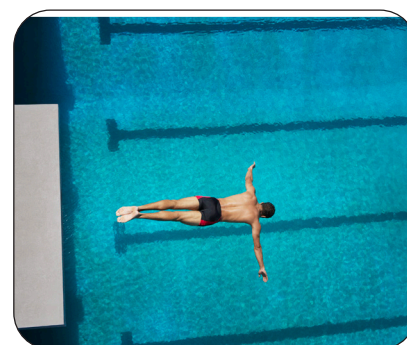


## Guide to chemical resistance *Guida alla compatibilità chimica*



## Chemical compatibility / Compatibilità chimica

### Guide to chemical resistance

At the moment, thermoplastic materials are widely used in pipe systems for domestic and industrial uses.

Thermoplastic materials have not only replaced traditional materials such as steel, cast iron, and copper in the transport of water, but have also replaced insulating materials and glass for the chemical industry. The cause of these different uses is due to the fact that for each use an appropriate thermoplastic material can be combined. This chapter provides a guide to the chemical compatibility of materials.

The information contained in this section was collected from tests performed by many international standardization organizations (ISO), and also by independent laboratories. The tests are based on the use of pure chemicals.

In the case of product mixtures, further tests should be performed to ascertain the effective resistance of the materials in given circumstances.

**The chemical resistance section should be consulted as a simple guide. Changes in composition, concentration or operating conditions under which the chemical compounds can be used could alter the chemical resistance of the materials.**

### Guida alla resistenza chimica

*Attualmente i materiali termoplastici vengono largamente utilizzati in sistemi di tubazioni per usi domestici e industriali. I materiali termoplastici non solo hanno sostituito i materiali tradizionali come l'acciaio, la ghisa e il rame nel trasporto dell'acqua, ma anche materiali coibentanti e vetro per l'industria chimica. La causa di questi differenti usi è dovuta al fatto che per ogni impiego è abbinabile un appropriato materiale termoplastico.*

*Questo capitolo fornisce una guida alla compatibilità chimica dei materiali. Le informazioni contenute in questa sezione sono state raccolte da tests eseguiti da molte organizzazioni internazionali di standardizzazione (ISO) e anche da laboratori indipendenti. I test sono basati sull'uso di prodotti chimici puri. Nel caso di miscele di prodotti, dovrebbero essere eseguiti ulteriori test per accertare l'effettiva resistenza dei materiali in date circostanze.*

**La sezione della resistenza chimica dovrebbe essere consultata come semplice guida. Cambi di composizione, concentrazione o condizioni di esercizio ai quali i composti chimici possono essere usati potrebbero alterare la resistenza chimica dei materiali.**

#### Marks / Legenda

|                              |  |
|------------------------------|--|
| ✓                            | Little or No effect / <i>Effetto minimo o nessun effetto</i>                                     |
| ○                            | Slight effect / <i>Effetto lieve</i>   |
| ⊗                            | Noticeable effect / <i>Effetto notevole</i>  |
| ×                            | Severe effect / <i>Effetto severo</i>  |
| Blank space<br>Spazio bianco | Not confirmed or no actual result / <i>Risultato non confermato o nessun risultato effettivo</i> |

