



# GLAND PACKING CATALOGUE

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| Packing Reel Sizes  Suppliers Details | MARKET CHEESEN |

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|---------------------------|---------|---|---|---|--------------------|----------------------|------------------|--------------------|---------------------|-------------------|-------------------|--------------------|------------------------|---------------------|----------|-----------|-------------------|---------------------------|------------------------|--------------------------|--------------------------|
|                           |         | SealQu<br>Industrie   | GLAND PACKING SELECTIONS AND APPLICATIONS |   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           |                   |                           |                        |                          |                          |
|                           |         | Industria   |   |   |                    |                      |                  |                    | PUMI                | PAC               | KINGS             | ,                  |                        |                     |          |           | 1                 | VALV                      | E                      | PLUI                     | VGER                     |
| -                         |         | Controlled Fluid Mo   | we.me.ut.                                 |   | _                  |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           | P/                | ACKIN                     | GS                     | PUI                      | MPS                      |
|                           |         | Congrussed I said 1910  | vemenu                                    |   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           |                   | ×                         |                        | ×                        | ×                        |
|                           |         | Tel. 073 - 238 571  | 12  | Ě   |                    | l                    |                  |                    | _                   |                   |                   |                    | ×                      |                     |          |           |                   | 틸                         | ĕ                      | RTE                      | RTE                      |
|                           |         | info@sealquip.co.   | 72  | SQ4560<br>CARBGRAFTEX                     | ® ₽                | SQ2562L<br>PTFLUBTEX | ~ ×              | 7 X                | SQ3564<br>KEVLUBTEX | 3<br>TEX          | EX 3              | ₹ ¥                | SQ3064A2<br>KEVLENSTEX | SQ2654<br>ACRYLITEX | 0        | SQ-PRO-AB | _ <u>@</u>        | SQ5060IN<br>GRAFOILINCTEX | SQ2662L<br>PTFEVALVTEX | SQ3064A1<br>KEVLENCORTEX | SQ3063A1<br>KYNLENCORTEX |
|                           |         |   |   | SQ4560<br>CARBGF                          | SQ4658<br>RAMIETEN | SQ2562L<br>PTFLUBT   | SQ3062<br>FOGTEX | SQ3062L<br>LENSTEX | SQ3564<br>KEVLUBI   | SQ3563<br>NOMETEX | SQ3663<br>PHENTEX | SQ2664<br>KEVLATEX | SQ3064A2<br>KEVLENSTI  | SQ2654<br>ACRYLIT   | SQ-PRO   | -PR(      | SQ5060<br>GRAFOIL | 506<br>AFC                | SQ2662L<br>PTFEVAL     | SQ3064A1<br>KEVLENCO     | 306<br>NLE               |
|                           |         | www.sealquip.co.  |   | ů, o                                      | <b>V</b> , _       | -                    |                  |                    |                     | ** -              |                   | -                  |                        |                     |          |           |                   | S R                       | S<br>P                 | SQ<br>KE                 |                          |
|                           |         | Centrifugal Pump  | p bar                                     | 25  | 20<br>10           | 10                   | 25<br>25         | 20<br>15           | 25<br>25            | 25                | 20                | 30<br>25           | 25<br>15               | 20                  | 20       | 25<br>25  | 20                |                           |                        |                          | 20                       |
|                           |         |   | vg m/s<br>p bar                           | 100                                       | 200                | 100                  | 100              | 200                | 100                 | 20                | 100               | 100                | 150                    | 80                  | 80       | 50        | 250               |                           |                        | 150                      | 100                      |
|                           |         | Plunger Pump  | vg m/s                                    | 20  | 10                 | 2                    | 2                | 2                  | 1.50                | 2                 | 1.50              | 1.50               | 15                     | 20                  | 2        | 2         | 2                 |                           |                        | 15                       | 1.5                      |
|                           |         | Valves  | p bar                                     | 200                                       | 300                | 200                  | 200              | 250                | 200                 | 100               | 200               | 200                | 200                    | 100                 | 100      | 100       | 250               | 500                       | 200                    | 200                      | 200                      |
|                           |         | valves  | vg m/s                                    | 2   | 10                 | 2                    | 2                | 2                  | 2                   | 2                 | 2                 | 2                  | 15                     | 20                  | 20       | 2         | 2                 | 2                         | 2                      | 15                       | 2                        |
|                           |         | Agitators, Mixers   | p bar                                     | <u> </u>                                  | 20                 |                      | 25               | 25                 |                     | 25                | 25                |                    | 25                     | 25                  | 25       | 25        | 50                |                           | 25                     | 50                       | 50                       |
|                           |         | (Dry Running)   | vg m/s                                    |   | 2                  |                      | 2                | 2                  |                     | 2                 | 2                 |                    | 2                      | 2                   | 2        | 2         | 2                 |                           | 2                      | 2                        | 2                        |
|                           |         | Blowers   | p bar                                     |   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           | 8                 |                           |                        |                          |                          |
|                           |         | (Dry Running)   | vg m/s                                    |   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           | 2                 |                           |                        |                          |                          |
|                           |         | Temperature °C  |   | 0   | -50                | -200                 | -200             |                    | _                   | -100              | -50               | -100               | _                      | -100                |          | -50       | -200              | _                         | -200                   | -100                     | -100                     |
|                           |         |   |   | <300                                      |                    |                      | _                | _                  | +280                | +280              | +260              | +280               | _                      | _                   | _        | _         | _                 |                           | +280                   | +280                     | +260                     |
|                           |         | Ph  |   | 0-14                                      | 5-11               | 0-14                 | 0-14             | 0-14               | 2-13                | 1-13              | 1-13              | 2-13               | 2-12                   | 1-13                | 1-13     | 1-13      | 0-14              | 0-14                      | 0-14                   | 2-12                     | 1-13                     |
| ı                         | a1      | Abrasive Media, Lime, Sand, Solid   | ds  | *   | *                  |                      | *                |                    | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         |                   |                           |                        | *                        | *                        |
|                           | b       | Acid Gases  |   |   |                    | *                    | *                | ☆                  |                     |                   |                   |                    |                        |                     |          |           | ☆                 | ☆                         | *                      |                          |                          |
|                           | a2      | Adhesive Media, Bitumens, Glues   | 5   |   |                    | ☆                    | ☆                | *                  | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         |                   |                           | *                      | *                        | *                        |
| ı                         | С       | Concentrated Acids, Inorganic/O   | rganic                                    |   |                    | *                    | *                | *                  |                     | *                 | ☆                 |                    |                        |                     | ☆        | *         |                   | *                         | *                      |                          |                          |
| •                         | d       | Concentrated Alkalis  |   | *   |                    | *                    | ☆                | ☆                  |                     |                   |                   |                    |                        |                     |          |           | ☆                 | ☆                         | *                      |                          |                          |
|                           | e       | Diluted Acids, Inorganic/Organic  | Salt                                      |   |                    | *                    | *                | *                  | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         | *                 | *                         | *                      | *                        | *                        |
|                           | Ļ       | Solutions   |   |   | ١.                 |                      |                  | -                  |                     |                   |                   |                    |                        |                     |          |           |                   |                           |                        |                          |                          |
| (a)                       | f       | Diluted Alkalis, Salt Solutions<br>Heat Transfer Oils   |   | *   | *                  | *                    | *                | *                  | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         | *                 | *                         | *                      | ☆                        | ☆                        |
| ext page                  | g<br>h1 |   |   | ┢   | -                  | *                    | *                | *                  | <b>☆</b>            | *                 | <b>☆</b>          | <b>☆</b>           | ☆                      | <b>☆</b>            | <b>☆</b> | *         | <b>☆</b>          | <b>☆</b>                  | <b>☆</b>               |                          |                          |
| ë                         | ΠI      | Hydrogen  |   | ⊢   | $\vdash$           | *                    | ж                | ж                  | ж                   | ж                 | ж                 | ж                  | ж                      | ж                   | ж        | ж         | *                 | *                         | *                      |                          | -                        |
| u oo u                    | i       | Neutral Vapours, Gases, Air, Nitro  | ogen                                      |   |                    | *                    | *                | *                  | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         | *                 | *                         | *                      | *                        | *                        |
| media classification on   | j       | Oils, Greases, Mineral Oils, Anima  | al Fats                                   | *   | *                  | *                    | *                | *                  | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         | *                 | *                         | *                      | *                        | *                        |
| a class                   | k       | Organic Compounds, Amines, Nit  | trates                                    | *   |                    | *                    | *                | *                  | *                   | *                 | *                 | *                  | *                      | *                   | *        | *         | *                 | *                         | *                      | *                        | *                        |
| bed                       | h2      |   |   | <u> </u>                                  |                    |                      | <u> </u>         |                    |                     |                   |                   |                    |                        |                     |          |           |                   |                           | *                      |                          |                          |
| 9                         | m       | Paints, Lacquers, Turbine Oils  |   | ┞   |                    | *                    |                  | *                  |                     | *                 | *                 |                    |                        |                     | *        | *         | *                 | *                         | *                      |                          |                          |
| s (se                     | n1      | Seawater  |   | _   | *                  | *                    | ☆                | ☆                  | *                   | ☆                 | ☆                 | ☆                  | ☆                      | ☆                   | ☆        | *         | ☆                 | ☆                         | *                      | *                        | *                        |
| Grouped media titles (see | 0       | Solvents, Aliphatic & Aeromatic<br>Hydrocarbons, Aldehydes, Alcoho<br>Ketones, Chlorinated Hydrocarbo<br>Coolants |   | *   |                    | *                    | *                | *                  |                     | *                 | *                 |                    |                        |                     | *        | *         | *                 | *                         | *                      |                          |                          |
| S<br>G                    | p1      | Steam < 280°C   |   | *   |                    | ☆                    |                  | *                  |                     |                   |                   |                    |                        |                     |          |           | *                 | *                         | *                      |                          |                          |
|                           | p2      | Steam < 450°C   |   | *   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           | *                 | *                         |                        |                          |                          |
|                           | рЗ      | Steam < 550°C   |   |   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           | *                 | *                         |                        |                          |                          |
|                           | q       | Volatile Hydrocarbons, Solvent V  | apours                                    | *   |                    | *                    | *                | *                  | *                   | *                 | ☆                 | ☆                  | ☆                      | ☆                   | ☆        | *         | *                 | *                         | *                      |                          |                          |
|                           | r       | Water (drinking), Food Stuffs,<br>Pharmaceutical Products   |   | *   | *                  | ☆                    | *                | *                  |                     | *                 | *                 |                    |                        |                     | *        | *         | ☆                 | ☆                         | *                      |                          |                          |
|                           |         |   |   |   |                    |                      |                  |                    |                     |                   |                   |                    |                        |                     |          |           |                   |                           |                        |                          |                          |

