

# **PRODUCT INFORMATION**

# Chemical Resistance of Duropal Laminates







High-pressure laminates with melamine surfaces are predestined for areas with high hygiene standards. Because they are distinguished by being easy to clean, maintain, and disinfect. They are hygienic, environmentally friendly, nontoxic, and food safe. Besides, they are also very robust and durable.

### **CLEANING & DESINFECTION**

Duropal laminates are highly resistant to most chemicals and disinfectants. This allows for regular and thorough cleaning which, for example, supports the hygiene schedules applicable on site.

The cleanability and good disinfectability is supported by the fact that laminates are made of duroplast resins which create a stable, resistant and reactivatable material. In addition, the surface is completely sealed, which means that it is free of pores. Dirt and germs cannot settle on it sustainably.

There is variety of surface disinfectants available on the market which differ distinctively in their ingredients, their modes of action and application, for example, as far as their frequency of use and surface retention times are concerned.

Duropal laminates are resistant to disinfectants based on:

Alcohols: e.g. ethanol 70%

Aldehydes: e.g. Formalin 1% und 5%

Phenols: e.g. p-chloro-m-cresol 0.3%

In the event that other chemicals than those mentioned here and in the following are supposed to come into contact with Duropal laminate, the compatibility of each must be tested individually.



### STAIN RESISTANCE ACC. TO EN 438:2016

The applicable product specification for high-pressure laminates describes the method according to which the properties stain resistance of laminate surfaces are tested by means of an exposure various substances. The surface is brought into contact with substances which they might be exposed to in daily use. The duration and conditions of this contact is specifically defined for each single substance.

#### Table 1:

Stain-producing substances		Exposure time
Group 1  Acetone Other organic solvents Toothpaste Hand cream Urine Alcoholic beverages Natural fruit and vegetable juices Lemonade and fruit drinks Meats and sausages Animal and vegetable fats and oils Water Yeast suspension in water	<ul> <li>Salt (NaCl) solutions</li> <li>Mustard</li> <li>Lyes, soap solutions</li> <li>Cleaning solution consisting of:</li> <li>23 % dodecylbenzene sulfonate</li> <li>10 % alkyl aryl polyglycol ether</li> <li>67 % water</li> <li>Commercial disinfectants</li> <li>Stain or paint removers based on organic solvents</li> <li>Citric acid (10% solution)</li> </ul>	16 h
<ul> <li>Group 2</li> <li>Coffee (120g of coffee per litre of water)</li> <li>Black tea (9g of tea per litre of water)</li> <li>Milk (all types)</li> <li>Cola beverages</li> <li>Wine vinegar</li> <li>Alkaline-based cleaning agents (to 10% concentration with water)</li> <li>Hydrogen peroxide (3% solution)</li> </ul>	<ul> <li>Ammonia (10% solution of commercial concentrate)</li> <li>Nail varnish</li> <li>Nail varnish remover</li> <li>Lipstick</li> <li>Water colours</li> <li>Laundry marking inks</li> <li>Ball point inks</li> </ul>	16 h
<ul> <li>Group 3</li> <li>Sodium hydroxide (25% solution)</li> <li>Hydrogen peroxide (30% solution)</li> <li>Concentrated vinegar (30% acetic acid)</li> <li>Bleaching agents and sanitary cleaners containing them</li> <li>Hydrochloric acid based cleaning agents (≤ 3% HCl)</li> <li>Acid-based metal cleaners</li> <li>Iodine</li> <li>Hair colouring and bleaching agents</li> </ul>	<ul> <li>Shoe polish</li> <li>Boric acid</li> <li>Lacquers and adhesives (except fast curing materials)</li> <li>Amidosulfonic acid descaling agents (&lt; 10% solution)</li> <li>Mercurochrome® (2,7-dibromo-4-hydroxymercurifluoresein, disodium salt)</li> <li>Acetonitrile</li> <li>Trifluoroacetic acid (TFA)</li> </ul>	10 min

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At the end of the exposure time the laminate surface is washed off and examined for traces that remain on the surface:

- Grade 5: No visible damage/alteration.
- Grade 4: Minor alteration/damage of gloss level and/or color which is only visible under certain viewing angles.
- Grade 3: Moderate alteration/damage of gloss level and/or color.
- Grade 2: Significant alteration/damage of gloss level and/or color.
- Grade 1: Surface alteration/damage and/or blistering.

Please refer to the respective technical data sheet in order to look up the grade of stain resistance that applies to a specific Duropal product.

### **CHEMICAL RESISTANCE**

Application in laboratory settings puts high demands on the resistance of surfaces, as the latter often come into direct contact with a great diversity of chemical substances.

Duropal laminates are resistant to organic solvents. Cleaners like acetone and substances like vinegar, coffee and blood do not leave any residues on the surface. Neither can diluted alkali or acid solutions harm the laminate surface if the permissible exposure times are observed. However, caution is advised in case of strong dyes or strong oxidizing agents.

As the properties and the composition of chemicals may not always be known, it is categorically advisable to remove chemical substances from the decorative laminate surface without delay.

The substances mentioned in Table 2 do not cause any damage to melamine surfaces even after a prolonged exposure time (16 hours):

Table 2:

Substances not causing any alteration on laminate surfaces		
A	Amides RCONH <sub>2</sub>	
Acetic acid CH <sub>3</sub> COOH	Amines ( any )	
Acetic acid ethyl ester CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>	Ammonia NH₄OH	
Acetic acid iso-amyl ester CH <sub>3</sub> COOC <sub>5</sub> H <sub>11</sub>	Ammonium chloride NH <sub>4</sub> CL	
Acetone CH <sub>3</sub> COCH <sub>3</sub>	Ammonium sulphate (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	
Alcoholic beverages ROH	Ammonium thiocyanate NH₄SCN	
Alcohols ( any ) ROH	Amyl acetate CH <sub>3</sub> COOC <sub>5</sub> H <sub>11</sub>	
Aldehydes RCHO	Amyl alcohol C <sub>5</sub> H <sub>11</sub> OH	
Alum solution KAI(SO <sub>4</sub> ) <sub>3</sub>	A-naphthole C <sub>10</sub> H <sub>7</sub> OH	
Aluminium sulphate Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	A-naphthylamine C <sub>10</sub> H <sub>7</sub> NH <sub>2</sub>	