| Chemicals              | Conc.           | Formula         | PVC-U |    |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |
|------------------------|-----------------|-----------------|-------|----|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|
|                        |                 |                 | 20    | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Temperature (°C)       |                 |                 |       |    |    |    |      |    |    |    |     |    |    |    |      |    |    |    |     |    |    |    |
| Acetaldehyde           | sol.ac (40%)    | CH3CHO          | x     |    |    | ✓  | ✓    | ✓  | ○  | x  |     |    |    | ✓  | ✓    | ✓  | ○  | ○  | ○   | ○  | x  |    |
| Acetaldehyde           | tecn.p. (100%)  | CH3CHO          | x     |    |    | ✓  | ✓    | ○  |    | x  |     |    |    | ✓  | ✓    | ○  |    | ○  | ○   | x  |    |    |
| Acetic Acid            | sol.ac (10%)    | CH3COOH         | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | x   |    |    | ✓  | ✓    | ○  |    | ○  | ○   | ○  | x  |    |
| Acetic Acid            | sol.ac (10-50%) | CH3COOH         | ✓     | ✓  | ○  | ✓  | ✓    | ○  | ○  | ○  |     |    |    | ✓  | ✓    | ○  |    | ○  | ○   | ○  | x  |    |
| Acetic Acid            | sol.ac (50-60%) | CH3COOH         | ✓     | ○  | ○  | ✓  | ✓    | ○  | ○  | x  |     |    |    | ○  | x    |    |    | ○  | x   |    |    |    |
| Acetic Acid            | glacial (100%)  | CH3COOH         | x     |    |    | ✓  | ○    | ○  |    | x  |     |    |    | x  |      |    |    | x  |     |    |    |    |
| Acetone                | sol.ac (10%)    | CH3COCH3        | x     |    |    | ✓  | ✓    | ✓  | ○  | ○  |     |    |    | ✓  | ✓    | ✓  | ○  | x  |     |    |    |    |
| Acetone                | tecn.p. (100%)  | CH3COCH3        | x     |    |    | ✓  | ✓    | ○  |    | ○  |     |    |    | ✓  | ○    |    |    | x  |     |    |    |    |
| Acetonitrile           |                 | CH3CN           | x     |    |    | ○  | x    |    |    | x  |     |    |    | ○  | x    |    |    | x  |     |    |    |    |
| Acrylonitrile          | tecn.p. (100%)  | CH2=CH-CN       | x     |    |    | x  |      |    |    | ✓  | ○   | x  |    | ✓  | ✓    | ○  | x  | ○  | x   |    |    |    |
| Acetophenone           | tecn.p. (nd%)   | CH3COC6H5       | x     |    |    | ○  | x    |    |    | x  |     |    |    | ✓  | ○    | x  |    | x  |     |    |    |    |
| Adipic acid            | sol.ac (sat%)   | HOOC(CH2)4COOH  | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ○  | x  |     |    |    | ✓  | ✓    | ✓  | ○  | ✓  | ✓   | ✓  | ✓  |    |
| Allyl Alcohol          | sol.ac (96%)    | CH2=CH-CH2OH    | ✓     |    |    | ✓  | ✓    | ○  |    | ✓  | ○   | x  |    |    |      |    |    | ✓  | ✓   | ✓  | ○  |    |
| Aluminium chloride     |                 | AlCl3           | ✓     | ✓  | ○  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Aluminium sulfate      | sol.ac (sat%)   | Al2(SO4)3       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ○  | ✓  | ✓   | ✓  | ✓  |    |
| Ammonia                | sol.ac (dil%)   | NH3             | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ○  | x  |     |    |    | ✓  | ✓    | ✓  | ✓  | ○  | ○   | x  |    |    |
| Ammonia                | sol.ac (sat%)   | NH3             | ✓     | ✓  | ○  | ✓  | ✓    | ✓  | ○  | x  |     |    |    | ✓  | ✓    | ✓  |    | ○  | ○   | x  |    |    |
| Ammonia gas            | tecn.p. (100%)  | NH3             | ✓     | ✓  | ✓  | ✓  | ✓    | ○  | ○  | x  |     |    |    | ✓  | ✓    | ✓  | ○  | x  |     |    |    |    |
| Ammonium Acetate       | sol.ac (100%)   | NH4CH3CO2       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ○  | ○  | ○   | ○  | x  | ✓  | ✓    | ✓  | ○  | ✓  | ✓   | ✓  | ○  |    |