\* Highly recommended

\*

Water (hot), Boiler Feed Water,

Water, Industrial Water, Sewerage

Condensate

★ Partially recommended

\*

☆

☆

☆

 $\star$ 

☆

☆

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☆

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The technical specifications are based on years of tests & experiences, however due to the diversity of the applications, they should only be regarded as a guide. Please contact SEALQUIP with the conditions of your application for expert advice. Please note that the operating limits are mutually dependant, it is not possible to run to the maximum of all values simultaneously.

#### MEDIA CLASSIFICATION

**NOTE**: The sorting of media into major groups will help to accertain the resistance of a particular packing for selection purposes. One must also consider the packings operating limits and read through the detailed description. The letters accompanying the media relate to the major media groups on the <u>opposite page</u> "Gland Packing Selections and Applications"

| Α.   |   | Calana @ (Na harranata  |  | E-L   | -0  | and the declarity  |   |   |  |
|--|---|---|--|---|---|--|---|---|--|
| Α  |   | Calgon ® (Na-hexameta-  | f  | fish press water  | n2  | methyl chloride  | q o   | sea-water   | d  |
| Accumulator acid   | С   | phosphate)  |  | fish slurry   | n2  | methyl ethyl ketone  | q o   | sewage water  | f  |
| acetaldehyde   | o k   | caprolactam   | f k  | fish-liver oil  | j   | methylated spriirt   | 0   | silicon tetrachloride   | e c  |
| acetic acid  | e c   | carbolic acid (phenol)  | e c  | fixing bath, acidous  | е   | milk   | r   | silicone fats   | j  |
| acetic acid anhydride  | С   | carbon bisulphide   | 0  | fluosilicic acid  | С   | milk of lime (calcium  | f d   | silicone oils   | j  |
| acetic ether (ethyl acetate)   | q o   | carbon dioxide (gas)  | b  | formaldehyde (formalin)   | o k   | hydroxide)   | ı u   | skin creams   | r j  |
| acetone  | q o   | carbon dioxide (liquid)   | b  | formic acid   | ес  | mineral oil (crude oil)  | i   | soap solution   | f  |
| acrylonitril   | k   | carbon monoxide (gas)   | b  | Freon ®   | q o   | mineral oil  | ;   | soda lye 30% all conc.  | f d  |
|  |   |   | b  | ( <del>)                                    </del>  | _   |  | J   |   |  |
| adipinic acid  | e c   | caustic lime  | d  | Frigene ®   | q o   | Mobiltherm 600 ®   | g   | sodium arsenate   | e f  |
| alcohol (ethanol)  | 0   | (calcium hydroxide)   |  | fruit juices  | r   | molasses   | a2 r  | sodium carbonate  | f d  |
| aluminium acetate  | e f   | caustic potash (potassium   | f d  | fruit pulp  | r   | monochloro benzene   | q o   | sodium chloride   | e f  |
| aluminium chloride   | e f   | hydroxide)  |  | fully desalinated water   | n2  | N  |   | (common salt)   | 0 1  |
| aluminium sulphate   | e f   | caustic soda (sodium  |  | G   |   | N-methyl pyrrolidone   | 0   | sodium hydroxide (caustic   |  |
| ammonia (gaseous)  | f d   | hydroxide)  | d  | gallic acid   | ес  | naphtha  | 0   | soda)   | f d  |
| ammonia (liquid)   | f d   | cellulose   | a1   | gas scrubbing water   | n2 e  | naphtenic acid   | ес  | sodium hypochlorite   | e f  |
| ammonia hydroxide  | f d   | chloric acid gas  | aı   | gelatine  |   | natural gas  | ;   | sodium nitrate  |  |
|  |   | -   | b c  |   | r   |  | -   |   | <u> </u>   |
| ammonium chloride  | e f   | (hydrogen chloride)   |  | glacial acetate acid  | С   | nitric acid <10% 85°C  | e c   | sodium phosphate  | e f  |
| ammonium sulphate  | e f   | chlorine gas  | b c  | Gluaber's salt (sodium  | e f   | nitric acid >10% 35°C  | С   | sodium silicate (water glass)   | e f  |
| aniline  | k   | chlorine water (chlorine  | С  | sulphate)   | •   | nonyl phenol   | 0   | sodium sulfate  | e f  |
| anthracene oil   | j   | saturated water)  | U  | glycerol  | 0   | 0  |   | (Glauber's salt)  | C  |
| antifreeze solution  | 0   |   | е  | glycolic acid ester   | q o   | oils: animal oils  | i   | sodium sulfide  | e f  |
| arsenic acid   | ес  | chloro sulphonic acid   | С  | glycolmonoacetate   | q o   | oils: vegetable oils   | i   | sodium sulfite  | e f  |
|  | a2  | chlorobenzene   | 0  | H H   | 4 0   | oils: lubricating oils   | i   |   |  |
|  | α <b>∠</b><br>:   |   |  |   |   |  | <u>.</u> :  | sodium thiosulfate (antichlor)  | •  |
| ASTM oil no. 1,2,3 & 4   | J   | chloroform  | 0  | heat transfer oil   | g   | olive oil  | r j   | solvent naphtha   | 0  |
| В  |   | chloroparaffins   | o a2   | heating oil   | j   | oxalic acid  | e c   | steam   | p1 p2 p3   |
| barium chloride  | e f   | chromic acid  | С  | heavy water   | n2  | oxygen (gaseous liquid)  | h2  | stearic acid (fatty acid)   | ес   |
| barium hydroxide   | f d   | cider   | r  | heptane   | q o   | P  |   | styrene (phenyl ethylene)   | 0  |
| beer   | r   | citric acid   | е с  | hexane  | q o   | P3 lye ®   | c f d   | sulfite liquor  | e f  |
| beer mash, cooper  | r   | citric juices   | r e  | honey   | r   | paints   | m   | sulfuric acid: 70-90% 150°C   | С  |
| ,  |   | coconut fat   | ;  | hydraulic fluid (mineral oil  | _   |  | ***   | sulfuric acid: 90-95% 70°C  |  |
| beer mash, pumps   | r   |   |  | 11. * .   | j   | paper pulp: fine quality,  | a1  |   | С  |
| benzene 15, benzene  | С   | cod-liver oil   | r  | base)   | _   | hygienic   |   | sulfuric acid fuming (oleum)  | С  |
| sulphonic acid   |   | coke oven gas   | i  | hydraulic fluid (phosphate  | i   | paper pulp: synthetic,   | a1 e f  | sulfurous acid  | e c  |
| benzoic acid   | ес  | copper acetate solution   | e f  | ester base)   | J   | photographic   | a1 6 1  | Т   |  |
| benzyl alcohol   | 0   | copper sulfate solution   | e f  | hydrazine   | 0   | packing paper  | a1 e f  | tallow  | i  |
|  | a2  | cresol  | k  | hydrochloric acid   | ес  | peanut oil   | i   | tannic acid   | ес   |
| blast furnace gas  | b   | crude oil   | i  | hydrocyanic acid  | ес  | pentane  | q o   | tar   | a2   |
| blood  |   | cuprous chloride solution   |  |   | 0 0   | pontano  | 9 0   | tui   | uz   |
| DIOOU  |   |   |  |   | 0   | poroblorio opid  | 0.0   | tartaria agid   | •  |
|  | r   |   | e f  | hydrofluoric acid   | С   | perchloric acid  | ес  | tartaric acid   | е  |
| boiler feed water  | 8   | curds   | e f  | hydrogen chloride (chloric  |   | perchloro ethylene (per)   | e c<br>q o  | tetrachloromethane  | e<br>q o   |
|  |   |   |  | hydrogen chloride (chloric acid gas)  | b ec  | perchloro ethylene (per)   |   |   |  |
| boiler feed water  | s<br>e c f d  | curds   | r  | hydrogen chloride (chloric  |   | perchloro ethylene (per)   | q o   | tetrachloromethane  | q o  |
| boiler feed water<br>bonder lye  | 8   | curds<br>cyclohexane  | r<br>q o   | hydrogen chloride (chloric acid gas)  | b ec  | perchloro ethylene (per)<br>petrol   | q o<br>o  | tetrachloromethane<br>tetrahydrofurane  | q o<br>o   |
| boiler feed water<br>bonder lye<br>bone fat (dissolved in tri or<br>gasoline)  | e c fd  | curds<br>cyclohexane<br>cyclohexanol  | r q o  | hydrogen chloride (chloric<br>acid gas)<br>hydrogen peroxide  | b ec  | perchloro ethylene (per) petrol petroleum petroleum ether  | q 0<br>0<br>0<br>q 0  | tetrachloromethane<br>tetrahydrofurane<br>thick juice (60% sugar solution)<br>thin juice (sugar soution)  | q o<br>o<br>r<br>r a2  |
| boiler feed water<br>bonder lye<br>bone fat (dissolved in tri or<br>gasoline)<br>borax solution  | s<br>e c f d<br>o   | curds cyclohexane cyclohexanol cyclohexanone D  | r  | hydrogen chloride (chloric<br>acid gas)<br>hydrogen peroxide<br>I<br>iso-octane   | b ec  | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid)   | q o<br>o<br>o<br>q o<br>e c   | tetrachloromethane<br>tetrahydrofurane<br>thick juice (60% sugar solution)<br>thin juice (sugar soution)<br>toluene   | q o<br>o<br>r<br>r a2  |