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Arabinose C₅H₁₀O₅	Fructose/Galactose C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>
Ascorbic acid C <sub>6</sub> H <sub>8</sub> O <sub>6</sub>	G
Asparagine C <sub>4</sub> H <sub>8</sub> O <sub>3</sub> N <sub>2</sub>	Gelatin
Aspartic acid C <sub>4</sub> H <sub>7</sub> O <sub>4</sub> N	Glacial acetic acid CH₃COOH
В	Glucose C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>
Barium chloride BaCl <sub>2</sub>	Glycerine CH <sub>2</sub> OH CHOH CH <sub>2</sub> OH
Barium sulphate BaSO <sub>4</sub>	Glycocoll NH <sub>2</sub> CH <sub>2</sub> COOH
Benzaldehyde C <sub>6</sub> H₅CHO	Glycol ( any ) HOCH <sub>2</sub> CH <sub>2</sub> OH
Benzene C <sub>6</sub> H <sub>6</sub>	Graphite (carbon) C
Benzidine NH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> C <sub>6</sub> H <sub>4</sub> NH <sub>2</sub>	Gypsum CaSO <sub>4</sub> 2H <sub>2</sub> O
Benzoic acid C <sub>6</sub> H <sub>5</sub> COOH	Н
Blood group test Sera	Heptanol C <sub>7</sub> H <sub>15</sub> OH
Boric acid H <sub>3</sub> BO <sub>3</sub>	Hexane C <sub>6</sub> H <sub>14</sub>
Butyl acetate CH <sub>3</sub> COOC <sub>4</sub> H <sub>9</sub>	Hexanol C <sub>6</sub> H <sub>13</sub> OH
Butyl alcohol C <sub>4</sub> H <sub>9</sub> OH	Hydrogen peroxide 3% H <sub>2</sub> O <sub>2</sub>
C	Hydroquinone HOC <sub>6</sub> H <sub>4</sub> OH
Cadmium acetate Cd(CH <sub>3</sub> COO) <sub>2</sub>	1
Cadmium sulphate CdSO <sub>4</sub>	lnk
Calcium carbonate CaCO <sub>3</sub>	Inorganic salts and their mixtures
Calcium chloride CaCl <sub>2</sub>	(Exceptions: s. Table 3)
Calcium hydroxide Ca(OH) <sub>2</sub>	Inositol C <sub>6</sub> H <sub>6</sub> (OH) <sub>6</sub>
Calcium nitrate Ca(NO <sub>3</sub> ) <sub>2</sub>	Isopropanol C₃H <sub>6</sub> OH
Calcium oxide CaO	К
cane sugar C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	Ketones ( any ) RCOR
Carbolic acid C <sub>6</sub> H₅OH	L
Carbol-xylene C <sub>6</sub> H <sub>5</sub> OH-C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub>	Lactic acid CH₃CHOHCOOH
Cement	Lactose C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
Chloral hydrate CCl <sub>3</sub> CH(OH) <sub>2</sub>	Levulose C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>
Chlorobenzene C <sub>6</sub> H <sub>5</sub> Cl	Lead acetate Pb(CH <sub>3</sub> COO) <sub>2</sub>
Cholesterol C <sub>27</sub> H <sub>45</sub> OH	Lead nitrate Pb(NO <sub>3</sub> ) <sub>2</sub>
Citric acid C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>	Lithium carbonate Li <sub>2</sub> CO <sub>3</sub>
Cocaine C <sub>17</sub> H <sub>21</sub> O <sub>4</sub> N	Lithium hydroxide up to 10% LiOH
Copper sulphate CuSO <sub>4</sub>	M
Cresol CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> OH	Magnesium carbonate MgCO <sub>3</sub>
Cresylic acid CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> COOH	Magnesium chloride MgCl <sub>2</sub>
Cyclohexane C <sub>6</sub> H <sub>12</sub>	Magnesium hydroxide Mg(OH) <sub>2</sub>
D	Magnesium sulphate MgSO <sub>4</sub>
Digitonine C <sub>56</sub> H <sub>92</sub> O <sub>29</sub>	Maltose C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
Dimethylformamide HCON(CH <sub>3</sub> ) <sub>2</sub>	Mannite C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>
Dimethyl sulfoxide (CH <sub>3</sub> ) <sub>2</sub> SO	Mannose C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>
Dioxane C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Mercury Hg
Dulcite C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	Meso inosite C <sub>6</sub> H <sub>6</sub> (OH) <sub>6</sub>
F	Methanol CH₃OH
Formaldehyde HCHO	Methylene chloride CH <sub>2</sub> CL <sub>2</sub>
Formic acid up to 10% HCOOH	Mineral oils