| Ammonium Carbonate     | sol.ac (100%)   | (NH4)2CO3       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ○  | ✓  | ✓   | ✓  | ○  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Ammonium Chloride      | sol.ac (sat%)   | NH4Cl           | ✓     | ✓  | ○  | ✓  | ✓    | ✓  | ○  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Ammonium Nitrate       | sol.ac (sat%)   | NH4NO3          | ✓     | ✓  | ○  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Ammonium Phosphate     |                 | (NH4)3PO4       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  |    | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Ammonium Sulfate       | sol.ac (tutte%) | (NH4)2SO4       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Ammonium Sulfide       | sol.ac (tutte%) | (NH4)2S         | ✓     | ✓  | ○  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  |    | x  |     |    |    |    |
| Amyl Acetate           | tecn.p. (100%)  | CH3COO(CH2)4CH3 | x     |    |    | ○  | x    |    |    | x  |     |    |    | ○  | x    |    |    | ○  | ○   |    |    |    |
| Amyl Alcohol           |                 | CH3(CH2)3CH2OH  | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ○  | x  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ○  | ○  |    |
| Aniline                | sol.ac (sat%)   | C6H5NH          | ○     | x  |    | ○  | ○    | ○  | x  | x  |     |    |    | ✓  | ○    | x  |    | ✓  | ○   | ○  |    |    |
| Antimony Trichloride   | sol.ac (0-80%)  | SbCl3           | ✓     | ✓  | ○  | ✓  | ✓    | ○  | ○  | x  |     |    |    | ○  |      |    |    | ✓  | ✓   | ✓  | ○  |    |
| Aqua regia             |                 | 3HCl+HNO3       | ○     | ○  |    | ○  | ○    | x  |    | x  |     |    |    | x  |      |    |    | ○  |     |    |    |    |
| Arsenic Acid           | sol.ac (80%)    | H3ASO4          | ✓     | ○  | ○  | ✓  | ✓    | ○  | ○  | ○  |     |    |    | ✓  | ✓    | ○  | ○  | ✓  | ✓   | ✓  | ○  |    |
| Barium Carbonate       | sol.ac (tutte%) | BaCO3           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Barium Chloride        | sol.ac (tutte%) | BaCl2           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Barium Hydroxide       | sol.ac (sat%)   | Ba(OH)2         | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Barium Nitrate         | sol.ac (sat%)   | Ba(NO3)2        | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Barium Sulfate         | sol.ac (sat%)   | BaSO4           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Barium Sulfide         | sol.ac (sat%)   | BaS             | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  |    | ○  |     |    |    | ✓  | ✓    | ✓  |    | ✓  | ✓   | ✓  | ✓  |    |
| Beer                   |                 |                 | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  |    |
| Benzaldehyde           | sol.ac (sat%)   | C6H5CHO         | x     |    |    | ✓  |      |    |    | x  |     |    |    | ○  |      |    |    | ○  |     |    |    |    |
| Benzene                | tecn.p. (100%)  | C6H6            | ○     | x  |    | ○  | ○    |    |    | x  |     |    |    | x  |      |    |    | ✓  | ○   | ○  | ○  |    |
| Benzene-Sulphonic Acid | sol.ac (10%)    | C6H5SO3H        | ✓     | ✓  | ○  | ✓  | ✓    | ○  | x  | ○  | ○   |    |    | x  |      |    |    | ✓  | ✓   | ✓  | ○  |    |
| Benzoic Acid           | sol.ac (sat%)   | C6H5COOH        | ✓     | ✓  | ○  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    | ✓  | ○    | ○  |    | ✓  | ✓   | ✓  | ✓  |    |
| Benzyl Alcohol         | tecn.p. (100%)  | C6H5CH2OH       | ○     | x  |    | ✓  | ✓    | ✓  | x  | x  |     |    |    | ✓  | ○    | ○  |    | ✓  | ✓   | ✓  | x  |    |