| boiler feed water<br>bonder lye<br>bone fat (dissolved in tri or<br>gasoline)<br>borax solution<br>boric acid  | s<br>e c f d<br>o<br>f<br>e   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP)   | r q o  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol   | b ec<br>c<br>q o  | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid   | q o o o o o o o o o o o o o o o o o o o                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane   | q o<br>o<br>r<br>r a2<br>o   |
| boiler feed water<br>bonder lye<br>bone fat (dissolved in tri or<br>gasoline)<br>borax solution<br>boric acid<br>brackish water  | s<br>e c f d<br>o   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel   | r q o o o k  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isobutyl ketone   | b ec<br>c<br>q o<br>q o<br>q o  | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating)   | q 0<br>0<br>0<br>q 0<br>e c<br>e c  | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene   | q 0<br>0<br>r<br>r a2<br>0   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid  | s<br>e c f d<br>o<br>f<br>e   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA)  | r  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isobutyl ketone isopropyl acetate   | b ec<br>c<br>q o  | perchloro ethylene (per) petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride  | q o o o o o o o o o o o o o o o o o o o                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine   | q o o r r a2 o o o f k   |
| boiler feed water<br>bonder lye<br>bone fat (dissolved in tri or<br>gasoline)<br>borax solution<br>boric acid<br>brackish water  | s<br>e c f d<br>o<br>f<br>e   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel   | r q o o o k  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isopropyl acetate isopropyl alcohol   | b ec<br>c<br>q o<br>q o<br>q o  | perchloro ethylene (per) petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil   | q o o o o o o o o o o o o o o o o o o o                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate   | q 0<br>0<br>r<br>r a2<br>0   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid  | e c f d  o  f e f j   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA)  | r  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isobutyl ketone isopropyl acetate   | b ec c q o q o q o q o  | perchloro ethylene (per) petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride  | q 0<br>0<br>0<br>q 0<br>e c<br>e c  | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine   | q o o r r a2 o o o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy   | e c fd  o  f e f r o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid   | r  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isopropyl acetate isopropyl alcohol   | b ec c q o q o q o q o q o q o  | perchloro ethylene (per) petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil   | q o o o o o o o o o o o o o o o o o o o                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate   | q o o r r a2 o o o f k e f   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous  | e c fd  o  f e f r o e c j  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water   | r  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether   | b ec c q o q o q o q o q o q o  | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate  | q o o o o o o e c e c e c c c j f d   | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils  | q o o r r a2 o o o f k e f m   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene  | s   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene  | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide liso-octane isobutyl alcohol isopropyl acetate isopropyl alcohol   | b ec c q o q o q o q o q o q o q o                                      | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide   | q 0<br>0<br>0<br>q 0<br>e c<br>e c<br>c<br>c<br>f d<br>e f                  | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine   | q o o r r a2 o o o f k e f m   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane   | s e c f d o f e f f f f f c c f d e c f d f d f f f f f f f f f f f f f f f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ®   | r  | hydrogen chloride (chloric acid gas) hydrogen peroxide  liso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L  | b ec c q o q o q o q o q o q o q o                                      | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite  | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea   | q o o r r a2 o o o f k e f m   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane   | s e c f d o f e f f f f f g k a2 q o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers  | b ec c q o q o q o q o q o q o q o q o q o q o                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium cyanide potassium hypochlorite potassium nitrate   | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea   | q o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butaneliol butanol (butylic alcohol)  | s e c f d o f e f f f f f c c f d e c f d f d f f f f f f f f f f f f f f f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  | r q o o o o o o o k j f k g o k r o o g a2   | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl acetate isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar)  | b ec c q o q o q o q o q o q o q o q o q o m f                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium nitrate potassium silicate   | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste   | q o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanediol butanol (butylic alcohol) butanone (methyl ethyl   | s e c f d o f e f j r o e c j k a2 q o o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil  | r  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar) lead sludge  | b ec c q o q o q o q o q o q o q o q o q o q o                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium nitrate potassium silicate potassium sulfate   | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste vinegar (edible)  | q o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butaneliol butanol (butylic alcohol)  | s e c f d o f e f f f f f g k a2 q o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  | r q o o o o o o o k j f k g o k r o o g a2   | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl acetate isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar)  | b ec c q o q o q o q o q o q o q o q o q o m f                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium nitrate potassium silicate   | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste vinegar (edible) vinyl chloride   | q o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanediol butanol (butylic alcohol) butanone (methyl ethyl   | s e c f d o f e f j r o e c j k a2 q o o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil  | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar) lead sludge  | b ec  c   | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium nitrate potassium silicate potassium sulfate   | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste vinegar (edible)  | q o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanediol butanol (butylic alcohol) butylene   | s e c f d o f e c f d i e c f d i e c f d i e c f d i e c f d i e c f d i e c f i e c | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol)   | r q o o o o o o o k g o k r o o g a 2 c o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil  | b ec c q o q o q o q o q o q o q o q o q o f o f a1 r                   | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol)  | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste vinegar (edible) vinyl chloride W   | q o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanediol butanol (butylic alcohol) butylic need to the solution of th | s e c f d o f e c f d e c f d e c f d e c f d e c f d e c f d e c f d e c f d e c f | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether)   | r q o o o o o o k j f k g o k r o g a 2 c o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  Iiso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  | b ec c q o q o q o q o q o q o q o q o q o r a1 r a2 j                  | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone  | q 0 0 0 e c e c c c f d e f e f e f e f e f q 0 q 0                         | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste vinegar (edible) vinyl chloride W water glass (sodium silicate)   | q o o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butanee butane butanediol butanol (butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol)   | s e c f d o f e f j r o e c j k a2 q o o o o o o o o o o o o o o o o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate   | r q o o o o o o k j f k g o k r o g a 2 c o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  | b ec c q o q o q o q o q o q o q o q o q o r a1 r a2 j                  | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate  | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea V vegetable paste vinegar (edible) vinyl chloride W water glass (sodium silicate) water: drinking   | q o o o r r a2 o o o o o f k e f m o f k e f r e e f r   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanediol butanol (butylic alcohol) butylic acetate butylic acetate butylic alcohol (butanol) butyric acid   | s e c f d o f e c f d e c f d e c f d e c f d e c f d e c f d e c f d e c f d e c f | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether)   | r q o o o o o o b b c c c c c c c c c c c c  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite   | b ec c q o q o q o q o q o q o q o q o r a1 r a2 j r                    | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid (heating) phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester)  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: distilled  | q o o o r r a2 o o o f k e f m o f k   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanel (butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butyric acid   | s e c f d  o f e f j r o e c c j k a2 q o o o o o o o r e c   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether)   | r q o o o o o when the state of | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl achol isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide   | b ec c q o q o q o q o q o q o q o q o q o r a1 r a2 j                  | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester)  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: not treated, dirty   | q o o o r r a2 o o o o o f k e f m o f k e f r e e f r   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butanee butane butanediol butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate   | s e c f d  o f e f f j r o e c f g o o o o o o o o o o o o o o o o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride  | r q o o o o o when the state of | hydrogen chloride (chloric acid gas) hydrogen peroxide  liso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide maleic acid anhydride10 /  | b ec c q o q o q o q o q o q o q o q o q o q o                          | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed  | q o o o r r a2 o o o o f k e f m o f k e f r e q e f r f f s   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butanel (butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butyric acid   | s e c f d  o f e f j r o e c c j k a2 q o o o o o o o r e c   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether)   | r q o o o o o when the state of | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl achol isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide   | b ec c q o q o q o q o q o q o q o q o r a1 r a2 j r                    | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: not treated, dirty   | q o o r r a2 o o o f k e f m o f k e f r e q e f r f f   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butanee butane butaned (butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate  | s e c f d  o f e f f j r o e c f g o o o o o o o o o o o o o o o o o o  | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride  | r q o o o o o when the state of | hydrogen chloride (chloric acid gas) hydrogen peroxide  liso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide maleic acid anhydride10 /  | b ec c q o q o q o q o q o q o q o q o q o q o                          | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium nitrate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed  | q o o o r r a2 o o o o f k e f m o f k e f r e q e f r f f s   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butandiene butanediol butanol (butylic alcohol) butylic acetate butylic acetate butylic acetate butylic acid  C calcium acetate calcium bisulfite liquor (sulfite liquor)  | s e c f d  o f e f f c j r o e c j k a2 q o o o o o o o o r e c e f e f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide   | r q o o o o o when the control of th | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide maleic acid anhydride10 / manganese nitrate manure, liquid  | b ec c q o q o q o q o q o q o q o q o q o r a1 r a2 j r e f f d e f    | perchloro ethylene (per) petrol petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone  Q quenching oil  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: distilled water: not treated, dirty water: boiler, feed water: reactor, radioactive water: heavy   | q o o o r r a2 o o o o f k e f m o e f r f s f f   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(loutylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic acetate butylic acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride  | s e c f d  o f e  f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F  | r q o o o o o when the control of th | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene) L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide maleic acid anhydride10 / manganese nitrate manure, liquid marmalade   | b ec c q o q o q o q o q o q o q o q o q o q o                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone  Q quenching oil R  | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed water: reactor, radioactive water: brackish, sea                                 | q o o o r r a2 o o o o f k e f m o f k r e q e f r f f s f   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(in butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hydroxide  | s e c f d  o f e f f c j r o e c j k a2 q o o o o o o o o r e c e f e f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F faeces   | r q o o o o o o o k g o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium bisulfite magnese nitrate manure, liquid marmalade mash: hop mash   | b ec c q o q o q o q o q o q o q o q o q o r a1 r a2 j r e f f d e f    | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassi | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed water: heavy water: brackish, sea whale oil, train oil                            | q o o o r r a2 o o o o f k e f m o e f f k r e q e f f f s f d d j                                     |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(in butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hydroxide (milk of lime)   | s e c f d  o f e  f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F