Mineral salts (Exceptions: s. Table 3)  N Sodium hydroiden carbonate NaHCO <sub>3</sub> Nall polish Nall polish Nall polish remover Nickel sulphate NiSO <sub>4</sub> Nickel sulphate NiSO <sub>4</sub> Nickel sulphate NiSO <sub>4</sub> Nickel sulphate NiSO <sub>4</sub> Sodium hydroxide up to 10% NaOH Nall polish remover Nickel sulphate NiSO <sub>4</sub> Sodium phosphate Na <sub>2</sub> PO <sub>4</sub> Sodium sulphate Na <sub>2</sub> PO <sub>4</sub> O Cotanol (octyl alcohol) C <sub>8</sub> H <sub>10</sub> O Sodium sulphate Na <sub>2</sub> PO <sub>4</sub> Sodium sulphate Na <sub>2</sub> O <sub>3</sub> SI Octanol (octyl alcohol) C <sub>8</sub> H <sub>10</sub> O Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>3</sub> (CH <sub>2</sub> ):CH:CH(CH <sub>2</sub> ):COOH Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>3</sub> (CH <sub>2</sub> ):CH:CH(CH <sub>2</sub> ):COOH Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>3</sub> (CH <sub>2</sub> ):CH:CH(CH <sub>2</sub> ):COOH Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> Sodium throsulfate Na <sub>2</sub> SO <sub>3</sub> Paraffin oil Sorbitol Call+1 <sub>2</sub> O <sub>6</sub> Paraffin Call+1 <sub>2</sub> O <sub>7</sub> Sodium throsulfate Na <sub>2</sub> SO <sub>3</sub> Paraffin Call+1 <sub>2</sub> O <sub>7</sub> Sodium throsulfate Na <sub>2</sub> SO <sub>3</sub> Paraffin Call+1 <sub>2</sub> O <sub>7</sub> Starch Starch Pentanol Call+1 <sub>2</sub> OH Stearic acid Ct <sub>1</sub> H <sub>3</sub> SCOOH Percaulic acid CH <sub>2</sub> O <sub>4</sub> Styrene Call+3 CH:CH <sub>2</sub> Phenol & phenolic derivatives C <sub>2</sub> H <sub>3</sub> OH Sulphur S Phitrophenol Call+1 <sub>2</sub> O <sub>4</sub> Sulphur S Phitrophenol Call+1 <sub>2</sub> O <sub>4</sub> Sulphur S Phitrophenol Call+1 <sub>2</sub> O <sub>4</sub> Sulphur S Poltassium chloride KCl Talcum Mg3[Si4O10 (OH)2] Totassium chloride KCl Talcum Mg3[Si4O10 (OH)2] Potassium hydroxide up to 10% KOH Tannin Cr <sub>2</sub> H <sub>3</sub> D <sub>2</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Tetrachloromethane CCl <sub>4</sub> Tetrahloromethane CCl <sub>4</sub> Tetrahloromethylene C <sub>2</sub> H <sub>2</sub> O <sub>5</sub> Tetrahloromethylene C <sub>2</sub> H <sub>2</sub> O <sub>6</sub> Tetrahloromethane CCl <sub>4</sub> Tetrahloromethylene C <sub>2</sub> H <sub>2</sub> O <sub>6</sub> Tetrahloromethylene C <sub>2</sub> H <sub>2</sub> O <sub>6</sub> Tetrahloromethylene C <sub>2</sub> H <sub>2</sub> O <sub>6</sub> Tetrahloromethane CCl <sub>4</sub> Thiourea NH <sub>2</sub> CSNH <sub>2</sub> Thiou		February 19
Nail polish Nail polish remover Nail polish remover Noicel sulphate NiSO4 Niccel sulphate NisO5 O Sodium phosphate NisO5 Sodium sulphate NisO6 Sodium sulp	Mineral salts (Exceptions: s. Table 3)	Sodium hydrogen carbonate NaHCO <sub>3</sub>
Nail polish remover Nickle sulphate NiSO4 Nicotine C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> Sodium phosphate Na <sub>2</sub> N <sub>2</sub> O <sub>4</sub> Sodium sulphate Na <sub>2</sub> N <sub>2</sub> O <sub>5</sub> Si Octanol (octyl alcohol) C <sub>2</sub> H <sub>14</sub> O Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH:CH(CH <sub>2</sub> ) <sub>7</sub> COOH Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> Si Octanol (octyl alcohol) C <sub>2</sub> H <sub>14</sub> O Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH:CH(CH <sub>2</sub> ) <sub>7</sub> COOH Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> P Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> P Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> P Parafin oll Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> P Paraffin oil Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> Sodium sulphate Na <sub></sub>	N	Sodium bisulfite NaHSO <sub>3</sub>
Nicotine CrahtraN2 Nicotine CrahtraN2 Sodium nitrate NaNO3 Nicotine CrahtraN2 Sodium silicate Na <sub>2</sub> O <sub>3</sub> Si OCtanol (octyl alcohol) C <sub>2</sub> H <sub>18</sub> O Sodium silicate Na <sub>2</sub> O <sub>3</sub> Si Octanol (octyl alcohol) C <sub>2</sub> H <sub>18</sub> O Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Nicotine GrahtraN2 Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Nicotine GrahtraN2 Sodium sulphate Na <sub>2</sub> SO <sub>3</sub> P Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P Paraffin oil Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> Sodium thiosulfate Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Sorbitol C <sub>2</sub> H <sub>14</sub> O <sub>6</sub> Paraffin C <sub>1</sub> H <sub>20</sub> C <sub>2</sub> Starch Starch Pentanol C <sub>2</sub> H <sub>12</sub> O <sub>6</sub> Starch Pentanol C <sub>3</sub> H <sub>12</sub> OH Stearic acid C <sub>1</sub> /H <sub>28</sub> COOH Percaulic acid HCLO <sub>4</sub> Styrene C <sub>4</sub> H <sub>5</sub> CH·CH <sub>2</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>6</sub> OH Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>6</sub> OH Phenol & phenolic derivatives C <sub>6</sub> H <sub>6</sub> OH Potassium chloride KCl Talcum Mg3[Si4O10 (OH)2] Potassium hydroxide up to 10% KOH Tannin C <sub>70</sub> H <sub>16</sub> CO <sub>46</sub> Tartaric acid C <sub>4</sub> /H <sub>6</sub> O <sub>6</sub> Tartaric acid C <sub>4</sub> /H <sub>6</sub> O <sub>6</sub> Potassium indiate KNO <sub>3</sub> Tartaric acid C <sub>4</sub> /H <sub>6</sub> O <sub>6</sub> Tetrahydrofuran C <sub>4</sub> H <sub>6</sub> O Potassium sulphate K <sub>5</sub> SO <sub>4</sub> Tetrahioromethane CCl <sub>4</sub> Totassium sulphate K <sub>5</sub> SO <sub>4</sub> Tetrahioromethane CCl <sub>4</sub> Totassium aluminium sulphate KAl(SO <sub>4</sub> ) <sub>2</sub> Thymol C <sub>16</sub> H <sub>14</sub> O Potassium bromate KBrO <sub>3</sub> Totassium bromate KBrO <sub>3</sub> Trichloroethylene C <sub>2</sub> HCl <sub>3</sub> Tryptophan C <sub>11</sub> H <sub>16</sub> O <sub>2</sub> N <sub>2</sub> Tropanol C <sub>3</sub> H <sub>1</sub> OH Turpentine Sodium caldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium caldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium caldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium caldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium caldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium caldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium caldenda ZnCO <sub>3</sub> Zinki sulfate ZnSO <sub>4</sub>	Nail polish	Sodium hydroxide up to 10% NaOH
Nicotine C₁₀H₁₄N₂         Sodium phosphate Na₃PO₄           O         Sodium silicate Na₂O₂Si           Octanol (octyl alcohol) C₃H₁₅O         Sodium sulphate Na₂SO₄           Olicie acid CH₃(CH₂)₂CH:CH(CH₂)₂COOH         Sodium sulphite Na₂SO₃           P         Sodium sulphite Na₂SO₃           P-aminoacetophenone NH₂C₀H₄COCH₃         Sodium tartrate Na₂C₀H₄O₀           P-araffin oil         Sorbitol C₂H₄C₀B₂           Paraffin C₃H₂₀₂         Starch           Pentanol C₂H₁₂OH         Stearic acid C₁₁H₃₀COOH           Percaulic acid HCLO₄         Styrene C₄H₂ CH:CH₂           Phenol & phenolic derivatives C₂H₃OH         Sugar and sugar derivatives H₂₂O₁₁           Phenol & phenolic derivatives C₂H₃OH         Sugar and sugar derivatives H₂₂O₁₁           Phenolphthalein C₂₀H₄NO₂OH         T           Potassium chloride KCl         Talcum Mʒʒ[Si4O10 (OH)₂]           Potassium hydroxide up to 10% KOH         Tantaric acid C₂H₂O₄           Potassium in intrate KNO₃         Tetrachloromethane CCl₄           Potassium older KIO₃         Tetrachloromethane CCl₄           Potassium sulphate K₄SO₄         Tetrachloromethane CCl₄           Potassium sulphate K₄SO₃         Tetrachloromethane CCl₄           Potassium sulphate KAI(SO₄)₂         Thymol C₁₀H₂O₃           Potassium bromate KBrO₃         Tol	Nail polish remover	Sodium hyposulphite Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub>
Octanol (octyl alcohol) C <sub>8</sub> H <sub>16</sub> O         Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>3</sub> (CH <sub>2</sub> )r,CH:CH(CH <sub>2</sub> )r,COOH         Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Olive oil         Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P         Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P-aminoacetophenone NH <sub>2</sub> C <sub>6</sub> H <sub>6</sub> COCH <sub>3</sub> Sodium thiosulfate Na <sub>2</sub> C <sub>2</sub> H <sub>4</sub> O <sub>6</sub> Paraffin oil         Sorbitol C <sub>6</sub> H <sub>14</sub> O <sub>6</sub> Paraffin C <sub>1</sub> H <sub>2</sub> D <sub>1</sub> Starch           Pentanol C <sub>5</sub> H <sub>12</sub> OH         Stearic acid C <sub>1</sub> TH <sub>35</sub> COOH           Percaulic acid HCLO <sub>4</sub> Styrene C <sub>6</sub> H <sub>5</sub> CH:CH <sub>2</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Potassium hydroxide up to 10% KOH         Tanian         Tertanlor C <sub>1</sub> H <sub>2</sub> O <sub>2</sub> O           Potassium intrate K <sub>2</sub> O <sub>4</sub> H <sub>2</sub> O <sub>6</sub> <td>Nickel sulphate NiSO<sub>4</sub></td> <td>Sodium nitrate NaNO<sub>3</sub></td>	Nickel sulphate NiSO <sub>4</sub>	Sodium nitrate NaNO <sub>3</sub>