| Chemicals                             | Conc.                | Formula                   | PVC-U |    |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |
|---------------------------------------|----------------------|---------------------------|-------|----|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|
|                                       |                      |                           | 20    | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Temperature (°C)                      |                      |                           | 20    | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| <b>Boric Acid</b>                     | sol.ac (sat%)        | H3BO3                     | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| <b>Brine</b>                          |                      |                           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✗  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Bromine water</b>                  |                      | Br2-H2O                   | ✓     | ○  |    |    | ⊗    | ✗  |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  |    |    |
| <b>Bromine</b>                        | tecn.p. (100%)       | Br2                       | ✗     |    |    |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  |    |
| <b>Butadiene</b>                      | gas (100%)           | CH2=CH-CH=CH2             | ✓     | ✓  | ✓  | ○  | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ✓  |    |
| <b>Butylene Glycol</b>                | tecn.p. (100%)       | CH2OH-CH=CH-CH2OH         | ✓     | ✓  | ○  |    | ✓    | ✓  | ○  |    | ○   |    |    |    | ✓    | ✓  | ○  |    | ✓   | ✓  | ○  |    |
| <b>Butane</b>                         |                      | CH3CH2CH2CH3              | ✓     | ✓  |    |    | ✓    | ✓  | ✓  | ✓  | ○   | ○  | ✗  |    | ✗    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| <b>Butyl Acetate</b>                  | tecn.p. (100%)       | CH3COO-CH2CH2CH2CH3       | ⊗     | ✗  |    |    | ⊗    | ✗  |    |    | ✗   |    |    |    | ○    | ⊗  | ✗  |    | ✗   |    |    |    |
| <b>Butyl Alcohol</b>                  | tecn.p. (100%)       | CH3(CH2)3OH               | ✓     | ✓  | ○  |    | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ○  | ✗  |    |
| <b>Butyric Acid</b>                   | tecn.p. (100%)       | CH3CH2CH2COOH             | ○     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ○    |    |    |    | ○   | ⊗  | ✗  |    |
| <b>Calcium Carbonate</b>              | sol.ac (tutte%)      | CaCO3                     | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| <b>Calcium Chloride</b>               | sol.ac (tutte%)      | CaCl2                     | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ○  | ✗  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Calcium Hydroxide</b>              | sol.ac (tutte%)      | Ca(OH)2                   | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Calcium Hypochlorite</b>           | sol.ac (sat%)        | Ca(ClO)2                  | ✓     | ✓  | ○  |    | ✓    | ✓  | ○  | ⊗  | ✓   | ✓  | ○  |    | ○    | ○  | ⊗  | ⊗  | ✓   | ✓  | ✓  | ○  |
| <b>Calcium Nitrate</b>                | sol.ac (50%)         | Ca(NO3)2                  | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Calcium Sulfate</b>                | sol.ac (sat%)        | CaSO4                     | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Carbon Dioxide</b>                 | gas (100%)           | CO2                       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Carbon Dioxide</b>                 | sol.ac (nd%)         | CO2+H2O                   | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Carbon Disulfide</b>               | tecn.p. (100%)       | CS2                       | ⊗     | ⊗  | ✗  | ✗  |      |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ○  | ⊗  | ✗  |
| <b>Carbon Tetrachloride</b>           | tecn.p. (100%)       | CCl4                      | ⊗     | ✗  |    |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ○   |    |    |    |
| <b>Carbonic Acid (carbon dioxide)</b> | sol.ac (sat%)        | H2CO3                     | ✓     | ✓  | ○  |    | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Chloric Acid</b>                   | sol.ac (0-10%)       | HClO3                     | ✓     | ✓  | ○  | ○  | ✗    |    |    |    | ✗   |    |    |    | ✓    | ✓  | ○  | ○  | ✓   | ○  | ○  | ✗  |
| <b>Chloric Acid</b>                   | sol.ac (>10-20%)     | HClO3                     | ✓     | ✓  | ○  | ○  | ✗    |    |    |    | ✗   |    |    |    | ✓    | ✓  | ○  | ✗  | ✓   | ○  | ○  | ✗  |
| <b>Chlorine gas (wet)</b>             |                      | Cl2                       | ✓     | ✓  | ○  |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ○  | ✗  |    |
| <b>Chlorine water</b>                 | sol.ac (sat%)        | Cl2                       | ✓     | ✓  | ○  | ⊗  | ✗    |    |    |    | ✗   |    |    |    | ○    | ⊗  |    |    | ⊗   | ✗  |    |    |
| <b>Chlorine Dioxide</b>               | sol.ac (<1ppm)       | ClO2                      | ✓     | ✓  | ○  | ○  |      |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  |    |
| <b>Chlorine Dioxide</b>               | tecn.p. (>1ppm-0.2%) | ClO2                      | ○     |    |    |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  |    |
| <b>Chlorine Dioxide</b>               | tecn.p. (>2%)        | ClO2                      | ○     |    |    |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  |    |
| <b>Chloroacetic Acid</b>              | sol.ac (50%)         | ClCH2COOH                 | ✓     | ○  | ○  |    | ✓    | ✓  | ✓  | ○  | ✗   |    |    |    | ✓    | ✓  | ○  | ✗  | ✗   |    |    |    |
| <b>Chloroacetic Acid</b>              | sol.ac (100%)        | ClCH2COOH                 | ○     | ○  | ✗  |    | ✓    | ✓  | ○  | ✗  | ✗   |    |    |    | ○    | ○  | ✗  |    | ✗   |    |    |    |
| <b>Chlorobenzene</b>                  | tecn.p. (100%)       | C6H5Cl                    | ✗     |    |    |    | ○    | ✗  |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  | ✗  |
| <b>Chlorosulphonic Acid</b>           | tecn.p. (100%)       | HClSO3                    | ○     | ✗  |    |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✗   |    |    |    |
| <b>Chromic Acid</b>                   | sol.ac (<10%)        | CrO3+H2O                  | ○     | ○  | ✗  | ✗  |      |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ✓  | ○  |
| <b>Chromic Acid</b>                   | sol.ac (10-30%)      | CrO3+H2O                  | ○     | ○  | ✗  | ✗  |      |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ✓  | ○  |
| <b>Chromic Acid</b>                   | sol.ac (>30%)        | CrO3+H2O                  | ○     | ✗  |    |    | ✗    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  | ○  |
| <b>Citric acid</b>                    | sol.ac               | COOH-CH2C(COOH)OH-CH2COOH | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| <b>Copper Chloride</b>                | sol.ac (sat%)        | CuCl2                     | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Copper Fluoride</b>                | sol.ac (tutte%)      | CuF2                      | ✓     | ✓  | ○  |    | ✓    | ✓  | ○  |    | ○   |    |    |    | ✓    | ✓  |    |    | ✓   | ✓  |    |    |
| <b>Copper Nitrate</b>                 | sol.ac (nd%)         | Cu(NO3)2                  | ✓     | ✓  | ○  |    | ✓    | ✓  | ✓  | ○  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  |
| <b>Copper Sulphate</b>                | sol.ac (sat%)        | CuSO4                     | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  |
| <b>Cresol</b>                         | sol.ac (>90%)        | CH3C6H4OH                 | ⊗     |    |    |    | ✓    | ○  |    |    | ○   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  |    |