faeces fats and fatty alcohols   | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium bisulfite magnese nitrate manure, liquid marmalade mash: hop mash masut (heavy heating oil)   | b ec  c  q o q o q o q o q o q o q o q o q o q                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone Q quenching oil R rapeseed oil raw juices (sugar solution)   | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed water: heavy water: brackish, sea whale oil, train oil wine                      | q o o o r r a2 o o o o f k e f m o e f r f f s f f d j r   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(in butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hypochlorite   | s e c f d  o f e c f f j r o e c c j k a2 q o o o o o o o o c c c c c c c c c c c   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F faeces fats and fatty alcohols fatty acids   | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium bisulfite magnesium hydroxide maleic acid anhydride10 / manganese nitrate manure, liquid marmalade mash: hop mash masut (heavy heating oil) meat juices and broths        | b ec  c  q o q o q o q o q o q o q o  m f a1 r a2 j r e f f d e f r r j | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone Q quenching oil R rapeseed oil raw juices (sugar solution)   | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: not treated, dirty water: boiler, feed water: reactor, radioactive water: brackish, sea whale oil, train oil wine wood pulp              | q o o o r r a2 o o o o f k e f m o e f f k r e q e f f f s f f d d j                                   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(in butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hydroxide (milk of lime)   | s e c f d  o f e  f   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F faeces fats and fatty alcohols fatty acids fatty alcohol sulphonate                              | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium bisulfite magnese nitrate manure, liquid marmalade mash: hop mash masut (heavy heating oil)   | b ec  c  q o q o q o q o q o q o q o q o q o q                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone Q quenching oil R rapeseed oil raw juices (sugar solution)   | q 0 0 0 0 e c e c e c c j f d e f e f e f e f q 0 0 q 0 q 0 d 0             | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed water: heavy water: brackish, sea whale oil, train oil wine                      | q o o o r r a2 o o o o f k e f m o e f r f f f s f f d j r   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(in butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butyric acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hypochlorite   | s   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F faeces fats and fatty alcohols fatty acids   | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium bisulfite magnesium hydroxide maleic acid anhydride10 / manganese nitrate manure, liquid marmalade mash: hop mash masut (heavy heating oil) meat juices and broths        | b ec  c  q o q o q o q o q o q o q o  m f a1 r a2 j r e f f d e f r r j | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate potassium silicate potassium silicate potassium sulfate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone Q quenching oil R rapeseed oil raw juices (sugar solution)   | q 0 0 0 q 0 e c e c c f d e f e f e f e f e f f d o q 0 q 0 q 0 q 0 q 0 j r | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride  W water glass (sodium silicate) water: drinking water: not treated, dirty water: boiler, feed water: reactor, radioactive water: brackish, sea whale oil, train oil wine wood pulp              | q o o o r r a2 o o o o f k e f m o e f r f f f s f f d j r   |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(iol butylic alcohol) butanone (methyl ethyl ketone) butylene butylic acetate butylic acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hydroxide (milk of lime) calconit R ® (caustic   | s e c f d  o f e c f f j r o e c c j k a2 q o o o o o o o o c c c c c c c c c c c   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene cyclol ethylene oxide  F faeces fats and fatty alcohols fatty acids fatty alcohol sulphonate ferric (III) chloride solution | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide maleic acid anhydride10 / manganese nitrate manure, liquid marmalade mash: hop mash masut (heavy heating oil) meat juices and broths mercaptane                 | b ec  c  q o q o q o q o q o q o q o q o q o q                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium cyanide potassium cyanide potassium hypochlorite potassium silicate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone  Q quenching oil  R rapeseed oil raw juices (sugar solution) S salicylic acid salt, common (sodium   | q 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                     | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride W water glass (sodium silicate) water: drinking water: distilled water: not treated, dirty water: boiler, feed water: heavy water: brackish, sea whale oil, train oil wine wood pulp  XYZ xylene | q o o o r r a2 o o o o f k e f m o o o f k e f m o o o o f k e f m o o o o o o o o o o o o o o o o o o |
| boiler feed water bonder lye bone fat (dissolved in tri or gasoline) borax solution boric acid brackish water brake fluid brandy bromine, aqueous bunker oil and fuel butadiene butane butane(in butylic alcohol) butanone (methyl ethyl ketone) butylic acetate butylic alcohol (butanol) butylic acid  C calcium acetate calcium bisulfite liquor (sulfite liquor) calcium chloride calcium hypochlorite (bleaching lye)   | s   | curds cyclohexane cyclohexanol cyclohexanone  D dibutylphtalate (DBP) diesel fuel diethanolamine (DEA) diphenyl heat transfer fluid diphenyloxide distilled water dodecylbenzene Dowtherm-A ® dye liquor  E edible oil edible vinegar ethanol (ethylic alcohol) ether (ethylic ether) ethyl acetate (acethic ether) ethylene ethylene chloride ethylene oxide  F faeces fats and fatty alcohols fatty acids fatty alcohol sulphonate                              | r q o o o o o o o o o o o o o o o o o o  | hydrogen chloride (chloric acid gas) hydrogen peroxide  I iso-octane isobutyl alcohol isobutyl ketone isopropyl acetate isopropyl alcohol isopropyl ether  J jet fuel JP4, JP5 (kerosene)  L lacquers lead acetate (lead sugar) lead sludge lemonades lignite tar oil liqueurs  M magnesium bisulfite magnesium hydroxide maleic acid anhydride10 / manganese nitrate manure, liquid marmalade mash: hop mash masut (heavy heating oil) meat juices and broths mercaptane mercury nitrate | b ec  c  q o q o q o q o q o q o q o q o q o q                          | perchloro ethylene (per) petrol petroleum petroleum ether phenol (carbolic acid) phosphoric acid phthalic acid (heating) phthalic acid anhydride pine oil potassium carbonate potassium chloride potassium cyanide potassium hypochlorite potassium silicate propane propanol (propylic alcohol) propanone propyl acetate (acetic acid ester) pyrrolidone Q quenching oil R rapeseed oil raw juices (sugar solution) S salicylic acid   | q 0 0 0 q 0 e c e c c f d e f e f e f e f e f f d o q 0 q 0 q 0 q 0 q 0 j r | tetrachloromethane tetrahydrofurane thick juice (60% sugar solution) thin juice (sugar soution) toluene trichloroethane trichloroethylene triethanolamine trisodium phosphate turbine oils turpentine  U urea  V vegetable paste vinegar (edible) vinyl chloride W water glass (sodium silicate) water: drinking water: not treated, dirty water: boiler, feed water: heavy water: brackish, sea whale oil, train oil wine wood pulp  XYZ                         | q o o o r r a2 o o o o o o o o o o o o o o o o o o   |

