td>
<td>Syringes, nylon</td>
<td>2 ml</td>
<td>4</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>862</td>
<td>Syringes, nylon</td>
<td>5 ml</td>
<td>4</td>
</tr>
<tr>
<td>863</td>
<td>- ditto -</td>
<td>10 ml</td>
<td>3</td>
</tr>
<tr>
<td>864</td>
<td>- ditto -</td>
<td>12 ml</td>
<td>3</td>
</tr>
<tr>
<td>865</td>
<td>Tanks with Spigot, polythene, capacity</td>
<td>120 l</td>
<td>2</td>
</tr>
<tr>
<td>866</td>
<td>Cover for No. 865 above</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>867</td>
<td>Tape, adhesive plastic, 25 mm wide, roll of 65 meters</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>868</td>
<td>Tiles, spotting, P.V.C., 12 holes</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>869</td>
<td>Trays, plastic, 30 x 50 cm</td>
<td>50</td>
<td>x</td>
</tr>
<tr>
<td>870</td>
<td>Tubes, centrifuge, conical, hard, heat resistant, polypropylene</td>
<td>15 ml</td>
<td>24</td>
</tr>
<tr>
<td>871</td>
<td>- ditto -</td>
<td>45 ml</td>
<td>7</td>
</tr>
<tr>
<td>872</td>
<td>Tubes centrifuge, round bottom, polypropylene</td>
<td>18 ml</td>
<td>7</td>
</tr>
<tr>
<td>873</td>
<td>- ditto -</td>
<td>50 ml</td>
<td>7</td>
</tr>
<tr>
<td>874</td>
<td>Tubes T, vinyl plastic, bore</td>
<td>6 mm</td>
<td>20</td>
</tr>
<tr>
<td>875</td>
<td>- ditto - bore</td>
<td>12 mm</td>
<td>20</td>
</tr>
<tr>
<td>876</td>
<td>Tubes Y, vinyl plastic, bore</td>
<td>8 mm</td>
<td>20</td>
</tr>
<tr>
<td>877</td>
<td>- ditto - bore</td>
<td>12 mm</td>
<td>20</td>
</tr>
<tr>
<td>878</td>
<td>Tubing, P.V.C., translucent, elastic grade</td>
<td>6 mm</td>
<td>9 m</td>
</tr>
<tr>
<td>879</td>
<td>- ditto -</td>
<td>8 mm</td>
<td>18 m</td>
</tr>
<tr>
<td>880</td>
<td>- ditto -</td>
<td>11 mm</td>
<td>18 m</td>
</tr>
<tr>
<td>881</td>
<td>- ditto -</td>
<td>13 mm</td>
<td>18 m</td>
</tr>
<tr>
<td>882</td>
<td>- ditto -</td>
<td>18 mm</td>
<td>9 m</td>
</tr>
<tr>
<td>883</td>
<td>Washer, pipette, automatic, polythene, complete unit</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
3D. Sundries
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>900</td>
<td>Acid, pump, dispenser, with lead tubing</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>901</td>
<td>Adhesive, laboratory, suitable for joining nonporous surfaces such as glass, metals, plastics, heat and water resistant, in tubes</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>902</td>
<td>Asbestolite sheet, 120 x 90 cm, acid resistant finish, thickness 110 mm</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>903</td>
<td>Asbestos mats, round, diameter 150 mm</td>
<td>25</td>
<td>x</td>
</tr>
<tr>
<td>904</td>
<td>Aspirator bulb, complete with 50 cm of tubing for use with wash-bottles, burettes, etc.</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>905</td>
<td>Bossheads, right angle type to take rods up to 20 mm</td>
<td>50</td>
<td>x</td>
</tr>
<tr>
<td>906</td>
<td>Bossheads, swivel type to take rods up to 20 mm</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>907</td>
<td>Brushes, burette, handle 50 cm, diameter of head 112 mm</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>908</td>
<td>- ditto - 60 cm, diameter of head 115 mm</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>909</td>
<td>- ditto - 75 cm, diameter of head 188 mm</td>
<td>6</td>
<td>x</td>
</tr>
<tr>
<td>910</td>
<td>Brushes, cylinder, overall length 60 cm, diameter of head 122 mm</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>911</td>
<td>Brushes, test-tube, small</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>912</td>
<td>&quot;    &quot; large</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>913</td>
<td>Brushes &quot;camel hair&quot;, small</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>914</td>
<td>&quot;    &quot; large (2.5 cm)</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>915</td>
<td>Brushes, flat paint, width 1 inches</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>916</td>
<td>- ditto - 2 inches</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>917</td>
<td>Burners, &quot;Amal&quot; type (state type of gas) size: major</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>918</td>
<td>- ditto - size: major</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>919</td>
<td>Jet key for Nos. 917 and 918 above</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>920</td>
<td>Spare set of jets for above 917 and 918, four jets per set (state type of gas)</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>921</td>
<td>Burner mekea (state type of gas)</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>922</td>
<td>Burner support for attaching to retortstand</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>923</td>
<td>Caliper, for external and internal measurement to 15 cm complete with vernier and lock</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>924</td>
<td>Clamps, hose, hoffman, screw type, extra large size</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>925</td>
<td>Clamps, laboratory universal type, capable of retaining objects from 2 mm to 90 mm diam</td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>926</td>
<td>Clamps, beaker</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>927</td>
<td>Clips, Hoffman, screw type, hinged bottom bar,</td>
<td>20 mm</td>
<td>50 x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>27 mm</td>
<td>20 x</td>
</tr>
<tr>
<td>929</td>
<td>- ditto -</td>
<td>32 mm</td>
<td>20 x</td>
</tr>
<tr>
<td>930</td>
<td>Clips, Mohr, tubing, length</td>
<td>60 mm</td>
<td>20 x</td>
</tr>
<tr>
<td>931</td>
<td>Corks, first quality, bag of 1500 (one thousand five hundred) varying in at least 15 sizes between 6 mm minimum diameter and 70 mm minimum diameter (approx. 100 of each size)</td>
<td>1 bag</td>
<td>x</td>
</tr>
<tr>
<td>932</td>
<td>Cork-boring drill, hand operated, bench model, complete with 1 set of 10 different interchangeable drills</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>933</td>
<td>Sharpener for cork-boring drills (ref. to 932 above)</td>
<td>2 each</td>
<td>x</td>
</tr>
<tr>
<td>934</td>
<td>Cork rings for supporting round-bottom flasks, external diameter</td>
<td>115 mm</td>
<td>10 x</td>
</tr>
<tr>
<td>935</td>
<td>- ditto - external diameter</td>
<td>155 mm</td>
<td>10 x</td>
</tr>
<tr>
<td>936</td>
<td>Cotton wool, best quality</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>937</td>
<td>Counter, revolutions, spindle type for intermittent use, up to 3000 rpm</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>938</td>
<td>Drill, electric, portable model, to take drills to 100 mm, 1/2 hp model (State: voltage..cycles...and AC or DC)</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>939</td>
<td>Drills, high speed quality, complete set containing the following sizes: 1 mm, 1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>940</td>
<td>Element charts, 50 cm x 40 cm approx. showing atomic weights and numbers</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>941</td>
<td>Filter adapters, rubber conical shaped, mean diameter</td>
<td>20 mm</td>
<td>5 x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>30 mm</td>
<td>5 x</td>
</tr>
<tr>
<td>943</td>
<td>- ditto -</td>
<td>40 mm</td>
<td>5 x</td>
</tr>
<tr>
<td>944</td>
<td>- ditto -</td>
<td>50 mm</td>
<td>5 x</td>
</tr>
<tr>
<td>945</td>
<td>Filter papers, &quot;Whatman&quot; No. 1</td>
<td>55 mm</td>
<td>10 x</td>
</tr>
<tr>
<td>946</td>