| Chemicals                    | Conc.           | Formula                  | PVC-U |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |   |   |   |
|------------------------------|-----------------|--------------------------|-------|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|---|---|---|
|                              |                 |                          | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |   |   |   |
| <b>Temperature (°C)</b>      |                 |                          |       |    |    |      |    |    |    |     |    |    |    |      |    |    |    |     |    |    |    |   |   |   |
| <b>Crotonaldehyde</b>        | tecn.p. (100%)  | CH3-CH=CH-CHO            | x     |    |    | ✓    |    |    |    | x   |    |    |    | ○    |    |    |    | ✓   |    |    |    |   |   |   |
| <b>Cyclohexane</b>           | tecn.p. (100%)  | C6H12                    | x     |    |    | ⊗    | x  |    |    | x   |    |    |    | x    |    |    |    | ✓   | ✓  |    |    |   |   |   |
| <b>Cyclohexanol</b>          | tecn.p. (100%)  | C6H11OH                  | x     |    |    | ✓    | ○  | ⊗  | x  | x   |    |    |    | ○    |    |    |    | ✓   | ✓  |    |    |   |   |   |
| <b>Cyclohexanone</b>         | tecn.p. (100%)  | C6H10O                   | x     |    |    | ○    | ⊗  | x  |    | x   |    |    |    | ⊗    |    |    |    | x   |    |    |    |   |   |   |
| <b>Dextrin</b>               | sol.ac          |                          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Dextrose</b>              | sol.ac (tutte%) | C6H12O6                  | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Dibutyl Ether</b>         | tecn.p. (100%)  | [CH3(CH2)3]2O            | x     |    |    | ⊗    |    |    |    | x   |    |    |    | x    |    |    |    | x   |    |    |    |   |   |   |
| <b>Dibutyl Phthalate</b>     | tecn.p. (100%)  | C6H4(COOC4H9)2           | x     |    |    | ✓    | ○  | x  |    | x   |    |    |    | ○    | ○  | ○  | x  | ○   | ○  | x  |    |   |   |   |
| <b>Dichloroacetic Acid</b>   | sol.ac (<50%)   | Cl2CHCOOH                | ✓     | ✓  | ○  | ✓    | ✓  | ○  | x  | x   |    |    |    | ○    | ○  | x  |    | ○   | ○  | x  |    |   |   |   |
| <b>Dichloroacetic Acid</b>   | tecn.p. (100%)  | Cl2CHCOOH                | ✓     | ○  | x  | ○    | x  |    |    | x   |    |    |    | x    |    |    |    | ○   | x  |    |    |   |   |   |
| <b>Dichlorobenzene</b>       | tecn.p. (100%)  | C6H4Cl2                  | x     |    |    | x    |    |    |    | x   |    |    |    | x    |    |    |    | ○   |    |    |    |   |   |   |
| <b>Dichloroethylene</b>      | tecn.p. (100%)  | CHCl=CHCl                | x     |    |    | x    |    |    |    | x   |    |    |    | x    |    |    |    | ○   |    |    |    |   |   |   |
| <b>Oil for diesel motor</b>  |                 |                          | ○     | ○  | x  | ○    | x  |    |    | x   |    |    |    | x    |    |    |    | ✓   | ✓  | ○  | x  |   |   |   |
| <b>Diethylamine</b>          | tecn.p. (100%)  | (C2H5)2NH                | x     |    |    | ✓    | ○  |    |    | x   |    |    |    | ✓    | ○  |    |    | x   |    |    |    |   |   |   |
| <b>Diethyl Ether</b>         | tecn.p. (100%)  | C2H5OC2H5                | x     |    |    | ⊗    | x  |    |    | x   |    |    |    | ⊗    |    |    |    | ⊗   |    |    |    |   |   |   |
| <b>Diglycolic Acid</b>       | sol.ac (sat%)   | HOOC-CH2-OCH2-CO-OH      | ✓     | ✓  | ○  | ✓    | ✓  | ✓  |    |     |    |    |    | ✓    |    |    |    | ✓   |    |    |    |   |   |   |
| <b>Dimethylamine</b>         | tecn.p. (100%)  | (CH3)2NH                 | x     |    |    | ✓    | ○  | x  |    | x   |    |    |    | ⊗    |    |    |    | x   |    |    |    |   |   |   |
| <b>Diisobutyl Ketone</b>     | tecn.p. (100%)  | (CH3)2CHCH2CO-CH2CH(CH3) | x     |    |    | ✓    | ○  | x  |    | x   |    |    |    | ✓    | ✓  | ○  | x  | x   |    |    |    |   |   |   |
| <b>Dimethylformamide</b>     | tecn.p. (100%)  | HCON(CH3)2               | x     |    |    | ✓    | ✓  | ○  |    | x   |    |    |    | ✓    |    |    |    | ✓   |    |    |    |   |   |   |