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#### **CARBON FIBRE PACKING**



# SQ4560—CARBGRAFTEX Carbon Fibre Packing

Braided from strong carbon continuous yarns after a softening process and impregnated with proprietary lubricants and graphite particles, which fill the voids and act as a break-in lubricant which inhibits leakage.

|   | P bar | T °C | V m/s | PH   |
|---|-------|------|-------|------|
| 丰 | 200   |      | 2     |      |
| F | 100   | <650 | 20    | 0~14 |
| 9 | 25    |      | 20    |      |



#### **SQ4460— CARBGRAFPTEX**

Carbonised Fibre Packing with Graphite Impregnation
Carbonized PAN fibre impregnated with PTFE dispersion
containing graphite particles. The PTFE and graphite ensures
that the packing has excellent self lubricating properties.

|          | P bar | T °C  | V m/s | PH   |
|----------|-------|-------|-------|------|
| 丰        | 100   |       | 2     |      |
| F        | 100   | < 300 | 2     | 0~14 |
| <b>®</b> | 20    |       | 25    |      |



#### **SQ4660— CARBINCTEX**

Carbonised Fibre Packing reinforced with Inconel wire Braided from low-sulphur expanded carbon yarns, reinforced with inconel wire. Has good chemical & thermal resistance, very low friction & the wire reinforcement provides greater mechanical strength. Other metal reinforcing grades, nickel, stainless steel etc. on request.

|   | P bar | T °C  | V m/s | PH   |
|---|-------|-------|-------|------|
| F | 25    |       | 2     |      |
|   | -     | < 650 | -     | 0~14 |
| 9 | -     |       | -     |      |



#### SQ4360—CARBPTEX

Carbonised Fibre Packing with PTFE Impregnation
Braided shrink-proof synthetic fibre impregnated with
PTFE, silicon-oil-free lubricant. The oxidised polyacrylonitrile
fibre, compared to traditional carbon fibre packing, doesn't
embrittle & is suited to high peripheral speeds. Functions
well in the food industry. Oxidised fibre has high strength
& good thermal conductivity. PTFE ensures that it has
excellent self-lubricating properties. Shaft friendly & has
long life span.

|   | P bar | T℃    | V m/s | PH   |
|---|-------|-------|-------|------|
| 基 | 100   |       | 2     |      |
|   | 100   | < 300 | 2     | 0~14 |
| 9 | 2     |       | 4     |      |

#### **ACRYLIC FIBRE PACKING**



#### SQ2654—ACRYLITEX

Acrylic Fibre Packing with PTFE Impregnation

Braided from high strength acrylic synthetic fibre preimpregnated with PTFE, and re-impregnated during square braiding. It has excellent properties of sealing, lubricating and resistance to chemicals.

|   | P bar | T°C  | V m/s | РН   |
|---|-------|------|-------|------|
| 4 | 100   |      | 20    |      |
|   | 80    | <260 | 20    | 1~13 |
| 9 | 20    |      | 20    |      |



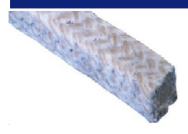
#### **SQ2554—ACRYGRAFTEX**

**Acrylic Fibre Packing with Graphite Impregnation** 

Braided from high strength acrylic synthetic fibre treated with Graphite and special lubrication. Much of the Graphite filler increases the service temperature and the density of the packing.

|          | P bar | T ℃  | V m/s | PH   |
|----------|-------|------|-------|------|
| 玉        | 150   |      | 20    |      |
|          | 100   | <350 | 20    | 1~13 |
| <b>®</b> | 25    |      | 20    |      |