<td>Filter papers, &quot;Whatman&quot; No. 2, box of 100 sheets, diameter</td>
<td>125 mm</td>
<td>200 x</td>
</tr>
<tr>
<td></td>
<td>- ditto -</td>
<td>70 mm</td>
<td>x</td>
</tr>
<tr>
<td>948</td>
<td>- ditto -</td>
<td>150 mm</td>
<td>10 x</td>
</tr>
<tr>
<td>949</td>
<td>- ditto -</td>
<td>185 mm</td>
<td>10 x</td>
</tr>
<tr>
<td>950</td>
<td>Filter papers, &quot;Whatman&quot; No. 5 box of 100 sheets, diameter</td>
<td>150 mm</td>
<td>20 x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>951</td>
<td>Filter papers &quot;Whatman&quot; No. 40 base of 100 sheets, diameter</td>
<td>150 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>952</td>
<td>Filter papers, &quot;Whatman&quot; No. 41, box of 100 sheets, diameter</td>
<td>70 mm 50</td>
<td>x</td>
</tr>
<tr>
<td>953</td>
<td>- ditto -</td>
<td>90 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>954</td>
<td>- ditto -</td>
<td>110 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>955</td>
<td>Filter papers, &quot;Whatman&quot; No. 42, box of 100 sheets, diameter</td>
<td>55 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>956</td>
<td>- ditto -</td>
<td>70 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>957</td>
<td>- ditto -</td>
<td>90 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>958</td>
<td>- ditto -</td>
<td>110 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>959</td>
<td>- ditto -</td>
<td>125 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>960</td>
<td>Filter papers &quot;Whatman&quot; No. 44, box of 100 sheets, diameter</td>
<td>90 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>961</td>
<td>Filter papers &quot;Whatman&quot; No. 50, box of 100 sheets, diameter</td>
<td>90 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>962</td>
<td>- ditto -</td>
<td>125 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>963</td>
<td>Filter paper, qualitative sheets,</td>
<td>100</td>
<td>x</td>
</tr>
<tr>
<td>964</td>
<td>Filter paper tablets, &quot;Whatman&quot;, box of 100 tablets</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>965</td>
<td>Filter, Pasteur Chamberland, fineness &quot;F&quot;</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>966</td>
<td>Filter pump for attaching to water tap either plastic or metal construction</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>967</td>
<td>First-aid kit suitable for a laboratory, complete self-contained unit, easily accessible</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>968</td>
<td>Gauzes, wire squares with asbestos centers</td>
<td>25</td>
<td>x</td>
</tr>
<tr>
<td>969</td>
<td>Glass blowing tools, set of 6 pieces</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>970</td>
<td>Glass cutter - hot wire</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>971</td>
<td>Heating wires for glass cutter No. 970</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>972</td>
<td>Glass cutter for tubing</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>973</td>
<td>Glass cutting diamond, mounted in metal head</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>974</td>
<td>Glass cutting knife</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>975</td>
<td>Glass heads, approx. 4 mm diameter</td>
<td>1 kg</td>
<td>x</td>
</tr>
<tr>
<td>976</td>
<td>Glass wool</td>
<td>2 kg</td>
<td>x</td>
</tr>
<tr>
<td>977</td>
<td>Gloves, rubber, medium weight, size 8 (medium size)</td>
<td>5 pairs</td>
<td>x</td>
</tr>
<tr>
<td>978</td>
<td>Gloves, rubber, medium weight, size 9 (large size)</td>
<td>5 pairs</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>979</td>
<td>Hacksaw, to take 25 cm blades</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>980</td>
<td>Blades, 25 cm for No. 979 above</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>981</td>
<td>Hammer, carpenters, weight, 400 g</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>982</td>
<td>Keys, Allen, set of 10 small sizes</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>983</td>
<td>Labels, bottle, self adhesive, approx.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 x 50 mm Box of 500 labels</td>
<td>5 boxes</td>
<td>x</td>
</tr>
<tr>
<td>984</td>
<td>Laboratory Scadding connectors (90°)</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>985</td>
<td>- ditto - adapters (45°)</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>986</td>
<td>- ditto - (60°)</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>987</td>
<td>- ditto - (90°)</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>988</td>
<td>- ditto - swivel adapter</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>989</td>
<td>- ditto - setscrews</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>990</td>
<td>- ditto - key (for setscrews)</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>991</td>
<td>- ditto - Rods 15 cm x 12.5 mm</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>992</td>
<td>- ditto - 30 cm x 12.5 mm</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>993</td>
<td>- ditto - 80 cm x 12.5 mm</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>994</td>
<td>- ditto - 90 cm x 12.5 mm</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>995</td>
<td>- ditto - 120 cm x 12.5 mm</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>996</td>
<td>- ditto - 150 cm x 12.5 mm</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>997</td>
<td>- ditto - foot circular</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>998</td>
<td>- ditto - foot universal</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Items 984 to 998 inclusive should be purchased from the same source.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>999</td>
<td>Lubricant stopcock, 50-g tin</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1000</td>
<td>Magnifier, double lens, x 4 and x 10, pocket type</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1001</td>
<td>Pencils, glass writing, four different colors</td>
<td>50</td>
<td>x</td>
</tr>
<tr>
<td>1002</td>
<td>Platinum foil, 0.05 mm thick, 40 x 40 mm</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1003</td>
<td>Platinum wire, 0.4 mm approx. diameter</td>
<td>50 cm</td>
<td>x</td>
</tr>
<tr>
<td>1004</td>
<td>Pliers, with insulated handles, 20 cm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1005</td>
<td>Racks, wooden, test-tube, 10 holes, 20 mm each</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1006</td>
<td>Rings, retort stand, fitted with bossheads, diameter 60 mm</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1007</td>
<td>Rubber teats for droppers</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1008</td>
<td>Rubber policeman, for use with glass rods 8 mm</td>
<td>50</td>
<td>x</td>
</tr>
<tr>
<td>1009</td>
<td>Scissors, stainless steel, 18 cm long</td>
<td>5</td>
<td>x</td>
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<tr>
<td>1010</td>
<td>Screwdrivers, insulated, plastic handle, set of 3 sizes: 100 mm, 150 mm, 200 mm</td>
<td>2</td>
<td>x</td>
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<tr>
<td>1011</td>
<td>Soldering iron, electrical, small head suitable for electrical connections</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>(State voltage...AC or DC...)</td>
<td></td>
<td></td>
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<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1012</td>
<td>Solder, resin cored</td>
<td>250 g</td>
<td>x</td>
</tr>
<tr>
<td>1013</td>