Octanol (octyl alcohol)         C <sub>9</sub> H <sub>16</sub> O         Sodium sulphate Na <sub>2</sub> SO <sub>4</sub> Oleic acid CH <sub>3</sub> (CH <sub>2</sub> )r,CH:CH(CH <sub>2</sub> )r,COOH         Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P         Sodium sulphite Na <sub>2</sub> SO <sub>3</sub> P         Sodium thiosulfate Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Paraffin oil         Sodium thiosulfate Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Paraffin Cn <sub>1</sub> P <sub>2</sub> n-2         Starch           Pentanol Cn <sub>2</sub> H <sub>12</sub> OH         Stearic acid C <sub>1</sub> rH <sub>30</sub> COOH           Percaulic acid HCLO <sub>4</sub> Styrene Cn <sub>2</sub> H <sub>2</sub> CHCHCH <sub>2</sub> Phenolè phenolic derivatives Cn <sub>2</sub> H <sub>3</sub> OH         Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenolèphthalein Cn <sub>2</sub> H <sub>14</sub> O <sub>3</sub> OH         T           Potassium chloride KCI         Talcum Mg3[Si4O10 (OH)2]           Potassium hydroxide up to 10% KOH         Tanin Cn <sub>2</sub> H <sub>22</sub> O <sub>4</sub> Potassium initrate KNO <sub>3</sub> Tartaric acid Cn <sub>4</sub> H <sub>9</sub> O <sub>6</sub> Potassium sulphate KNO <sub>3</sub> Tetrachloromethane CCl <sub>4</sub> Potassium sulphate KNO <sub>3</sub> Tetralnin Cn <sub>1</sub> H <sub>12</sub> Potassium tartrate Kno <sub>4</sub> Cn <sub>4</sub> H <sub>9</sub> O <sub>6</sub> Tetralnin Cn <sub>1</sub> H <sub>12</sub> Potassium bromate KBrO <sub>3</sub> Toluene Cn <sub>2</sub> H <sub>2</sub> CN <sub>1</sub> Potassium bromate KBrO <sub>3</sub> Toluene Cn <sub>2</sub> H <sub>2</sub> CO <sub>1</sub> Potassium bromate KBrO <sub>3</sub> Toluene Cn <sub>2</sub> H <sub>2</sub> CO <sub>1</sub> Potassium carbonate Kn <sub>2</sub> CO <sub>3</sub> <td< td=""><td>Nicotine C<sub>10</sub>H<sub>14</sub>N<sub>2</sub></td><td>Sodium phosphate Na<sub>3</sub>PO<sub>4</sub></td></td<>	Nicotine C <sub>10</sub> H <sub>14</sub> N <sub>2</sub>	Sodium phosphate Na <sub>3</sub> PO <sub>4</sub>
Oleic acid CH₃(CH₂)rCH:CH(CH₂)rCOOH         Sodium sulphite Na₂SO₃           Olive oil         Sodium sulphite Na₂SO₃           P         Sodium sulphite Na₂SO₃           P-aminoacetophenone NH₂CeH₄COCH₃         Sodium thiosulfate Na₂C₄H₄O₀           P-araffin oil         Sorbitol CeH₄O₀           Paraffin CnH₂c+2         Starch           Pentanol CeH₃CH         Stearic acid Cr₁rH₃COOH           Percaulic acid HCLO₄         Styrene CeH₅CH-CH₂           Phenol & phenolic derivatives CeH₀OH         Sugar and sugar derivatives H₂₂O₁1           Phenol & phenolic derivatives CeH₀OH         Sulphur S           P-Nitrophenol CeH₄NO₂OH         T           Potassium chloride KCl         Talcum Mg₃[Si4O10 (OH)2]           Potassium hydroxide up to 10% KOH         Tannin Cr₂cH₂Coa           Potassium intrate KNO₃         Tartaric acid CaH₂O₀           Potassium sulphate K₂SO₄         Tetralln Cr₀dH₂Coa           Potassium sulphate K₂CoA         Tetralln Cr₀dH₂Coa           Potassium turrate K₂CaH₄O₀         Thiourea NH₂CSNH₂           Potassium bromate KBrO₃         Toluene CeH₂CH₃           Potassium bromate KBrO₃         Toluene CeH₂CH₃           Potassium bromate KBrO₃         Trehalose Cr₂H₂Co₃1           Propanol C₃H₂OH         Turpentine           U         U <td>0</td> <td>Sodium silicate Na<sub>2</sub>O<sub>3</sub>Si</td>	0	Sodium silicate Na <sub>2</sub> O <sub>3</sub> Si
Olive oil         Sodium sulphite Na₂SO₃           P         Sodium tartrate Na₂C₂H₄O₆           P-aminoacetophenone NH₂C₆H₄COCH₃         Sodium tartrate Na₂C₂H₄O₆           P-araffin oil         Sorbitol C₆H₃AO₆           Paraffin CₙH₂m₂         Starch           Pentanol C₆H₃OH         Stearic acid C₁rH₃₅COOH           Percaulic acid HCLO₄         Styrene C₆H₆CH:CH₂           Phenol â phenolic derivatives C₆H₆OH         Sugar and sugar derivatives H₂₂O₁₁           Phenolphthalein CạḍH₃O₂         Sulphur S           p-Nitrophenol C₆H₄NO₂OH         T           Potassium chloride KCl         Talcum Mg₃[Si4O10 (OH)2]           Potassium hydroxide up to 10% KOH         Tannin CȝॡH₂SO₄₆           Potassium initrate KNO₃         Tartaric acid C₄H₆O₆           Potassium intrate KNO₃         Tetrachloromethane CCl₄           Potassium sulphate KጵSO₄         Tetralin C₁₀H₂₂           Potassium sulphate KጵSO₄         Tetralin C₁₀H₂₂           Potassium aluminium sulphate KAI(SO₄)₂         Thymol C₁₀H₄O           Potassium bromate KBrO₃         Toluene C₆H₅CH₃           Potassium bromate KBr         Trehalose C₁₂H₂₂O₁¹           Potassium bromate KBr         Treptopan C₁·H₁₂O₂O₂           Potassium bromate Kare(CN)₆         Typtophan C₁·H₂₂O₂N₂           Propanol C₃H₂AOH	Octanol (octyl alcohol) C <sub>8</sub> H <sub>18</sub> O	Sodium sulphate Na <sub>2</sub> SO <sub>4</sub>
Paminoacetophenone NH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> COCH <sub>3</sub> Sodium tarirate Na <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> P-aminoacetophenone NH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> COCH <sub>3</sub> Sodium thiosulfate Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Paraffin cil Sorbitol C <sub>6</sub> H <sub>14</sub> O <sub>6</sub> Paraffin C <sub>6</sub> H <sub>20H2</sub> Starch Pentanol C <sub>5</sub> H <sub>14</sub> OH Stearic acid C <sub>17</sub> H <sub>35</sub> COOH Percaulic acid HCLO <sub>4</sub> Styrene C <sub>6</sub> H <sub>5</sub> CH:CH <sub>2</sub> Phenola Rephanolic derivatives C <sub>6</sub> H <sub>5</sub> OH Phenolphthalein C <sub>2</sub> OH <sub>14</sub> O <sub>4</sub> Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Phenolphthalein C <sub>2</sub> OH <sub>14</sub> O <sub>4</sub> Sulphur S Poltassium chloride KCl Talcum Mg3[Si4O10 (OH)2] Potassium hydroxide up to 10% KOH Tannin C <sub>7</sub> OH <sub>52</sub> O <sub>46</sub> Potassium indate KlO <sub>3</sub> Tartaric acid C <sub>4</sub> H <sub>9</sub> O <sub>6</sub> Potassium intrate KNO <sub>3</sub> Tetrachloromethane CCl <sub>4</sub> Potassium sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Tetrahydrofuran C <sub>4</sub> H <sub>9</sub> O Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Tetrain C <sub>10</sub> H <sub>12</sub> Thiourea NH <sub>2</sub> CSNH <sub>2</sub> Potassium aluminium sulphate KAl(SO <sub>4</sub> ) <sub>2</sub> Thymol C <sub>10</sub> H <sub>14</sub> O Potassium bromate KBrO <sub>3</sub> Toluene C <sub>9</sub> H <sub>5</sub> CNH <sub>2</sub> O Potassium bromate KBrO <sub>3</sub> Toluene C <sub>9</sub> H <sub>5</sub> CNH <sub>2</sub> O Potassium bromate KBrO <sub>3</sub> Trehalose C <sub>12</sub> H <sub>2</sub> O <sub>2</sub> O <sub>11</sub> Trehalose C <sub>12</sub> H <sub>2</sub> O <sub>2</sub> O <sub>11</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Trichloroethylene C <sub>2</sub> HCl <sub>3</sub> Potassium bromate KAFe(CN) <sub>8</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> O <sub>2</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> O <sub>2</sub> Trichloroethylene C <sub>2</sub> HCl <sub>3</sub> Potassium exacyanoferrate K <sub>4</sub> Fe(CN) <sub>8</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> O <sub>2</sub> Trichloroethylene C <sub>5</sub> HCl <sub>3</sub> Raffinose C <sub>16</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O Vanillin C <sub>8</sub> H <sub>8</sub> O S W Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOH X Sodium acetate CH <sub>5</sub> OONa Xylene C <sub>6</sub> H <sub>4</sub> (CH <sub>5</sub> ) <sub>2</sub> Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Zinc chloride ZnCl <sub>2</sub> Zinc kulfate ZnSO <sub>4</sub>	Oleic acid CH <sub>3</sub> (CH <sub>2</sub> ) <sub>7</sub> CH:CH(CH <sub>2</sub> ) <sub>7</sub> COOH	Sodium sulphide Na <sub>2</sub> S
P-aminoacetophenone NH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> COCH <sub>3</sub> Paraffin oil  Sorbitol C <sub>6</sub> H <sub>14</sub> O <sub>6</sub> Starch  Pertaniol C <sub>5</sub> H <sub>12</sub> OH  Pentaniol C <sub>5</sub> H <sub>12</sub> OH  Percaulic acid HCLO <sub>4</sub> Styrene C <sub>6</sub> H <sub>5</sub> CH:CH <sub>2</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenolphthalein C <sub>20</sub> H <sub>14</sub> O <sub>4</sub> P-Nitrophenol C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> OH  T  Potassium chloride KCI  Potassium hydroxide up to 10% KOH  Potassium initrate KNO <sub>3</sub> Potassium sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium aluminium sulphate KAl(SO <sub>4</sub> ) <sub>2</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Propanol C <sub>3</sub> H <sub>2</sub> OH  Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Propanol C <sub>3</sub> H <sub>2</sub> OH  Propinglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH  Pyridine C <sub>5</sub> H <sub>5</sub> N  R  Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> R  Salfinose C <sub>16</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O  Vanillin C <sub>6</sub> H <sub>6</sub> O <sub>3</sub> S  W  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  X Velene C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> Sodium acrbonate N <sub>2</sub> CO <sub>3</sub> Sodium acrbonate N <sub>2</sub> CO <sub>3</sub> Sodium carbonate N <sub>2</sub> CO <sub>3</sub> Sodium carbonate N <sub>3</sub> CO <sub>5</sub> 5H <sub>2</sub> O  Zinc chloride ZnCl <sub>2</sub> Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>6</sub> O <sub>7</sub> 5H <sub>2</sub> O	Olive oil	Sodium sulphite Na <sub>2</sub> SO <sub>3</sub>