#### **VEGETABLE FIBRE PACKING**



#### SQ4658—RAMIETEX

Ramie Fibre Packing with PTFE Impregnation

Highest quality ramie fibre impregnated with light-coloured, special PTFE & inert lubricant during square plaiting operation. It prevents product contamination. Low maintenance, easy installation + gentle on shafts & stems.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 4        | 30    |      | 10    |      |
| F        | 20    | <130 | 10    | 5~11 |
| <b>®</b> | 20    |      | 10    |      |

Tel. +27 73 238 5712 Email: info@sealquip.co.za Web: www.sealquip.co.za

#### **GRAPHITE PACKING**



# SQ5060- GRAFOILEX Flexible Graphite Packing

Braided from low-sulphur expanded graphite yarns, which are reinforced by cotton or glass fibre. It has a very low friction rating, does not damage shafts or stems. It shows good thermal and chemical resistance and high elasticity.

|          | P bar | T ℃  | V m/s | PH   |
|----------|-------|------|-------|------|
| 4        | 250   | -250 | 2     |      |
|          | 250   | <650 | 2     | 0~14 |
| <b>®</b> | 20    |      | 20    |      |



#### SQ5060INC—GRAFOILINCTEX

#### **Graphite Packing Reinforced with Inconel Wire**

Braided from low-sulphur expanded graphite yarns, re-inforced with inconel wire. Retains the inherent benefits of SQ5060 pure graphite packing. Good thermal & chemical resistance, very low friction, wire reinforcement provides greater mechanical strength. For use in high pressure valves.

|          | P bar | T ℃  | V m/s | PH   |
|----------|-------|------|-------|------|
| 丰        | 440   | -250 | 2     |      |
|          |       |      |       | 0~14 |
| <b>®</b> | n/a   |      | n/a   |      |

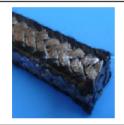


#### SQ5660C—GRAFCARTEX

#### **Graphite Packing Reinforced with Carbon Fibre**

Braided from low-sulphur expanded graphite yarns, reinforced with Carbon fibre. Retains the inherent benefits of SQ5060 pure graphite packing, good thermal & chemical resistance, very low friction. Fibre reinforcement provides greater mechanical strength. Normal for valves with high pressure.

|   | P bar | T ℃  | V m/s | PH   |
|---|-------|------|-------|------|
| 丰 | 400   | -250 |       |      |
|   | 250   | <650 | 0-10  | 0~14 |
|   | 35    |      |       |      |



#### SQ5360—GRAFCORINC

#### **Graphite-core Ni-wire Carbon Packing**

Diagonally braided from expanded flexible graphite, reinforced at the corners throughout with high quality carbon fibre. The corners and body with inconel wire make it three times more resistant to extrusion and also increase the pressure handling capabilities compared to SQ5060.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 玉        | 250   | -240 | 2     |      |
|          |       | <288 |       | 0~14 |
| <b>®</b> |       |      |       |      |



#### SQ5860—GRAFPTEX

#### **Graphite Packing with PTFE Impregnation**

Made of expanded flexible graphite, which is reinforced by textile fibres, with PTFE impregnation. Compared to traditional graphite packing, it has excellent cross-sectional rigidity, structural strength and very low friction value, wear resistant, yet gentle to shaft and stem.

|   | P bar | T ℃  | V m/s | PH   |
|---|-------|------|-------|------|
| 玉 | 350   |      | 2     |      |
|   | 100   | <280 | 20    | 0~14 |
| 9 | 25    |      | 20    |      |



#### SQ5560—GRAFINCARBCORE

#### **Super-high Temperature & Pressure Valve Packing**

High Temperature fibre with inconel wire braided over a resilient graphite core, thoroughly impregnated with graphite and corrosion inhibitor. Used in high temperature steam valve applications.

|          | P bar | T℃   | V m/s | PH   |
|----------|-------|------|-------|------|
| 丰        | 250   | -240 | 2     |      |
| F        |       | <288 |       | 0~14 |
| <b>®</b> |       |      |       |      |



# SQ109—GRAFRING Die Formed Graphite Ring

Die formed rings made of low-sulphur expanded graphite without any fillers or binders. Compressed in precise moulding tools to the required density. Due to the high purity of the material (>98%), no special corrosion protection is required. Supplied in, square section, V-shaped & wedge-shaped section.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| Ŧ        | 800   | -240 | 2     |      |
|          | 50    | <288 | 5     | 0~14 |
| <b>®</b> | 10    |      | 10    |      |

PACKING CONSTRUCTION



Two Fold Diagonal Braid



Four Fold Diagonal Braid



Braid over Core

Tel. +27 73 238 5712 Email: info@sealquip.co.za Web: www.sealquip.co.za

#### **PTFE PACKING**



#### SQ2562L— PTFLUBTEX

#### **Pure PTFE Packing with Lubricant**

Braided from pure PTFE yarn with a special break-in lubricant. Recommended for acid application.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 基        | 200   |      | 2     |      |
| F        | 100   | <280 | 2     | 0~14 |
| <b>®</b> | 20    |      | 8     |      |



#### SQ3062L—LENSTEX

#### **Graphite incorporated PTFE Packing with Oil**

Packing made of 100% gPTFE yarns, and re-impregnated with a silicone lubricant. This packing is the economical version of SQ3062. Gentle on shafts.

|          | P bar | T℃   | V m/s | PH   |
|----------|-------|------|-------|------|
| 丰        | 250   | -240 | 2     |      |
| F        | 200   | <288 | 2     | 0~14 |
| <b>®</b> | 20    |      | 16    |      |



#### SQ3062—FOGTEX

#### **Graphite incorporated PTFE Packing**

Packing made of traditional Graphite incorporated PTFE yarn, double layers of graphite ePTFE. The yarn contains higher amounts of graphite, compared to normal gPTFE yarn. It has no free particles of graphite on the surface, therefore no contamination can occur. It has very low friction and good thermal conductivity. Gentle on shafts.

|   | P bar | T °C | V m/s | PH   |
|---|-------|------|-------|------|
| ŀ | 200   | -200 | 2     |      |
| 1 | 100   | <280 | 2     | 0~14 |
| 8 | 25    |      | 25    |      |



#### SQ3064A2—KEVLENSTEX

Graphite Incorporated PTFE & Kevlar Fibre in a 'W' braid Graphite incorporated PTFE fibre, interwoven with Kevlar fibre. It is suitable for slurry applications in centrifugal pump applications. Due to the Graphite in the packing, hard chroming of the shaft sleeve is not required.

|     | P bar | T °C | V m/s | PH   |
|-----|-------|------|-------|------|
| Ħ   | 200   | -100 | 15    |      |
| ₽   | 150   | ~280 | 15    | 2~12 |
| (8) | 25    |      | 15    |      |