<td>Spanner, set of all steel, double ended, in 10 sizes, from 5 to 15 mm</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1014</td>
<td>Spatula, Chaffey pattern, nickel, length 100 mm</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1015</td>
<td>Spatula Horn, length 200 mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1016</td>
<td>Spatula, palette knife, stainless steel, length 300 mm</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>1017</td>
<td>Stand, circular top, 500 mm high</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>1018</td>
<td>Pipette stand to hold 12 pipettes horizontally, self-standing</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>1019</td>
<td>Retort stand, rod 50 cm x 10 mm</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1020</td>
<td>- ditto - rod 75 cm x 12 mm</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1021</td>
<td>- ditto - rod 100 cm x 15 mm</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1022</td>
<td>Stoppers, solid rubber, having a 1 in 8 taper, of best quality rubber, an assortment containing 50 each of the following sizes: 5, 7, 9, 11, 13, 17, 21, 25, 29 and 33.</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1023</td>
<td>Stoppers, solid rubber</td>
<td>Size 41 20</td>
<td>x</td>
</tr>
<tr>
<td>1024</td>
<td>- ditto -</td>
<td>Size 49 10</td>
<td>x</td>
</tr>
<tr>
<td>1025</td>
<td>- ditto -</td>
<td>Size 57 5</td>
<td>x</td>
</tr>
<tr>
<td>1026</td>
<td>- ditto -</td>
<td>Size 67 2</td>
<td>x</td>
</tr>
<tr>
<td>1027</td>
<td>- ditto -</td>
<td>Size 76 2</td>
<td>x</td>
</tr>
<tr>
<td>1028</td>
<td>- ditto -</td>
<td>Size 86 12</td>
<td>x</td>
</tr>
<tr>
<td>1029</td>
<td>Support burettes porcelain</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>1030</td>
<td>Support for 6 funnels</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>1031</td>
<td>Test papers, books of 20 leaves, litmus</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1032</td>
<td>- ditto -</td>
<td>multirange 20</td>
<td>x</td>
</tr>
<tr>
<td>1033</td>
<td>Tongs, Fisher, for use with basin and dishes from 70 mm to 125 mm</td>
<td>3</td>
<td>x</td>
</tr>
<tr>
<td>1034</td>
<td>Tongs, Fisher, for flasks</td>
<td>3</td>
<td>x</td>
</tr>
<tr>
<td>1035</td>
<td>Tongs, Fisher, for beakers</td>
<td>3</td>
<td>x</td>
</tr>
<tr>
<td>1036</td>
<td>Tongs, crucible</td>
<td>4</td>
<td>x</td>
</tr>
<tr>
<td>1037</td>
<td>Tongs, furnace, long handled</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1038</td>
<td>Triangles, pipe-clay</td>
<td>50 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>1039</td>
<td>- ditto -</td>
<td>65 mm 10</td>
<td>x</td>
</tr>
<tr>
<td>1040</td>
<td>Triangles, silica</td>
<td>40 mm 5</td>
<td>x</td>
</tr>
<tr>
<td>1041</td>
<td>- ditto -</td>
<td>50 mm 5</td>
<td>x</td>
</tr>
<tr>
<td>1042</td>
<td>Tripods, iron</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1043</td>
<td>Tripods, concentrating rings</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1044</td>
<td>Tubing, rubber with reinforced ends for Bunsen burners</td>
<td>60 cm</td>
<td>30</td>
</tr>
<tr>
<td>1045</td>
<td>- ditto -</td>
<td>90 cm</td>
<td>20</td>
</tr>
<tr>
<td>1046</td>
<td>Tubing, rubber, red, best quality normal wall thickness, coil of 20 meters internal diameter</td>
<td>6 mm</td>
<td>1</td>
</tr>
<tr>
<td>1047</td>
<td>- ditto -</td>
<td>8 mm</td>
<td>1</td>
</tr>
<tr>
<td>1048</td>
<td>- ditto -</td>
<td>10 mm</td>
<td>1</td>
</tr>
<tr>
<td>1049</td>
<td>- ditto -</td>
<td>15 mm</td>
<td>1</td>
</tr>
<tr>
<td>1050</td>
<td>Tubing rubber, pressure, with canvas reinforced wall, coil of 20 meters, internal diameter</td>
<td>5 mm</td>
<td>2</td>
</tr>
<tr>
<td>1051</td>
<td>Wrench, adjustable, medium size</td>
<td>30 cm long</td>
<td>1</td>
</tr>
<tr>
<td>1052</td>
<td>Wrench, stilsen,</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3E. Large Equipment
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1100</td>
<td>Air compressor and vacuum pump, Edwards, model RB 4, complete with base plate and 1/3 h.p. motor (State: voltage... cycles... AC or DC.... phases.......)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1101</td>
<td>Spare set of vanes for No. 1100 above</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1102</td>
<td>Air pump, portable, piston type, 1/4 h.p. electric motor, complete with air reservoir and pressure gauge (State: voltage... cycles... AC or DC.....)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1103</td>
<td>Spare drive belts for No. 1102 above</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>1104</td>
<td>Lubricating oil for No. 1100 and 1102 above (SAE 10)</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>1105</td>
<td>Balance, analytical, single pan, air damped, capacity 200 g, accuracy 0.1 mg, optical scale readable to 0.1 covering range up to 10 mg, automatic taring device to at least 15 g, minimum pan diam. 10 cm, dial operated weights 200 g to 10 mg (State voltage...) The following manufacturers produce balances corresponding to the above specifications: Sartorius, Mettler Stanton, Ainsworth, Mondial, Oertling and others.</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1106</td>
<td>Balance, weighing, precision, capacity 500 g, pans 10 cm diam., visual scale 0 - 2 g in 200 divisions, magnetic damping, accuracy 20 mg</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>1107</td>
<td>Plastic housing for No. 1106 above</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>1108</td>
<td>Balance, capacity 3 kg, optical, scale range 1 kg, automatic shifter weights to 2 kgs, reading to 0.2 g, accuracy ± 0.2 g, magnetic damping, taring device to 500 g (State voltage.......)</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1109</td>
<td>Analytical weights, class A, stainless steel or Rhodium plated, 2 x 200 g, 100 g, 50 g, 2 x 20 g, 10 g, 5 g, 2 x 2 g and 1 g to be included in set. Fractions not required</td>
<td>1 set</td>
<td>x</td>
</tr>
<tr>
<td>1110</td>
<td>Calcimeter, Collins, for estimation of carbonates in soils</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1111</td>
<td>Flasks, 150 ml for No. 1110 above</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>1112</td>
<td>Acid holding vials for No. 1110 above</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>1113</td>
<td>Calculating slide rule for No. 1110 above</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1114</td>
<td>Centrifuge, International No.1 Model CM (Stage voltage.... cycles....)</td>
<td>1</td>
<td>x(US)</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1115</td>
<td>Head, eight places, for above No. 1114 to take 50 ml or 15 ml tubes</td>
<td>1</td>
<td>x(US)</td>
</tr>
<tr>
<td>1116</td>
<td>Trunion rings, 50 ml for above No. 1115</td>
<td>10</td>
<td>x(US)</td>
</tr>
<tr>
<td>1117</td>
<td>Trunion rings, 15 ml for above No. 1116</td>
<td>10</td>
<td>x(US)</td>
</tr>
<tr>
<td>1118</td>
<td>Metal shields, 50 ml for above No. 1116</td>
<td>10</td>
<td>x(US)</td>
</tr>
<tr>
<td>1119</td>
<td>Metal shields, 15 ml for above No. 1115</td>
<td>10</td>
<td>x(US)</td>
</tr>
<tr>
<td>1120</td>
<td>Rubber cushions for above No. 1118 (50 ml)</td>
<td>10</td>
<td>x(US)</td>
</tr>
<tr>
<td>1121</td>
<td>Rubber cushions for above No. 1119 (15 ml)</td>
<td>10</td>
<td>x(US)</td>
</tr>
<tr>
<td>1122</td>
<td>Carbon brushes, complete set for No. 1114 above</td>
<td>2</td>
<td>x(US)</td>
</tr>
</tbody>
</table>