| <b>Dioxane</b>               | tecn.p (100%)   | (CH2)4O2                 | x     |    |    | ○    | ⊗  |    |    | x   |    |    |    | x    |    |    |    | x   |    |    |    |   |   |   |
| <b>Ethyl Acetate</b>         | tecn.p. (100%)  | CH3COOCH2CH3             | x     |    |    | ○    | ○  | ⊗  |    | x   |    |    |    | ○    |    |    |    | x   |    |    |    |   |   |   |
| <b>Ethyl Acrylate</b>        | tecn.p. (100%)  | CH2=CHCOOCH2CH3          | x     |    |    |      |    |    |    |     |    |    |    | ○    |    |    |    | x   |    |    |    |   |   |   |
| <b>Ethyl Alcohol</b>         | sol.ac (96%)    | CH3CH2OH                 | ✓     | ✓  | ○  | ✓    | ✓  | ○  | ○  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ethyl Benzene</b>         | tecn.p. (100%)  | C6H5C2H5                 | x     |    |    | ○    | x  |    |    | x   |    |    |    | x    |    |    |    | ✓   |    |    |    |   |   |   |
| <b>Ethyl Chloride</b>        | tecn.p. (100%)  | CH3CH2Cl                 | x     |    |    | x    |    |    |    | x   |    |    |    | ✓    | ✓  |    |    | ✓   | ✓  | ✓  | ✓  | ○ |   |   |
| <b>Ethylenediamine</b>       | tecn.p. (100%)  | NH2CH2CH2NH2             | x     |    |    | ○    |    |    |    | x   |    |    |    | ✓    |    |    |    | x   |    |    |    |   |   |   |
| <b>Ethylene Glycol</b>       | tecn.p. (<50%)  | HOCH2-CH2OH              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   | ○  | ⊗  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ○ |
| <b>Ethylene Glycol</b>       | tecn.p. (100%)  | HOCH2-CH2OH              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ○ |
| <b>Ferric Chloride</b>       | sol.ac (sat%)   | FeCl3                    | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferrous Chloride</b>      | sol.ac (sat%)   | FeCl2                    | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferric Hydroxide</b>      | tecn.p. (sat%)  | Fe(OH)3                  | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferrous Hydroxide</b>     | tecn.p. (sat%)  | Fe(OH)2                  | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferric Nitrate</b>        |                 | Fe(NO3)3                 | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  | x  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferrous Nitrate</b>       |                 | Fe(NO3)2                 | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  | x  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferrous Sulfate</b>       | sol.ac (sat%)   | FeSO4                    | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Ferric Sulfate</b>        | sol.ac (sat%)   | Fe(SO4)3                 | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Fluoroboric Acid</b>      | tecn.p. (100%)  | HBF4                     | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |
| <b>Fluorosilicic Acid</b>    | sol.ac (32%)    | H2SiF6                   | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  | ○ |   |   |
| <b>Formamide</b>             | tecn.p. (100%)  | HCONH2                   | x     |    |    | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ✓    | ○  | ○  | x  | ○   | x  |    |    |   |   |   |
| <b>Formic Acid</b>           | sol.ac (25-50%) | HCOOH                    | ✓     | ○  | ○  | ✓    | ○  | ○  | x  | x   |    |    |    | ✓    | ✓  | ✓  | ○  | ○   | x  |    |    |   |   |   |
| <b>Formic Acid</b>           | sol.ac (60-85%) | HCOOH                    | ✓     | ○  |    | ✓    | ○  | ○  | x  | x   |    |    |    | ✓    | ✓  | ✓  | x  | x   |    |    |    |   |   |   |
| <b>Formic Acid</b>           | sol.ac (>85%)   | HCOOH                    | ✓     | ○  |    | ✓    | ○  | ○  | x  | x   |    |    |    | ✓    | ✓  | ✓  | x  | x   |    |    |    |   |   |   |
| <b>Fuel oil</b>              |                 |                          | x     |    |    | ○    | x  |    |    | x   |    |    |    | x    |    |    |    | ✓   | ✓  | ○  | x  |   |   |   |
| <b>Polpe and fruit juice</b> |                 |                          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓ | ✓ | ✓ |