#### SQ3064A1—KEVLENCORTEX

Graphite Incorporated PTFE Packing with Kevlar corners Multi-yarn packing. The corners of the packing are made of Kevlar yarns, impregnated with PTFE. The friction faces are made of graphite incorporated PTFE yarns. This structure enhances the lubrication ability of the Kevlar fibre and improves the strength of the GPTFE. This special

combination is excellent for Plunger pump applications.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| Ħ        | 200   | -100 | 15    |      |
|          | 150   | ~280 | 15    | 2~12 |
| <b>®</b> | 25    |      | 15    |      |



#### SQ3063A1—KYNLENCORTEX

Graphite Incorporated PTFE Packing with Kynol Corners It contains the added advantage of both Graphite incorporated PTFE and Kynol. Excellent for abrasive acidic applications.

|   | P bar | T °C | V m/s | PH   |
|---|-------|------|-------|------|
| Ŧ | 200   |      | 2     |      |
| ₽ | 100   | <260 | 1.5   | 1~13 |
| 9 | 20    |      | 20    |      |

#### **ARAMID PACKING**



#### SQ2664—KEVLATEX

#### **Kevlar with PTFE Impregnation**

Braided from high quality Dupont Kevlar™ fibre with PTFE Impregnation. Extremely hard wearing. It shows good chemical resistance, high elasticity and very low cold flow. It is a wear resistant packing. A minimum shaft hardness of 60 HRC is therefore recommended. Compared with other packing, it resists highly abrasive media & higher pressures.

|   | P bar | T °C | V m/s | PH   |
|---|-------|------|-------|------|
| Ī | 200   | -100 | 2     |      |
| F | 100   | ~280 | 1.5   | 2~13 |
|   | 30    |      | 25    |      |



#### SQ3564—CARBTUFFTEX

#### Spun Kevlar Packing

Braided from high quality Dupont Spun Kevlar™ fibre with PTFE Impregnation and lubricant additive. It shows good chemical resistance, high elasticity and very low cold flow. It is wear resistant but gentle to the shaft. Compared with other kinds of packing it can resist abrasive media and high pressure applications. The packing is also lubricated with a silicone-based compound for quick and easy break-in.

|          | P bar | T °C | V m/s | РН   |
|----------|-------|------|-------|------|
| 丰        | 200   | -100 | 2     |      |
|          | 100   | ~280 | 1.5   | 2~13 |
| <b>®</b> | 25    |      | 25    |      |



#### SQ3563—NOMETEX

#### **Synthetic Fibre with PTFE Impregnation**

Braided from high quality Dupont spun Synthetic yarns with PTFE Impregnation and lubricant additive. High cross-sectional density and structural strength, good sliding characteristic, gentle on shaft surfaces. It has the same characteristics as Kevlar, but it does not hurt the shaft.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 丰        | 100   | -100 | 2     |      |
|          | 20    | ~280 | 2     | 1~13 |
| <b>®</b> | 25    |      | 20    |      |



#### SQ3563-G—NOMETEX G

Synthetic Fibre with PTFE Impregnation and Graphite Paste Braided from high quality Dupont spun Synthetic yarns with PTFE Impregnation, Graphite Paste and lubricant additive. High cross-sectional density and structural strength, good sliding characteristic, gentle on shaft surfaces. It has the same characteristics as Kevlar, but it does not hurt the shaft.

|   | P bar | T ℃  | V m/s | PH   |
|---|-------|------|-------|------|
| Ħ | 100   | -100 | 2     |      |
|   | 20    | ~280 | 2     | 1~13 |
| 8 | 25    |      | 20    |      |



#### SQ3663—PHENTEX

#### Synthetic Yarn with PTFE Impregation

Braided from high performance synthetic fibre impregnated with special PTFE lubricant, it has very good mechanical properties combining softness and strength. The packing has a natural golden sheen and is extremely resistant to abrasive applications, yet gentle on the shaft.

|          | P bar | T ℃  | V m/s | PH   |
|----------|-------|------|-------|------|
| 玉        | 200   |      | 2     |      |
|          | 100   | <260 | 1.5   | 1~13 |
| <b>®</b> | 20    |      | 20    |      |

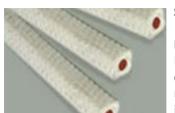


#### SQ-PRO

Combination of 3 synthetic yarns - specially formulated Braided from 3 high performance synthetic fibres. The corners are braided with well proven synthetic yarns that are highly resistant to abrasive and adhesive media whilst the graphite incorporated PTFE centre provides lubrication.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 丰        | 100   | -100 | 2     |      |
| 闸        | 20    | ~280 | 2     | 1~13 |
| <b>®</b> | 25    |      | 20    |      |

## PACKING WITH SILICON CORE / MEMORY



#### SQ4658S—RAMIETEX-S

#### Ramie Fibre Packing with Silicon Rubber Core

Ramie Packing with Silicon Rubber Core. High elastic silicon core can absorb vibration to control leakage. For pumps, refiners, filters and valves in the brewing and beverage industry, ship building. Takes up vibration on the shafts.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 基        | 30    |      | 10    |      |
|          | 20    | <130 | 10    | 5~11 |
| <b>®</b> | 20    |      | 10    |      |



#### SQ3564S—KEVLATEX-S

#### **Kevlar Fibre Packing with 5 Silicon Core**

Spun Kevlar Fibre Packing with 5 Silicon rubber core. High elastic rubber cores can absorb vibration to control leakage.

|          | P bar | T °C | V m/s | PH   |
|----------|-------|------|-------|------|
| 基        | 200   | -100 | 2     |      |
| F        | 100   | ~280 | 1.5   | 2~13 |
| <b>®</b> | 30    |      | 25    |      |



#### SQ3563S—NOMETEX-S

#### **Packing with Silicon Core**

Synthetic Fibre Packing with Silicon rubber core. High elastic rubber core can absorb vibration to control leakage.

|   | P bar | T °C | V m/s | PH   |
|---|-------|------|-------|------|
| Ħ | 100   | -100 | 2     |      |
| ₽ | 20    | ~280 | 2     | 1~13 |
| 8 | 25    |      | 20    |      |

#### **SUPPLIED AS FOLLOWS:-**

#### **PRE-CUT RINGS:**

We specialise in pre-cut rings according to the end users specifications. The sets per application are packaged in their individual boxes and labelled with your logo and product code. This supply method reduces waste and labour time for the end user.



#### **STANDARD REEL SIZES:**

3mm—6mm 1kg reel 8mm—10mm 2kg reel 12mm—14mm 3kg reel 16mm upwards 5kg reel



10-30kg reels also available

### Certified agent of the "SEALQUIP" Packing brand:

| Company Stamp |
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