**Note:** Items 1114 to 1122 inclusive must all be purchased from the same source. Other suitable makes might be MSE, Roto-Silenta, Pirouette, Gallenkamp, Prolabo, and others.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1123</td>
<td>Conductivity Bridge, direct reading, portable model, completely transistorized and tropicalized, suitable for the measurement of conductivity of solutions, waters, soil extracts, soil suspensions and soil pastes</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>1124</td>
<td>Conductivity cell, suck-up type for above No. 1123</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>1125</td>
<td>Spare complete set of batteries for No. 1123 above</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>1126</td>
<td>Soil cup, US Bureau of Soils type, for use with No. 1123</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

**Note:** Items Nos. 1123 to 1125 must be purchased from the same source and preferably item 1126.

<table>
<thead>
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<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1127</td>
<td>Deionizer yield varying from 4000 liters between re-charges for water with a maximum of 50 ppm total hardness down to 1000 liters for 200 ppm total hardness water (Stage voltage...AC or DC...)</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>1128</td>
<td>Spare cartridge for No. 1127 above</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>1129</td>
<td>Pre-filter for use with Deionizer</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1130</td>
<td>Water distillation apparatus, electrically heated (Stage voltage...AC or DC...) capacity 4.5 liters per hour, 3 KW heating element</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1131</td>
<td>Heating elements with safety device for above No. 1130</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>1132</td>
<td>Baffle cup for 1130 above</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1133</td>
<td>Glass lid for 1130 above</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1134</td>
<td>Laughborough Water still, all glass, fully automatic with 3 KW heating element, output 4 liters per hour (State voltage... )</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1135</td>
<td>Spare heating element complete with cut-out for No. 1134 above (State voltage... )</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>1136</td>
<td>Digestion apparatus, semi-micro, complete with size 1 Silumin heaters 65 mm diam., to take 50 or 100 ml flanks, 6 unit model with variable heat control, 1800 watt total load, with support and glass fume tube (State voltage)</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>1137</td>
<td>Spare hot plate complete with heating element size 1, but without casing for No. 1136 above (State voltage... )</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1138</td>
<td>Spare heating elements, size 1 for No. 1136 above (State voltage... )</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>1139</td>
<td>Spare glass fume extractor tube for semi-micro apparatus No. 1136 above</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Note: Items 1136 to 1139 above must all be purchased from same source. Similar equipment may be available from most laboratory suppliers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1140</td>
<td>Filter funnel apparatus for soil paste</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1141</td>
<td>Flow meter for gasses suitable for measuring a flow of gas from 25 to 200 liters per hour, arbitrary scale suitable for use with propane, butane or air, for bench mounting tube connection</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1142</td>
<td>Hot plate, electrically heated, bench model, totally enclosed elements, 20 cm diam., with variable control switch, single phase, 1.5 KW (State: voltage... AC or DC... )</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1143</td>
<td>Spare set of elements for No. 1142 above (State voltage... AC or DC... )</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1144</td>
<td>Hot plate, electrically heated, for mounting on a retort stand, 15 cm diam., variable control switch, totally enclosed elements, 750 watts, single phase (State voltage... AC or DC... )</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1145</td>
<td>Spare set of elements for No. 1144 above (State voltage... AC or DC... )</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1146</td>
<td>Hot plate, large, rectangular (45 cm, by 30 cm), with variable control, electrically heated, for single phase current, four elements each 500W making a total loading of 2 KW (State voltage... AC or DC....)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1147</td>
<td>Spare elements for 1146 above, 500 watt (State voltage.... AC or DC....)</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>1148</td>
<td>Kjeldahl apparatus, electric, 6 units, for digestion and distillation, adjustable rack for various size flasks.</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1149</td>
<td>Semi-micro Kjeldahl apparatus for steam distillation, consisting of a 100 ml flask with B. 19 socket joint, distillation head with B. 10 socket joint, B.19 cone and 18/9 BS ball, Liebig condenser, 150 mm effective length with 18/9 BS cup joint, clip JC 9/18 and funnel plug with B10 cone</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>1150</td>
<td>Kjeldahl flasks, 100 ml with B. 19 socket joint</td>
<td>60</td>
<td>10</td>
</tr>
<tr>
<td><strong>Note:</strong> Items 1149 and 1150 above should be purchased from same source. Another make with the above minimum specification may be acceptable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1151</td>
<td>Muffle furnace for operation at temperatures up to 1100º C. for single phase AC current, 1000ºC fuse, internal dimensions 380 mm x 190 mm x 135 mm, built in indicating pyrometer, power relay and energy regulator, and swing up door (State voltage...)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1152</td>
<td>Spare temperature fuse (1000ºC) for No. 1151 above</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>1153</td>
<td>Spare temperature fuse (1100ºC) for No. 1151</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>1154</td>
<td>Twin bore sleeve for temperature fuse in furnace, spare for No. 1151 above</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>1155</td>
<td>Thermo couple element for No. 1151 above</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Note:</strong> Items Nos. 1151 to 1155 should be purchased from same source. An item of similar specifications may be purchased from most laboratory suppliers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1156</td>
<td>Oven, gravity connection model, range room temperature to 200ºC, with thermometer graduated in °C, electrically heated, load approximately 1 KW, single phase operation AC, internal dimensions 60 x 50 x 50 cm, 2 shelves (State voltage....)</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1157</td>
<td>pH meter, suitable for single phase mains operation, two pH scales covering the range of 0 to 14 pH reading to 0.05 unit accuracy, complete with built-in voltage stabilizer. Automatic temperature compensation over the range 0 to 100°C. Complete with normal type glass electrode and wick-type Calomel electrode, suitable for measuring pH of solutions or soil suspensions (State voltage... cycles AC or DC)</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>1158</td>
<td>Spare glass electrodes for No. 1151 above</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>1159</td>
<td>Spare Calomel electrodes for No. 1157 above</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Nos. 1157 to 1159 must be purchased from the same source. Makes to that quoted might be: Beckman, Pye, Cambridge, Coleman, Hartmans-Braun, Marconi, Knick, Lange, Prolabo provided the specifications corresponding to above.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1160</td>
<td>pH meter, portable, battery operated model, transistorized, two scales covering the range 0 to 14 pH. Manually operated temperature compensator covering the range 0 to 100°C, measurement to 0.1 pH units. The instrument is to be supplied complete in a case suitable for field use which should also contain the electrodes, buffer solution, distilled water, potassium chloride solution, small beakers and a thermometer. Complete set.</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>1161</td>
<td>Spare glass electrodes for above No. 1160</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>1162</td>
<td>Spare calomel electrodes, fiber type for above No. 1160</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>1163</td>
<td>Spare complete set of batteries for No. 1160 above</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>1164</td>
<td>Photometer flame, Dr. B. Lange Model 6, complete with pointer galvanometer, compressor, gas pressure regulator, atomizer and 5 interference type filters for Ca, K, Mg, Na and Li (State voltage.... cycles.... AC or DC....)</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>1165</td>
<td>Burner, spare for No. 1164 above</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>1166</td>
<td>Atomizer, complete, spare for No. 1164 above</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>1167</td>
<td>Photocell, spare for No. 1164 above</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1168</td>
<td>Magnesium double filter for No. 1164 above</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>1169</td>
<td>Set of five interference type filters for Ca, K, Na, Mg and Li, spares for No. 1164 above</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>1170</td>
<td>Petrol gas generator for use with No. 1164 above (State voltage... cycles... AC or DC....)</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

**Note:** Items 1164 to 1170 above should be purchased from the same source. Alternate sources might be: Eel, Gallenkamp, Kipp, Perkin Elmer and others, **provided the specification is the same or better.**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1171</td>
<td>Pye Scalamp, double reflection spot galvanometer, resistance 1400 ohms with sensitivity switch positions: direct X1, X 0.05, X 0.01 and shorted. This instrument is for use with No. 1164 above and may not be replaced by another make (State voltage)</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>1172</td>
<td>Blank scale, spare for No. 1171 above</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>1173</td>
<td>Repair kit for No. 1171 above</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>1174</td>
<td>Spare lamps for No. 1171 above</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

**Note:** Items 1171 to 1174 must be purchased from the same source.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1175</td>
<td>Spectrophotometer - Colourimeter Dr. B. Lange, for use over the range 400 to 700 millimicrons by continuous adjustment, suitable for use with tubes or rectangular cells and complete with holders for both types of cells (State voltage... AC or DC...)</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>1176</td>
<td>Cuvettes, 10 ml for use with No. 1175 above</td>
<td>60</td>
<td>14</td>
</tr>
<tr>
<td>1177</td>
<td>Rectangular cells for No. 1175 above</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>1178</td>
<td>Lamp, 6 V, 10 W for No. 1175 above</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>1179</td>
<td>Filter, normal type, spare for No. 1175 above</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>1180</td>
<td>Filter, interference type, spare for No. 1175 above</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