Paraffin oil         Sorbitol C₀H₁₄O₀           Paraffin C₀H₂₀₁₂         Starch           Pentanol C₀H₂₀∪H         Stearic acid C₁₁H₃₀COOH           Percaulic acid HcLO₄         Styrene C₀H₅ CH.CH₂           Phenol & phenolic derivatives C₀H₅OH         Sugar and sugar derivatives H₂₂O₁₁           Phenol Philander C₂₀H₁₄O₄         Sulphur S           P-Nitrophenol C₀H₄NO₂OH         T           Potassium chloride KCl         Talcum Mg₃(Si4O10 (OH)₂)           Potassium bidate KlO₃         Tartaria caid C₄H₄O₀           Potassium iodate KlO₃         Tartaria caid C₄H₄O₀           Potassium sulphate KNaC₄H₄O₀         Tetrahydrofuran C₄H₃O           Potassium sulphate K₂C₄A₀         Tetralin C₁₀H₁₂           Potassium sulphate K₂C₄A,A₀         Thourea NH₂CSNH₂           Potassium bromate KβCO₃         Toluene C₀H₅CH₃           Potassium bromate KBrO₃         Toluene C₀H₅CH₃           Potassium bromate KβcO₃         Toluene C₀H₅CH₃           Potassium bromate KβcO₃         Trehalose C₁₂H₂2O₁¹           Potassium bromate KβcO₃         Trehalose C₁₂H₂2O₁¹           Potassium hexacyanoferrate K₄Fe(CN)₀         Tryptophan C₁₁H₁₂O₂N₂           Propanol C₃H₂OH         Turpentine           1,2-Propylenglycol CH₃CHOHCH₂OH         U           Pyridine C₅H₅O         V	P	Sodium tartrate Na <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub>
Paraffin CnH₂n+2         Starch           Pentanol CsH₁2OH         Stearic acid C₁7H₃5COOH           Percaulic acid HCLO₄         Styrene CeH₅ CH⋅CH₂           Phenolè Aphenolic derivatives CeH₅OH         Sugar and sugar derivatives H₂2O₁1           Phenolphthalein C₂0H₁4O₄         Sulphur S           P-Nitrophenol CeH₄NO₂OH         T           Potassium chloride KCI         Talcum Mg3[Si4O10 (OH)2]           Potassium hydroxide up to 10% KOH         Tannin C₁6H₃2O₄6           Potassium iodate KlO₃         Tartaric acid C₄H₄O₆           Potassium sodium tartrate KNO₃         Tetrachloromethane CCl₄           Potassium sodium tartrate KNO₃         Tetrathydrofuran C₄H₆O           Potassium sulphate K₂SO₄         Tetralin C₁0H₁₂           Potassium sulphate K₂C₄H₄O₆         Thiourea NH₂CSNH₂           Potassium aluminium sulphate KAI(SO₄)₂         Thymol C₁₀H₁₄O           Potassium bromate KBrO₃         Toluene C₅H₃CH₃           Potassium bromate KBrO₃         Trehalose CH₂H₂CO₁           Potassium bromate KBrO₃         Trichloroethylene C₂HCl₃           Potassium bromate Kare(CN)₆         Tryptophan C₁₁H₁₂O₂N₂           Propanol C₃H₂OH         Turpentine           1,2-Propylenglycol CH₃CHOHCH₂OH         U           Pyridine C₃H₄N₂O₁₁ SH₂O         Vanillin C₃H₄O₃O₃	P-aminoacetophenone NH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> COCH <sub>3</sub>	Sodium thiosulfate Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>
Pentanol C <sub>6</sub> H <sub>12</sub> OH Percaulic acid HCLO <sub>4</sub> Styrene C <sub>6</sub> H <sub>5</sub> CH:CH <sub>2</sub> Shenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub> Shenolphthalein C <sub>20</sub> H <sub>14</sub> O <sub>4</sub> Sulphur S P-Nitrophenol C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> OH Potassium chloride KCl Potassium hydroxide up to 10% KOH Tannin C <sub>76</sub> H <sub>52</sub> O <sub>46</sub> Potassium iodate KlO <sub>3</sub> Tartaric acid C <sub>4</sub> H <sub>6</sub> O <sub>6</sub> Potassium sulphate KNO <sub>3</sub> Tetrachloromethane CCl <sub>4</sub> Potassium sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Tetrahydrofuran C <sub>4</sub> H <sub>6</sub> O Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Tetrahydrofuran C <sub>4</sub> H <sub>6</sub> O Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Tetrahydrofuran C <sub>4</sub> H <sub>6</sub> O Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Thiourea NH <sub>2</sub> CSNH <sub>2</sub> Potassium bromate K <sub>2</sub> CO <sub>3</sub> Toluene C <sub>6</sub> H <sub>5</sub> CH <sub>5</sub> Potassium bromate KBrO <sub>3</sub> Toluene C <sub>6</sub> H <sub>5</sub> CH <sub>5</sub> Potassium bromide KBr Trehalose C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> Potassium bromide KBr Trehalose C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> Potassium hexacyanoferrate K <sub>4</sub> Fe(CN) <sub>6</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> N <sub>2</sub> Propanol C <sub>5</sub> H <sub>7</sub> OH Turpentine U <sub>1,2</sub> -Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH Uric acid C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O <sub>3</sub> Raffinose C <sub>18</sub> H <sub>3</sub> O <sub>1</sub> 5H <sub>2</sub> O Vanillin C <sub>6</sub> H <sub>8</sub> O <sub>3</sub> S W Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH Salicylic aidehyde C <sub>6</sub> H <sub>4</sub> OH CHO Sodium acetate CH <sub>3</sub> COONa Sylene C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> Zinc chloride ZnCl <sub>2</sub> Zinc kulfate ZnSO <sub>4</sub>	Paraffin oil	Sorbitol C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>
Percaulic acid HCLO <sub>4</sub> Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Potassium choride KCI  Potassium hydroxide up to 10% KOH  Tannin C <sub>76</sub> H <sub>52</sub> O <sub>46</sub> Potassium idate KlO <sub>3</sub> Potassium intrate KNO <sub>3</sub> Potassium sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromide KBr  Trehalose C <sub>12</sub> H <sub>2</sub> O <sub>11</sub> Potassium bromide KBr  Trehalose C <sub>12</sub> H <sub>2</sub> O <sub>11</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Trichloroethylene C <sub>2</sub> HCl <sub>3</sub> Potassium hexacyanoferrate K <sub>4</sub> Fe(CN) <sub>6</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> N <sub>2</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH  Turpentine  1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH  Pyridine C <sub>5</sub> H <sub>5</sub> N  R  Raffinose C <sub>18</sub> H <sub>3</sub> O <sub>11</sub> 5H <sub>2</sub> O  Vanillin C <sub>6</sub> H <sub>6</sub> O <sub>3</sub> S  W  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO  X  Sodium acetate CH <sub>3</sub> COONa  Sodium acetate CH <sub>3</sub> COONa  Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Zinc chloride ZnCl <sub>2</sub> Zink sulfate ZnSO <sub>4</sub>	Paraffin C <sub>n</sub> H <sub>2n+2</sub>	Starch
Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH  Phenolphthalein C <sub>20</sub> H <sub>14</sub> O <sub>4</sub> P-Nitrophenol C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> OH  Potassium chloride KCI  Potassium iodate KIO <sub>3</sub> Potassium sodium tartrate KNO <sub>3</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium bromate KBrO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>4</sub> Fe(CN) <sub>6</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH  1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH  Pyridine C <sub>6</sub> H <sub>6</sub> N  Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O  Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O  Raffinose C <sub>18</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Sodium acetate CH <sub>3</sub> CCONa  Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Zinc koloride ZnC <sub>2</sub> Zinc koloride ZnCl <sub>2</sub> Zinc koloride ZnCl <sub>2</sub> Zinc koloride ZnCl <sub>2</sub>	Pentanol C₅H <sub>12</sub> OH	Stearic acid C <sub>17</sub> H <sub>35</sub> COOH
Phenolphthalein C <sub>20</sub> H <sub>14</sub> O <sub>4</sub> p-Nitrophenol C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> OH Potassium chloride KCI Potassium hydroxide up to 10% KOH Potassium intrate KIO <sub>3</sub> Potassium intrate KNO <sub>3</sub> Tetrachloromethane CCI <sub>4</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hermide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate C <sub>1</sub> H <sub>2</sub> CO <sub>2</sub> N <sub>2</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> Uric acid C <sub>3</sub> H <sub>4</sub> N <sub>4</sub> O <sub>3</sub> Vanillin C <sub>6</sub> H <sub>6</sub> O <sub>3</sub> Valicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH Xodium acetate CH <sub>3</sub> COONa Xylene C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> Sodium carbonate N <sub>2</sub> CO <sub>3</sub> Zodium carbonate N <sub>2</sub> CO <sub>3</sub> Zinc chloride ZnCl <sub>2</sub> Zinc sloium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O	Percaulic acid HCLO <sub>4</sub>	Styrene C <sub>6</sub> H <sub>5</sub> CH:CH <sub>2</sub>
p-Nitrophenol C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> OH Tolum Mg3[Si4O10 (OH)2] Potassium chloride KCl Talcum Mg3[Si4O10 (OH)2] Potassium hydroxide up to 10% KOH Tannin C <sub>76</sub> H <sub>52</sub> O <sub>46</sub> Potassium iodate KIO <sub>3</sub> Tartaric acid C <sub>4</sub> H <sub>6</sub> O <sub>6</sub> Potassium nitrate KNO <sub>3</sub> Tetrachloromethane CCl <sub>4</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Tetrahydrofuran C <sub>4</sub> H <sub>6</sub> O Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Tetralin C <sub>10</sub> H <sub>12</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Thiourea NH <sub>2</sub> CSNH <sub>2</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Thymol C <sub>10</sub> H <sub>14</sub> O Potassium bromate KBrO <sub>3</sub> Toluene C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> Potassium bromide KBr Trehalose C <sub>12</sub> H <sub>2</sub> O <sub>11</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Trichloroethylene C <sub>2</sub> HCl <sub>3</sub> Potassium hexacyanoferrate K <sub>4</sub> Fe(CN) <sub>6</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> N <sub>2</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH Turpentine 1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH U Pyridine C <sub>5</sub> H <sub>5</sub> N Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> Raffinose C <sub>16</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O Vanillin C <sub>6</sub> H <sub>6</sub> O <sub>3</sub> S Salicylic acid C <sub>5</sub> H <sub>4</sub> OHCOOH Water H <sub>2</sub> O Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium acetate CH <sub>3</sub> COONa Xylene C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Zink sulfate ZnSO <sub>4</sub>	Phenol & phenolic derivatives C <sub>6</sub> H <sub>5</sub> OH	Sugar and sugar derivatives H <sub>22</sub> O <sub>11</sub>