| Chemicals                 | Conc.           | Formula            | PVC-U |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |
|---------------------------|-----------------|--------------------|-------|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|
|                           |                 |                    | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Temperature (°C)          |                 |                    | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Furfuryl Alcohol          | tecn.p. (100%)  | C5H6O2             | x     |    |    | ✓    | ✓  | ○  | x  | x   |    |    |    | ⊗    |    |    |    | x   |    |    |    |
| Gasoline                  |                 |                    | ○     | ○  |    | ⊗    | x  |    |    | x   |    |    |    | ○    |    |    |    | x   |    |    |    |
| Glucose                   | sol.ac (tutte%) | C6H12O6            | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ○   | x  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Glycerol, Glycerin        |                 | HOCH2-CH(OH)-CH2OH | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ○  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Heptane                   |                 | C7H16              | ✓     | ✓  | ○  | ✓    | ○  | ⊗  |    | ○   |    |    |    | x    |    |    |    | ✓   | ✓  | ✓  | ○  |
| Hexane                    |                 | C7H16              | ✓     | ○  |    | ✓    | ○  | ⊗  |    | ○   |    |    |    | x    |    |    |    | ✓   |    |    |    |
| Hydrazine                 | sol.ac          | H2N-NH2xH2O        | ✓     | ○  | x  | ✓    | ○  | x  |    | x   |    |    |    | ✓    | ○  | ○  | x  | x   |    |    |    |
| Hydrobromic Acid          | sol.ac (<47%)   | HBr                | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ○  |    | ✓    | ✓  |    |    | ✓   | ✓  |    |    |
| Hydrochloric Acid         | sol.ac (<10%)   | HCl                | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  | ○   | ○  | ○  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Hydrochloric Acid         | sol.ac (10-25%) | HCl                | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ○   | ○  | x  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Hydrochloric Acid         | sol.ac (25-30%) | HCl                | ✓     | ✓  | ○  | ✓    | ✓  | ○  | ○  | x   |    |    |    | ✓    | ✓  | ○  |    | ✓   | ○  |    |    |
| Hydrochloric Acid         | sol.ac (30-37%) | HCl                | ✓     | ✓  | ○  | ✓    | ✓  | ○  | ○  | x   |    |    |    | ✓    | ○  |    |    | ○   | x  | x  |    |
| Hydrochloric Acid         | sol.ac (>37%)   | HCl                | ✓     | ✓  | ○  | ✓    | ✓  | ○  |    | x   |    |    |    | x    |    |    |    | ○   | x  | x  |    |
| Hydrofluoric Acid         | sol.ac (<10%)   | HF                 | ✓     | ✓  | ⊗  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Hydrofluoric Acid         | sol.ac (30%)    | HF                 | ✓     | ○  | ⊗  | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ○  |
| Hydrofluoric Acid         | sol.ac (40%)    | HF                 | ○     | ⊗  | x  | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ✓    | ✓  | ✓  | ⊗  | ✓   | ✓  | ○  | ⊗  |
| Hydrofluoric Acid         | sol.ac (55%)    | HF                 | ○     | ⊗  | x  | ✓    | ✓  | ○  | ○  | x   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ○  | ⊗  | x  |
| Hydrogen                  |                 | H2                 | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | x  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Hydrogen Peroxide         | sol.ac (20%)    | H2O2               | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ✓    | ○  | ○  | ⊗  | ✓   | ✓  | ✓  | ✓  |
| Hydrogen Peroxide         | sol.ac (35%)    | H2O2               | ✓     | ○  | ⊗  | ✓    | ○  | ○  | ⊗  | x   |    |    |    | ○    | ⊗  | x  |    | ✓   | ✓  | ⊗  |    |
| Hydrogen Peroxide         | sol.ac (50%)    | H2O2               | ○     | ⊗  |    | ⊗    | x  |    |    | x   |    |    |    | x    |    |    |    | ⊗   | x  |    |    |
| Isopropyl Alcohol         | tecn.p. (100%)  | (CH3)2CHOH         | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ○   |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ✓  |
| Isopropyl Ether           | tecn.p. (100%)  | (CH3)2CHOCH(CH3)2  | x     | x  | x  | ○    | x  | x  |    | x   |    |    |    | ⊗    |    |    |    | ⊗   |    |    |    |
| Lactic acid               |                 |                    | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Linseed oil               | sol.ac          | CH3CHOHCOOH        | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  | ○   |    |    |    | ○    |    |    |    | ✓   | ✓  |    |    |
| Magnesium Carbonate       | sol.ac (tutte%) | MgCO3              | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Magnesium Chlorite        | sol.ac (tutte%) | MgCO3              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Magnesium Hydroxide       | sol.ac (tutte%) | Mg(OH)2            | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Magnesium Nitrate         | sol.ac (nd%)    | Mg(NO3)2           | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Magnesium Sulfate         |                 | MgSO4              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Maleic Acid               | sol.ac (sat%)   | HOOC-CH=CH-COOH    | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ○  | ○  |    | ✓   | ✓  | ○  | ○  |
| Mercuric Chloride         | sol.ac (sat%)   | HgCl2              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| Mercuric Cyanide          | sol.ac (tutte%) | Hg(CN)2            | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  |    | ✓   |    |    |    |
| Mercuric Nitrate          | sol.ac (sat%)   | Hg(NO3)2           | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ✓  |
| Mercuric Sulphate         | sol.ac (sat%)   | HgSO4              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Mercurous Nitrate         | sol.ac (sat%)   | HgNO3              | ✓     | ✓  | ✓  | ✓    | ✓  |    |    | ○   |    |    |    | ✓    |    |    |    | ✓   |    |    |    |
| Mercury                   | tecn.p. (100%)  | Hg                 | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Methane                   |                 | CH4                | ✓     | ✓  | ○  | ✓    | ✓  | ○  |    | ○   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| Methyl Acetate            | tecn.p. (100%)  | CH3COOCH3          | x     |    |    | ○    |    |    |    | x   |    |    |    | ○    | x  |    |    | x   |    |    |    |
| Methyl Alcohol (Methanol) | tecn.p. (100%)  | CH3OH              | ✓     | ○  | ○  | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ✓    | ✓  | ✓  |    | ○   | ○  | ⊗  |    |
| Methyl Ethyl Ketone       |                 | CH3COCH2CH3        | x     |    |    | ✓    | ⊗  | x  |    | x   |    |    |    | ○    | ⊗  |    |    | x   |    |    |    |
| Methyl Isobutyl Ketone    |                 | CH3COCH2CH(CH3)2   | x     |    |    | ✓    | ○  |    |    | x   |    |    |    | ✓    | ○  |    |    | x   |    |    |    |