**Note:** Above items Nos. 1175 to 1180 should be purchased from the same source. Alternate sources might be: Riele, Klett-Summerson, Spekker, Unicam, Beckman, Bausch-Lamb, Coleman, Gallenkamp, Prolabo and others, **provided specifications are the same or better.**
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1181</td>
<td>Platinum crucibles, complete with lid capacity 40 ml, approximate weight with lid 40 g</td>
<td>4</td>
<td>x</td>
</tr>
<tr>
<td>1182</td>
<td>Wooden form for reshaping platinum crucibles No. 1181 above</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1183</td>
<td>Platinum dishes, 50 ml capacity</td>
<td>4</td>
<td>x</td>
</tr>
<tr>
<td>1184</td>
<td>Refrigerator, electrically operated, capacity approximately 300 liters, suitable for use in tropical countries (State voltage... cycles... AC or DC...)</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1185</td>
<td>Sand bath, electrically heated, 45 x 25 cm, with variable heat control switch (State voltage... AC or DC...)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1186</td>
<td>Replacement element for 1185 above</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1187</td>
<td>Sieves brass, 20 cm diam., ASTM or BS or equivalent grade. Hole size 4 mm No. 5</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>- ditto - 2 mm No. 10</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1189</td>
<td>- ditto - 0.84 mm No. 20</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1190</td>
<td>- ditto - 0.42 mm No. 40</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1191</td>
<td>- ditto - 0.25 mm No. 60</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1192</td>
<td>- ditto - 0.21 mm No. 70</td>
<td>5</td>
<td>x</td>
</tr>
<tr>
<td>1193</td>
<td>- ditto - 0.15 mm No. 100</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1194</td>
<td>- ditto - 0.088 mm No. 170</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1195</td>
<td>- ditto - 0.072 mm No. 325</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1196</td>
<td>Pan brass to fit above Nos. 1187 to 1195</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1197</td>
<td>Lid, brass with handle to fit No. 1196 above</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Items 1187 to 1197 above should all be purchased from the same source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1198</td>
<td>Sieve set for mechanical analysis according to the method of Bureau of Chemistry and soils 2 3/8 x 2 1/8 inches</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1199</td>
<td>Sieve shaker, variable speed with timer</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1200</td>
<td>Shaking machine, suitable for shaking flasks, bottles, jars, etc. in a reciprocating motion (State voltage... cycles... AC or DC)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1201</td>
<td>Soil hydrometer, improved pattern range-5g to 60g soil colloids per liter, for mechanical analysis</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>1202</td>
<td>Hydrometer jar, Bouyoucos pattern, graduated at 1130 and 1205 ml at 20°C, for mechanical analysis</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>1203</td>
<td>Hydrometer jar bath, Magni-Wirl, 10 jars capacity, constant temperature</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1204</td>
<td>Mechanical analysis stirrer (State voltage... cycles...AC or DC...)</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1205</td>
<td>Spare soil dispersion cup for No. 1204 above</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>1206</td>
<td>Spare disc paddle for No. 1204 above</td>
<td>50</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Items 1204 to 1206 should be purchased from the same source.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1207</td>
<td>Sampling pipette, 25 ml, 2 way stopcock for mechanical analysis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1208</td>
<td>Shaw pipette rack, vertical centimeter scale, for the pipette 1207 above</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1209</td>
<td>Soil moisture box, aluminium, diam. 63 mm, height 45 mm</td>
<td>60</td>
<td>8</td>
</tr>
<tr>
<td>1210</td>
<td>Steam generator, copper, with outlet tube and glass gauge, capacity 4 liters</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1211</td>
<td>Stirrer, electrically driven, laboratory model, variable speed control, changeable stirring rotor, suitable for attachment to a retort stand (State voltage... cycles... AC or DC)</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1212</td>
<td>Stirring rotor for No. 1211 above (stainless steel)</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1213</td>
<td>Stirrer, laboratory, magnetic, bench model, variable speed control (State voltage... cycles... AC or DC....)</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1214</td>
<td>Magnetized followers polythene encased, each 2 cms long for use with 1213 above</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1215</td>
<td>Thermograph, clockwork, weekly rewind and change sheet, range 10 to 40°C. Complete with 200 sheets and 2 bottles ink</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1216</td>
<td>Testing meter, AVO Model 7 x, specially tropicalized</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>1217</td>
<td>Timer interval clockwork model, to time all intervals from 0 to 60 minutes in 1 second intervals</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1218</td>
<td>Plain stop-watch, divisions 1/5 sec.</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1219</td>
<td>Variable transformer, output 3 Amps, complete with voltmeter and mains-switch, socket outlet and cable (State input voltage... cycles..., AC or DC..., output voltage range:...)</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1220</td>
<td>Water-bath, electrically heated, thermostatically controlled, model capable of maintaining temperatures to ± 1°C, size 760 mm long x 270 mm wide x 125 mm deep or other shape giving approximately the same surface area, in stainless steel, with flat cover having 12 holes each 100 mm diam. and fitted with stainless steel concentric rings, complete with temperature dial, drain cock and switch (State voltage... AC or DC...)</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1221</td>
<td>Spare heating element for No. 1220 above (State voltage... AC or DC...)</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Items 1220 and 1221 should be purchased from same source.