Potassium chloride KCI Talcum Mg3[Si4O10 (OH)2]  Potassium hydroxide up to 10% KOH Tannin $C_{7e}H_{52}O_{46}$ Potassium iodate KlO <sub>3</sub> Tartaric acid $C_4H_8O_6$ Potassium nitrate KNO <sub>3</sub> Tetrachloromethane CCl <sub>4</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Tetrahydrofuran $C_4H_6O$ Potassium sulphate $K_2SO_4$ Tetralin $C_{10}H_{12}$ Potassium sulphate $K_2C_4H_4O_6$ Thiourea $NH_2CSNH_2$ Potassium aluminium sulphate KAI( $SO_4$ ) <sub>2</sub> Thymol $C_{10}H_{14}O$ Potassium bromate KBrO <sub>3</sub> Toluene $C_6H_5CH_3$ Potassium bromide KBr Trehalose $C_{12}H_{22}O_{11}$ Potassium carbonate $K_2CO_3$ Trichloroethylene $C_2HCl_3$ Potassium hexacyanoferrate $K_4Fe(CN)_6$ Tryptophan $C_{11}H_{12}O_2N_2$ Propanol $C_3H_7OH$ Turpentine  1,2-Propylenglycol $CH_3CHOHCH_2OH$ Urea solution $CO(NH_2)_2$ R  Raffinose $C_1BH_{32}O_{11}$ $SH_2O$ Vanillin $C_8H_8O_3$ S  W  Salicylic acid $C_6H_4OHCOOH$ Water $H_2O$ Salicylic aldehyde $C_6H_4OHCOOH$ X  Sodium acetate $CH_3COON_8$ Xylene $C_6H_4(CH_3)_2$ Sodium carbonate $Na_2CO_3$ Zinc chloride $Z_1COO_2$ Zink sulfate $Z_1COO_2$	Phenolphthalein C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>	Sulphur S
Potassium hydroxide up to 10% KOH  Potassium iodate KIO <sub>3</sub> Potassium iodate KIO <sub>3</sub> Potassium nitrate KNO <sub>3</sub> Potassium nitrate KNO <sub>3</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromide KBr  Potassium bromide KBr  Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hexacyanoferrate K <sub>4</sub> Fe(CN) <sub>6</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH  1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH  Pyridine C <sub>5</sub> H <sub>5</sub> N  Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O  Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H	p-Nitrophenol C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> OH	Т
Potassium iodate KIO <sub>3</sub> Potassium nitrate KNO <sub>3</sub> Potassium nitrate KNO <sub>3</sub> Potassium nitrate KNO <sub>3</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> CA <sub>4</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromide KBr Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH Propanol C <sub>3</sub> H <sub>7</sub> OH Pyridine C <sub>5</sub> H <sub>5</sub> N Pyridine C <sub>5</sub> H <sub>5</sub> N Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> R Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O Vanillin C <sub>8</sub> H <sub>8</sub> O <sub>3</sub> S W Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium acetate CH <sub>3</sub> COONa Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Z Sodium chloride NaCl Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O Zink sulfate ZnSO <sub>4</sub>	Potassium chloride KCI	Talcum Mg3[Si4O10 (OH)2]
Potassium nitrate KNO <sub>3</sub> Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> CO <sub>4</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromide KBr  Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium hexacyanoferrate K <sub>4</sub> Fe(CN) <sub>6</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH  Turpentine  1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH  Pyridine C <sub>5</sub> H <sub>5</sub> N  Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> R  Uric acid C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O <sub>3</sub> Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O  Rhamnose C <sub>6</sub> H <sub>12</sub> O <sub>5</sub> H <sub>2</sub> O  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO  X  Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Z  Sodium chloride NaCl  Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Zink sulfate ZnSO <sub>4</sub>	Potassium hydroxide up to 10% KOH	Tannin C <sub>76</sub> H <sub>52</sub> O <sub>46</sub>
Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium sulphate K <sub>2</sub> SO <sub>4</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium bromate KBrO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH  Turpentine  1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH  Pyridine C <sub>5</sub> H <sub>5</sub> N  R  Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> R  Uric acid C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O <sub>3</sub> S  W  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO  X  Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Z  Sodium clirate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Zinc chloride ZnCl <sub>2</sub> Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Zink sulfate ZnSO <sub>4</sub>	Potassium iodate KIO <sub>3</sub>	Tartaric acid C <sub>4</sub> H <sub>8</sub> O <sub>6</sub>
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Potassium nitrate KNO <sub>3</sub>	Tetrachloromethane CCI <sub>4</sub>
Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub> Thymol C <sub>10</sub> H <sub>14</sub> O Potassium bromate KBrO <sub>3</sub> Toluene C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> Potassium bromide KBr Potassium bromide KBr Trehalose C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> Potassium carbonate K <sub>2</sub> CO <sub>3</sub> Trichloroethylene C <sub>2</sub> HCl <sub>3</sub> Potassium hexacyanoferrate K <sub>4</sub> Fe(CN) <sub>6</sub> Tryptophan C <sub>11</sub> H <sub>12</sub> O <sub>2</sub> N <sub>2</sub> Propanol C <sub>3</sub> H <sub>7</sub> OH Turpentine 1,2-Propylenglycol CH <sub>3</sub> CHOHCH <sub>2</sub> OH U Pyridine C <sub>5</sub> H <sub>5</sub> N Urea solution CO(NH <sub>2</sub> ) <sub>2</sub> R Raffinose C <sub>18</sub> H <sub>32</sub> O <sub>11</sub> 5H <sub>2</sub> O Vanillin C <sub>8</sub> H <sub>8</sub> O <sub>3</sub> S W Salicylic acid C <sub>5</sub> H <sub>4</sub> OHCOOH Water H <sub>2</sub> O Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO X Sodium acetate CH <sub>3</sub> COONa Xylene C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Z Sodium clirate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O Zink sulfate ZnSO <sub>4</sub>	Potassium Sodium tartrate KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub>	Tetrahydrofuran C <sub>4</sub> H <sub>8</sub> O
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Potassium sulphate K <sub>2</sub> SO <sub>4</sub>	Tetralin C <sub>10</sub> H <sub>12</sub>
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Potassium tartrate K <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub>	Thiourea NH <sub>2</sub> CSNH <sub>2</sub>
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Potassium aluminium sulphate KAI(SO <sub>4</sub> ) <sub>2</sub>	Thymol C <sub>10</sub> H <sub>14</sub> O
Potassium carbonate $K_2CO_3$ Trichloroethylene $C_2HCl_3$ Potassium hexacyanoferrate $K_4Fe(CN)_6$ Tryptophan $C_{11}H_{12}O_2N_2$ Propanol $C_3H_7OH$ Turpentine $1,2$ -Propylenglycol $CH_3CHOHCH_2OH$ Urea solution $CO(NH_2)_2$ Uric acid $C_5H_5N$ Urea solution $CO(NH_2)_2$ V Raffinose $C_{18}H_{32}O_{11}$ $5H_2O$ V Vanillin $C_8H_8O_3$ S W Salicylic acid $C_6H_4OHCOOH$ Water $H_2O$ Salicylic aldehyde $C_6H_4OHCOOH$ Water $H_2O$ Sodium acetate $CH_3COONa$ Xylene $C_6H_4(CH_3)_2$ Sodium carbonate $CON_2CON_3$ Z Sodium chloride $CON_3CON_3$ Z inc chloride $CON_3CON_3$ Z Sodium citrate $CON_3CON_3$ Z Z Z Sodium citrate $CON_3CON_3$ Z Z Z Z Sodium citrate $CON_3CON_3$ Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	Potassium bromate KBrO <sub>3</sub>	Toluene C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Potassium bromide KBr	Trehalose C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Potassium carbonate K <sub>2</sub> CO <sub>3</sub>	Trichloroethylene C <sub>2</sub> HCl <sub>3</sub>
$\begin{array}{llllllllllllllllllllllllllllllllllll$		
$\begin{array}{llllllllllllllllllllllllllllllllllll$		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	•	
$\begin{array}{llllllllllllllllllllllllllllllllllll$		Urea solution CO(NH <sub>2</sub> ) <sub>2</sub>
Raffinose $C_{18}H_{32}O_{11}  5H_2O$	•	· ·
$\begin{array}{llllllllllllllllllllllllllllllllllll$		
Salicylic acid C <sub>6</sub> H <sub>4</sub> OHCOOH  Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO  Sodium acetate CH <sub>3</sub> COONa  Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Sodium chloride NaCl  Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Water H <sub>2</sub> O  X  Xylene C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> Z  Zinc chloride ZnCl <sub>2</sub> Zink sulfate ZnSO <sub>4</sub>		
$\begin{array}{llllllllllllllllllllllllllllllllllll$		
Salicylic aldehyde C <sub>6</sub> H <sub>4</sub> OH CHO  Sodium acetate CH <sub>3</sub> COONa  Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Sodium chloride NaCl  Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Zink sulfate ZnSO <sub>4</sub>		Water H₂O
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	-	
Sodium carbonate Na <sub>2</sub> CO <sub>3</sub> Sodium chloride NaCl  Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O  Zink sulfate ZnSO <sub>4</sub>	· · · · · · · · · · · · · · · · · · ·	
Sodium chloride NaCl Zinc chloride $ZnCl_2$ Sodium citrate $Na_3C_6H_5O_7$ $5H_2O$ Zink sulfate $ZnSO_4$		
Sodium citrate Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> 5H <sub>2</sub> O Zink sulfate ZnSO <sub>4</sub>		
	Sodium diethyl barbiturate NaC <sub>8</sub> H <sub>11</sub> N <sub>2</sub> O <sub>3</sub>	