| 1222    | Water-heater, electric, storage capacity 20 liters, adjustable thermostatic control, 1.5 KW model (State voltage... AC or DC...)                                                                                 | 1        | x              |
4. Specialized Equipment for Soil Physics
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>Aggregate shaker, 6 trays, 20 x 20 in., variable speed</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1301</td>
<td>Beakers, aluminium, low form, 250 ml</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1302</td>
<td>Bottles, specific gravity capacity 25 ml</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1303</td>
<td>- ditto -</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1304</td>
<td>- ditto -</td>
<td>10</td>
<td>x</td>
</tr>
<tr>
<td>1305</td>
<td>Constant, temperature bath temp. up to 100°C</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1306</td>
<td>Crusher, 3h. p., openings from 1/1 in. to 1/4 in.</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1307</td>
<td>Desintegration test set, with specimen mold and samples ejector</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>1308</td>
<td>Desiccator, vacuum, 250 m m with porcelain plate and external sleeve</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1309</td>
<td>Field parafin warmer, fuel gasoline kerosene or white gas</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1310</td>
<td>Gas pressure regulator for compressed air, delivery up to 225 psi, two-stage</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1311</td>
<td>Gas pressure regulator, for compressed air, delivery up to 15 psi, two-stage</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1312</td>
<td>Glass tubing 30 mm inside diameter</td>
<td>5 m</td>
<td>x</td>
</tr>
<tr>
<td>1313</td>
<td>Hydrometer-improved soil hydrometer, range -5 + 60 g of colloids</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>1314</td>
<td>Hydrometer jar graduated to contain 1130 and 1205 ml, Bouyoucos pattern</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>1315</td>
<td>Hydrometer jar graduated to contain 1000 ml</td>
<td>20</td>
<td>8</td>
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<tr>
<td>1316</td>
<td>Hydrometer jar bath, magni-whirl 38 x 15 in., ten jars capacity, constant temperature up 50°C, sensitivity ± 0.4°C.</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1317</td>
<td>Lathe, soil, motorized with rotary trimming tool</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1318</td>
<td>Level carpenter's</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1319</td>
<td>Constant water level</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1320</td>
<td>Water level indicator, battery operated and self contained, 300 ft. cable</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible Source</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1321</td>
<td>Liquid limit tester, hand operated, with brass cup and grooving tool</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1322</td>
<td>Lucite tubing, 5 in outside diameter</td>
<td>10 m</td>
<td>21</td>
</tr>
<tr>
<td>1323</td>
<td>Moisture balance, torsion type, magnetic damping, scale in terms of moistures from 0 to 100 percent in 0.2 percent divisions, infrared radiation, samples 5 or 25 g weight</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1324</td>
<td>Aluminum pans for the balance No. 1323</td>
<td>6</td>
<td>x</td>
</tr>
<tr>
<td>1325</td>
<td>Moisture boxes, aluminum, diam. 2 in. height 7/8 in</td>
<td>50</td>
<td>x</td>
</tr>
<tr>
<td>1326</td>
<td>Moisture boxes, aluminum, diam. 2 1/2 in. height 13/4 in</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1327</td>
<td>Diam. 3 in height 1 in</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1328</td>
<td>Diam. 3 1/2 in 2 in</td>
<td>20</td>
<td>x</td>
</tr>
<tr>
<td>1329</td>
<td>Moisture equivalent centrifuge, complete with control panel, tachometer, MC 407 head, sixteen soil boxes MC 408, 6000 r.p.m.</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1330</td>
<td>Bouyoucos, moisture meter, portable battery operated, 0-100 percent available moisture, designed for use with Bouyoucos soil blocks 1331</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1331</td>
<td>Bouyoucos soil block, gypsum type, pair of stainless steel electrodes in a cast of plaster of Paris, 5 ft. rubber covered leads</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1332</td>
<td>Moisture meter and density meter, nuclear test apparatus, portable, integrator with electronic circuits 2000 volts for moisture and 500 volts for density, moisture probe neutron with source of fast neutrons, and electronic with geiger tube: density probe radioactive with source of gamma rays and electronic detector</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>1333</td>
<td>Super Moisture Teller, controlled temperature, adjustable time switch, armoured thermometer, drying temperature 150° 350°F. samples 50-100g</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1334</td>
<td>Moisture Tester—calcium carbide additive, dial gauge calibrated as percentage of moisture, sensitive to 0.03g, sample weight 5g, portable</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1335</td>
<td>Moisture tester reagent, tins 1 pound for use with 1334</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>1336</td>
<td>Mortar, iron, with pestle, 2 pint capacity</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<tr>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1337</td>
<td>Mortar, porcelain, 15 cm diameter, pestle with rubber tip, wooden hand</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1338</td>
<td>Permeameter compactation, base porous stone, fittings for water inlet and outlet</td>
<td>1</td>
<td>1</td>
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<tr>
<td>1339</td>
<td>Compactation mold 1/30 cu. ft. cylinder for the permeameter 1338, internal diameter 4 inches</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1340</td>
<td>Permeameter plastic, base porous stone, 2 1/2 inches diameter and 10 inches high specimen, with piezometer tube, fittings for water inlet and outlet</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1341</td>
<td>Permeameter soil test, 1.3 inches diam. and 2.8 inches high sample, for constant or variable head permeability, fittings for water inlet and outlet</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1342</td>
<td>Penetrometer pocket, scale in tons/sq. in.or kg/sq. cm</td>
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<tr>
<td>1343</td>
<td>Plastic limit set according A.S.T.M. specifications</td>
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</tr>
<tr>
<td>1344</td>
<td>Porous plate apparatus with 4 porous plate assemblies</td>
<td>1</td>
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</tr>
<tr>
<td>1345</td>
<td>Pressure membrane apparatus with mercury differential regulators, torque-wrench and socket, hose assembly, rubber soil sample retaining rings, 50 ft. roll cellulose casing for membrane dishes,</td>
<td>1</td>
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<tr>
<td>1346</td>
<td>Sandbox apparatus to determine pF curves in the range 0.4 to 2.7, complete</td>
<td>1</td>
<td>19</td>
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<tr>
<td>1347</td>
<td>Sample splitter, stainless steel, 14 chutes</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1348</td>
<td>Sampler, field density, undisturbed samples, capacity 1/30 cubic feet</td>
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<tr>
<td>1349</td>
<td>Sampler, density tube, set with 12 tubes, head and drive hammer</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1350</td>
<td>Sieves 8 inches diameter [5/16] inches $= 7.94$ mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1351</td>
<td>3 1/2 inches $= 5.66$ mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1352</td>
<td>No. 5 $= 4.00$ mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1353</td>
<td>No. 10 $= 2.00$ mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1354</td>
<td>No. 20 $= 0.84$ mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
</tr>
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<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1355</td>
<td>No. 40 = 0.42 mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1356</td>
<td>No. 60 = 0.25 mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1357</td>
<td>No. 70 = 0.21 mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1358</td>
<td>No. 170 = 0.088 mm</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1359</td>
<td>No. 325 = 0.044 mm</td>
<td>2</td>
<td>x</td>
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<tr>
<td>1360</td>
<td>Brass pan for 1350-1359 sieves</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1361</td>
<td>Brass cover for 1350-1359 sieves</td>
<td>2</td>
<td>x</td>
</tr>
<tr>
<td>1362</td>
<td>The same size hole sieves with diameter 5 inches, 1 of each size, pan and cover</td>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>1363</td>
<td>Sieve set, mechanical analysis of soils, according to the method of the Bureau of Chemistry and Soils 2 3/8 x 2 1/8 inches</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1364</td>
<td>Sieve shaker, to accommodate 8 inch sieves, 5 stand sieves 2 inches high, variable speed and sieve adapter for 5 in.diam.sieves</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1365</td>
<td>Soil Colour Chart-Munsell</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1366</td>
<td>Soil Colour Chart for tropical soils, extra sheet</td>
<td>1</td>
<td>8</td>
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<tr>
<td>1367</td>
<td>Soil rammer, falling weight type, diam.2 inches, weight 5.5 pounds, fall 12 inches</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1368</td>
<td>Soil shrinkage apparatus, with porcelain crucible, evaporation dish and crystallizing dish</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1369</td>
<td>Soil structure meter, pneumatic, method prof. Janert</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>1370</td>
<td>Spatula, flexible steel</td>
<td>3</td>
<td>x</td>
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<tr>
<td>1371</td>
<td>Stirrer, mechanical analysis</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>1372</td>
<td>Dispersing cup for stirrer No. 1371</td>
<td>8</td>
<td>8</td>
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<tr>
<td>1373</td>
<td>Spare mixing paddles for the stirrer No. 1371</td>
<td>100</td>
<td>8</td>
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<tr>
<td>1374</td>
<td>Pipette Robinson Köhn 20 or 25 ml 2-way stepcock, for mechanical analysis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1375</td>
<td>Shaw pipette rack to support pipette No. 1374</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1376</td>
<td>Stokes law monographed, pads of 100 sheets, 8 1/2 x 11 in.</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1377</td>
<td>Tensiometers, soilmoist gauge, porous tip 5/8 inch diam., scale reading moisture of soil 12 inches length</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1378</td>
<td>24 inches length</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1379</td>
<td>36 inches length</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1380</td>
<td>48 inches length</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1381</td>
<td>Installing tool for tensiometers 12 inches length 1410</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1382</td>
<td>24 inches length 1411</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1383</td>
<td>36 inches length 1412</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>1384</td>
<td>48 inches length 1413</td>
<td>1</td>
<td>8</td>
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<tr>
<td>1385</td>
<td>Tensiometer-Agriculture moisture indicator range 0-85 percent, no calibration necessary</td>
<td>1</td>
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<tr>
<td>1386</td>
<td>Soil Thermometer, range 20°-180°F. 16 in.long, brass tip</td>
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<tr>
<td>1387</td>
<td>Thermometer maximum and minimum</td>
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<td>x</td>
</tr>
<tr>
<td>1388</td>
<td>Max-Min Soil Thermometer dial range -40°F. + 120°F. in 1°F. divisions, bulb 13 inches long</td>
<td>1</td>
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<tr>
<td>1389</td>
<td>Volumeasure (density test), based on the liquid filled balloon principle, capacity 1/20 cu.ft. minimum graduation 0.00025 cu.ft.</td>
<td>1</td>
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<tr>
<td>1390</td>
<td>Volume change test apparatus, change of volume by absorption, adsorption and loss of water, according A.S.T.M. Proceedings</td>
<td>1</td>
<td>18</td>
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<tr>
<td>1391</td>
<td>Soil volume change meter, based on the short cut method, complete</td>