Some chemicals might cause damage to melamine surfaces depending on their pH value, exposure time, and temperature. The following substances must therefore be allowed to act for only a short period of time, at maximum for 10 to 15 minutes. in this time, the surface must first be wiped clean with a moist cloth and then wiped dry.

Table 3:

Substances causing laminate surface damage after prolonged exposure		
Aluminium chloride AlCl <sub>3</sub>	Millon's reagent OHg <sub>2</sub> NH <sub>2</sub> Cl	
Amidosulfonic acid NH <sub>2</sub> SO <sub>3</sub> H	Nitric acid up to 10% HNO <sub>3</sub>	
Ammonium hydrogen sulphate NH <sub>4</sub> HSO <sub>4</sub>	Oxalic acid COOH COOH	
Arsenic acid up to approx. 10% H <sub>3</sub> AsO <sub>4</sub>	Phosphoric acid up to 10% H <sub>3</sub> PO <sub>4</sub>	
Crystal violet (Gentian violet) C <sub>25</sub> H <sub>30</sub> N <sub>3</sub> Cl	Picric acid C <sub>6</sub> H <sub>2</sub> OH(NO <sub>2</sub> ) <sub>3</sub>	
Dyes and bleaching agents	Potassium chromate K <sub>2</sub> CrO <sub>4</sub>	
Ferric chloride FeCl <sub>2</sub>	Potassium di-chromate K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	
Ferrous chloride FeCl <sub>3</sub>	Potassium hydrogen sulphate KHSO <sub>4</sub>	
Formic acid up to 10% HCOOH	Potassium hydroxide over 10% KOH	
Fuchsine C <sub>19</sub> H <sub>19</sub> N <sub>3</sub> O	Potassium iodide KI	
Hydrochloric acid up to 10% HCl	Potassium permanganate KMnO <sub>4</sub>	
Hydrogen peroxide 3-30% H <sub>2</sub> O <sub>2</sub>	Silver nitrate AgNO <sub>3</sub>	
Inorganic acids up to 10%	Sodium hydrogen sulphate NaHSO <sub>4</sub>	
lodine l <sub>2</sub>	Sodium hydroxide over 10% NaOH	
Lithium hydroxide over approx 10% LiOH	Sodium hypochlorite (chlorine bleach) NaOCI	
Mercuric di-chromate HgCr <sub>2</sub> O <sub>7</sub>	Sulphuric acid up to 10% H <sub>2</sub> SO <sub>4</sub>	
Methylene Blue C <sub>16</sub> H <sub>18</sub> N <sub>3</sub> CIS		