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<td>8</td>
</tr>
<tr>
<td>1392</td>
<td>Warmer, paraffin, accurate temperature control, adjustable from 120° to 350°F.</td>
<td>1</td>
<td>8</td>
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<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
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<tr>
<td>002</td>
<td>Acetone</td>
<td></td>
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<tr>
<td>040</td>
<td>Bentonite, powder</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>041</td>
<td>Benzene</td>
<td></td>
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</tr>
<tr>
<td>058</td>
<td>Calcium chloride anhydrous</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>069</td>
<td>Castoilt plastic with hardener</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>070</td>
<td>Celulose acetate</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>103</td>
<td>Athanol 95 percent</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>108</td>
<td>Ethylene glycol</td>
<td></td>
<td>x</td>
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<tr>
<td>122</td>
<td>Hydrochloric acid, Sp. Gr. 1,18</td>
<td></td>
<td>x</td>
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<tr>
<td>124</td>
<td>Hydrogen peroxide, 100 Vols.</td>
<td></td>
<td>x</td>
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<tr>
<td>176</td>
<td>Paraffin wax, M. pt. 57° to 60°C.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>186</td>
<td>Phosphorus pentoxide,</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>231</td>
<td>Sodium carbonate</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>240</td>
<td>Sodium hexamethaphosphate</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>253</td>
<td>Sodium phosphate, Di H</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>273</td>
<td>Sulphuric Acid, Sp. Gr. 1,84</td>
<td></td>
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5. Specialized Equipment for Soil Microbiology
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Possible source</th>
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</thead>
<tbody>
<tr>
<td>1500</td>
<td>Auto clave, Horizontal. Double wall</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>28 in. long (inside)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 in. diam. (inside) can be ordered</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>for electric, gas or direct steam heat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1501</td>
<td>Incubator, Electric, Forced Air, Circulation,</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>30 x 30 x 35 cm inside, 37° - 110°C</td>
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<tr>
<td>1502</td>
<td>Incubator, Refrigerating, 283 cu. cm</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>5° to 50°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1503</td>
<td>Colony Counter, Quebec Spencer dark field model</td>
<td>1</td>
<td>2</td>
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<tr>
<td>1504</td>
<td>Balance, Counter type, Torsion, capacity 500 g</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1505</td>
<td>Balance, Torsion Prescription, capacity 120 gms., sensitivity 2 mg</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1506</td>
<td>Warburg Apparatus, 20 unit including glassware and manometer supports</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1507</td>
<td>Sterilizer, Arnold Type 49 x 31 x 36 cm gas heated</td>
<td>1</td>
<td>2</td>
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<tr>
<td>1508</td>
<td>Pipette Box, Cylindrical Aluminum 40 cm long x 7.5 cm diam.</td>
<td>6</td>
<td>2</td>
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<tr>
<td>1509</td>
<td>Culture Dish Box, polished copper capacity 13 dishes</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>1510</td>
<td>Sterilizer, Hot Air, Electric Despatch inside dimensions 45 x 35 x 35 cm</td>
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<td>2</td>
</tr>
<tr>
<td>1511</td>
<td>Hemacytometer, Single Improved Neubauer, Ruling, Levy complete with 2 plane cover glasses and 2 Thoma diluting pipettes</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1512</td>
<td>Clock, Interval</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1513</td>
<td>Colony Counter, Dark field, Quebec, Apha - Spencer complete with lens, Wolffhugel counting plate</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1514</td>
<td>Counter, hand tally</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1515</td>
<td>Filtering Crucibles, Fritted glass Disk High Form, Gooch Type, Pyrex. No. 4 50 ml Capacity Medium Porosity</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>1516</td>
<td>Culture Dishes, Moist Chamber Plain Cover, outside diam. 240 mm, height 85 mm</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
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<tr>
<td>1517</td>
<td>Culture Dishes, Petri, Pyrex 100 x 120 mm</td>
<td>350</td>
<td>2</td>
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<tr>
<td>1518</td>
<td>Culture Dishes, Petri Pyrex 150 x 20 mm</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>1519</td>
<td>Culture Dish Holder Neoprene Coated Wire</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>1520</td>
<td>Staining and Preparation Dish, diam. 105 mm, inside depth 45 mm</td>
<td>12</td>
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<td>1521</td>
<td>Staining and Preparation Dish, diam. 50 mm, height 32 mm</td>
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<tr>
<td>1522</td>
<td>Staining Dish, 10 grooves, 93 mm long x 70 mm wide x 48 mm high</td>
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<tr>
<td>1523</td>
<td>Staining Set, Removable glass Rack</td>
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<tr>
<td>1524</td>
<td>Culture Disk Bottom, Quadrant Felsen, Pyrex</td>
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<tr>
<td>1525</td>
<td>Drying Tubes, Calcium chloride. Two Bulb 15.5 cm x 5 mm diam</td>
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<tr>
<td>1526</td>
<td>Fermentation Tube, Durham, Apha consists of pair of culture tubes, 150 x 19 mm and 50 x 6 mm</td>
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<tr>
<td>1527</td>
<td>Fermentation Tubes, Smith, Plain Resistant glass 140 mm long, 15 mm I.D. diameter</td>
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<tr>
<td>1528</td>
<td>Fermentation Tube Support, copper</td>
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<td>1529</td>
<td>Filter Apparatus, Bacteria, Fritted Glass Pyrex</td>
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<td>1530</td>
<td>Flask, Culture, Kolle, Pyrex, capacity 320 mm</td>
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<tr>
<td>1531</td>
<td>Flask, Culture, Roux, Pyrex</td>
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<td>1532</td>
<td>Forceps, Bottle, length 250 mm</td>
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<td>1533</td>
<td>Funnels, Chemical, Ribbed, Heavy Molded Glass (rapid filtering, bacterial media) diam. 175 mm</td>
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<td>1534</td>
<td>Funnels, Porcelain, Buechner Table type, Carus with removable perforated plate diam. 187 mm</td>
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<td>1535</td>
<td>Microscope, Monocular, Bausch and Lomb Model CBV-8</td>
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<td>1536</td>
<td>Microscope Illuminator, AO-Spencer Universal</td>
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<tr>
<td>1537</td>
<td>Microscope Slides, Non Corrosive, Laboratory grade</td>
<td>Box of 72</td>
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<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<td>1538</td>
<td>Microscope Slides with Frosted Ends</td>
<td>Box of 72</td>
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<td>1539</td>
<td>Microscope Slide, Culture Single</td>
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<td>1540</td>
<td>Microscope Slide Box, Plastic Hinged Cover - for 100 slides</td>
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<td>1541</td>
<td>Microscope Slide Cover Glasses, Square size 15 mm</td>
<td>boxes 10</td>
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<td>1542</td>
<td>Pipettes, Serological, Long Tip, Kimax 1 ml capacity, 0.01 ml sub-divisions</td>
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<tr>
<td>1543</td>
<td>5 ml capacity 0.1 ml sub-divisions</td>
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<tr>
<td>1544</td>
<td>Pipettes, Serological, Short Tip Kimax 1 ml capacity, 0.1 ml subdivisions</td>
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<td>1545</td>
<td>2 ml capacity, 0.1 ml subdivisions</td>
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<tr>
<td>1546</td>
<td>5 ml capacity, 0.1 ml subdivisions</td>
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<tr>
<td>1547</td>
<td>Pipettes, Transfer, Bacteriological Flint glass &quot;Exax&quot; 5 ml capacity</td>
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<tr>
<td>1548</td>
<td>10 ml capacity</td>
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<tr>
<td>1549</td>
<td>Culture Tubes, Bacteriological, Flint Glass &quot;Exax&quot; 150 mm x 19 mm</td>
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<tr>
<td>1550</td>
<td>200 mm x 25 mm</td>
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<tr>
<td>1551</td>
<td>Culture Tubes, Bacteriological Screw Cap., Kimax 125 mm x 20 mm</td>
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<tr>
<td>1552</td>
<td>200 mm x 25 mm</td>
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<tr>
<td>1553</td>
<td>Screw Caps, Black Plastic, Rubber liners CGMI Threads 18-415</td>
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<tr>
<td>1554</td>
<td>CGMI Threads 24-410</td>
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<td>1555</td>
<td>Culture dishes, Pyrex, 100 x 15 mm, (pkgs of 72)</td>
<td>6 pkg.</td>
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<tr>
<td>1556</td>
<td>Culture dishes moist chamber 200 x 70 mm</td>
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<tr>
<td>1557</td>
<td>Culture Flask (Bottle) pyrex 269 x 337 x 625 - (pkgs of 6)</td>
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<td>1558</td>
<td>Test Tube Baskets, Stainless Steel Wire, Rectangular, 6 x 6 1/2 in</td>
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<tr>
<td>1559</td>
<td>Test Tube Support, Neoprene coated wire, length 10 1/2 in, width 4 1/2 in, height 4 1/8 in</td>
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<td>1560</td>
<td>Serological Bath, Electrically Heated and Controlled</td>
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<td>1561</td>
<td>Test Tube Racks</td>
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<tr>
<td></td>
<td>1 Wassermann type</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1562</td>
<td>1 Kalmer type</td>
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<tr>
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<td>Bottle, Dilution, Screw Cap, Kimax 200 ml capacity</td>
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<td>1564</td>
<td>Replacement Cap for Dilution Bottles (above)</td>
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<tr>
<td></td>
<td>Cat. No. 24129 (above)</td>
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<tr>
<td>1565</td>
<td>Bottle, Balsam, wide mouth, capacity 60 ml</td>
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<tr>
<td>1566</td>
<td>Inoculating Needle Holder, Kolle Type II inches long</td>
<td>12</td>
<td>2</td>
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<tr>
<td>1567</td>
<td>Slide, Agglutination Kline Test, length 3 in, width 2 1/4, thickness 1/8 in</td>
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<td>2</td>
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<tr>
<td>1568</td>
<td>Inoculating Loops, Platinum - Ruthenium</td>
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</tr>
<tr>
<td></td>
<td>- inside diam. 1 mm, B and S gage no. 28;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1569</td>
<td>- inside diam. 2 mm, B and S gage no. 28;</td>
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<td>2</td>
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<tr>
<td>1570</td>
<td>Staining Rack, Tumbler Size</td>
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<tr>
<td>1571</td>
<td>Counting Chamber, Howard, AOAC Apha</td>
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<tr>
<td>1572</td>
<td>Cover glasses for use in Cat. No. 44340 replacement, size 28 x 33 mm,thickness 0.5 mm</td>
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<tr>
<td>1573</td>
<td>Thickness 1.0 mm</td>
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<tr>
<td>1574</td>
<td>Cotton, non absorbent</td>
<td>20 lbs.</td>
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### Biological Chemicals