The chemicals listed in Table 4 cause irreversible laminate surface damage. Any contact, no matter how brief, should therefore be avoided.

Table 4:

Substances causing irreversible laminate-surface damage		
Adhesives (chemically hardened)	Hydrochloric acid* HCl	
Amidosulfonic acid* NH <sub>2</sub> SO <sub>3</sub> H	Hydrofluoric acid* HF	
Inorganic acids* eg	Hydrogen bromide* HBr	
Aqua regia* HNO <sub>3</sub> + HCI = 1:3	Nitric acid* HNO <sub>3</sub>	
Arsenic acid H <sub>3</sub> AsO <sub>4</sub>	Phosphoric acid* H <sub>3</sub> PO <sub>4</sub>	
Chrome sulphuric acid* K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> + H <sub>2</sub> SO <sub>4</sub>	Sulfuric acid* H <sub>2</sub> SO <sub>4</sub>	
Formic acid* HCOOH		

<sup>\*</sup> in concentrations over 10%

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### **AGGRESICE GASES**

Aggressive gases might take an negative effect on the optical appearance of Duropal laminate surfaces. Normally, however, their functional characteristics will not be affected.

Table 5:

## Substances causing laminate-surface damage

Acid fumes

Bromine Br<sub>2</sub>

Chlorine Cl<sub>2</sub>

Nitrous fumes NO<sub>x</sub> / N<sub>x</sub>O<sub>y</sub>

Sulphur dioxide SO<sub>2</sub>

#### PM HPL/elements

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