#### Biological Stains

<table>
<thead>
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<tr>
<td>1600</td>
<td>Methylene Blue, certified</td>
<td>100</td>
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<tr>
<td>1601</td>
<td>Fuchin, Basic, certified</td>
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<td>1602</td>
<td>Fuchin, Acidic, certified</td>
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<td>1603</td>
<td>Thionine, certified</td>
<td>20</td>
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<tr>
<td>1604</td>
<td>Crystal Violet</td>
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<tr>
<td>1605</td>
<td>Toluidine Blue 0, certified</td>
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<tr>
<td>1606</td>
<td>Malachite Green, certified</td>
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<tr>
<td>1607</td>
<td>Gentian Violet, Certified</td>
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<tr>
<td>1608</td>
<td>Gremsa's Stain, certified</td>
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<tr>
<td>1609</td>
<td>Aniline Blue, certified</td>
<td>50</td>
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</tr>
<tr>
<td>1610</td>
<td>Azure I</td>
<td>10</td>
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</tr>
<tr>
<td>1611</td>
<td>Azure II</td>
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</tr>
<tr>
<td>1612</td>
<td>Eosin, Blinsk</td>
<td>100</td>
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<tr>
<td>1613</td>
<td>Brilliant Green</td>
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<td>1614</td>
<td>Bismark Brown</td>
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<td>1615</td>
<td>Rose Bengal</td>
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<td>1616</td>
<td>Safranine</td>
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<tr>
<td>1617</td>
<td>Sudan Black - B</td>
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<tr>
<td>1618</td>
<td>Eosin Y</td>
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#### Special Chemicals for Biological Tests

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<tbody>
<tr>
<td>1619</td>
<td>d Naphthel</td>
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<td>16</td>
</tr>
<tr>
<td>1620</td>
<td>d Naphthylamine</td>
<td>2</td>
<td>16</td>
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<tr>
<td>1621</td>
<td>Bromo cresol purple</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>1622</td>
<td>Bromo cresol green</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>1623</td>
<td>Bromothymol blue</td>
<td>5</td>
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</tr>
<tr>
<td>Item No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Possible source</td>
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<tr>
<td>1624</td>
<td>Cresol U.S.P.</td>
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<tr>
<td>1625</td>
<td>Potassium Tellurite</td>
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<td>g</td>
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<tr>
<td>1626</td>
<td>Diphenylamine c.p.</td>
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<td>1 lb</td>
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<tr>
<td>1627</td>
<td>Tarmic Acid USP powder</td>
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<td>1628</td>
<td>Azolitmin (Biological Stain)</td>
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<td>1629</td>
<td>Sodium Selenite</td>
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<tr>
<td>1630</td>
<td>Sodium Thioglycollate</td>
<td>100</td>
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<tr>
<td>1631</td>
<td>Formaldehyde</td>
<td>5</td>
<td>5 x 1 lb</td>
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<td>1632</td>
<td>Ammonium oxalate</td>
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<td>Para-dimethyl-amo-no-benzaldehyde</td>
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<td>Amyl alcohol</td>
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<td>Phenol c.p. crystals</td>
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<td>1636</td>
<td>Lactic Acid</td>
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<td>Glycerin</td>
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<tr>
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<td>Mercuric chloride, powder</td>
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<td>Creatine</td>
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<tr>
<td>1640</td>
<td>Propylene glycol</td>
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<td>Sodium ricinoleate</td>
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<td>Sulfamidic Acid</td>
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<td>Sodium formaldehyde sulfoxylate, technical</td>
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<td>Urea</td>
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<td><strong>Microbiological Culture Ingredients</strong></td>
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<td>Anaerobic agar</td>
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<td>1648</td>
<td>l - arabinose</td>
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<td>l - arginine HCL</td>
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<td>1652</td>
<td>M-Bg Endo Booth</td>
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<tr>
<td>1653</td>
<td>BTB Citrate agar</td>
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<tr>
<td>1654</td>
<td>BTB Lactose agar</td>
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<tr>
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<td>Beef Extract</td>
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<tr>
<td>1656</td>
<td>Casein, Technical</td>
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<td>l - cystine</td>
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<td>Desoxycholate agar</td>
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<td>Desoxycholic acid</td>
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<td>Dextrin</td>
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<td>Dextrose agar</td>
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<td>Dextrose Tryptone agar</td>
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<td>EMB agar</td>
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<td>Egg Albumin Salukle</td>
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<td>Endo agar</td>
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<td>Fluid Thioglycollate, medium</td>
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<td>d - Galactose</td>
<td>100 g</td>
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<td>Gelatin</td>
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<td>16</td>
</tr>
<tr>
<td>1678</td>
<td>Peptine</td>
<td>2 x 1 lb</td>
<td>16</td>
</tr>
<tr>
<td>1679</td>
<td>Raffinose</td>
<td>100 g</td>
<td>16</td>
</tr>
<tr>
<td>1680</td>
<td>d' Sarbitol</td>
<td>100 g</td>
<td>16</td>
</tr>
<tr>
<td>1681</td>
<td>Trypsine 1:250</td>
<td>100 g</td>
<td>16</td>
</tr>
<tr>
<td>1682</td>
<td>Tryptone</td>
<td>1 lb</td>
<td>16</td>
</tr>
<tr>
<td>1683</td>
<td>Tryptose</td>
<td>1 lb</td>
<td>16</td>
</tr>
<tr>
<td>1684</td>
<td>Urease</td>
<td>10 g</td>
<td>16</td>
</tr>
<tr>
<td>1685</td>
<td>Yeast Extract</td>
<td>1 lb</td>
<td>16</td>
</tr>
<tr>
<td>1686</td>
<td>Mannitl</td>
<td>1 lb</td>
<td>16</td>
</tr>
<tr>
<td>1687</td>
<td>Meat Extract</td>
<td>1 lb</td>
<td>16</td>
</tr>
<tr>
<td>1688</td>
<td>Mannose</td>
<td>25 g</td>
<td>16</td>
</tr>
</tbody>
</table>
6. List of Suppliers
6. **List of Suppliers:**

**Coding**

Under the heading Sources of Supply, the following codes are used:

- X = The item as described can normally be bought in most good laboratory furnishers.
- X (US) = This item can be bought at any good laboratory furnisher in the United States of America. The item may, however, be available in other countries, or else, substitute items of suitable quality may be available.

When a specific source of supply is mentioned, it is done in order to facilitate in the procurement of items not normally universally available. It does not imply that this is the only source of supply and the authors of the list would be greatly indebted to the users if they would indicate from time to time additional sources of supply of items which are often hard to locate.

1  = Central Scientific, 1700 Irving Park Road, Chicago 13, Illinois, U.S.A.
2  = Arthur H. Thomas Company, Vine Street at Third, P.O. Box 779, Philadelphia 5, Pa., U.S.A.
5  = Carlowitz and Co., Burchardstrasse 17, Hamburg 1, East Germany.
6  = B. Siegfried, Zofingen, Switzerland.
7  = Cole - Palmer Instruments and Equipment Co., 7330 North Clark Street, Chicago, Illinois, U.S.A.
8  = Soil Test Incorporated, 47ll West North Avenue, Chicago 39, Illinois, U.S.A.
9  = Elga Products Ltd., Lane End, Buckinghamshire, England.
10 = Quickfit and Quartz Ltd., Quickfit Works, Heart of Stone, Staffordalme, England.
11 = Electronic Instruments Ltd., Richmond, Surrey, England.
Beckman Instruments Incorporated, South Pasadena, California, U.S.A.

Dr. B. Lange, Berlin-Zehlendorf, Hermannstr. 14-18, Germany.


Fisher, 633 Greenwhich Street, New York, U.S.A.

Karl Kolb, Frankfurt, Main 1, Germany.


Institute for Land and Water Management Research, Wageningen, Holland.

Compagnie générale de Télégraphie sans fils, 79 Boulevard Haussmann, Paris, France.


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