| Chemicals                     | Conc.           | Formula        | PVC-U |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |
|-------------------------------|-----------------|----------------|-------|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|
|                               |                 |                | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Temperature (°C)              |                 |                | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Methyl methacrylate           |                 | C5H8O2         | x     |    |    | ✓    | ✓  | ○  |    | x   |    |    |    | x    |    |    |    | x   |    |    |    |
| Milk                          |                 |                | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| Naphtalene                    | tecn.p. (100%)  | C10H8          | x     |    |    | ○    |    |    |    | x   |    |    |    | x    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| Natural gas                   |                 |                | ✓     | ✓  | ○  | ✓    | ○  |    |    |     |    |    |    | ✓    |    |    |    | ✓   |    |    |    |
| Nickel Acetate                |                 | (CH3COO)2Ni    | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  | ✓    |    |    |    | ⊗   |    |    |    |
| Nickel Chloride               | sol.ac (tutte%) | NiCl2          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Nickel Nitrate                | sol.ac (sat%)   | Ni(NO3)2       | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Nickel Sulfate                | sol.ac (sat%)   | NiSO4          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Nitric Acid                   | sol.ac (30%)    | HNO3           | ✓     | ✓  | ○  | ✓    | ✓  | ○  | ○  | x   |    |    |    | ○    | ○  | x  |    | ✓   | ✓  | ⊗  | x  |
| Nitric Acid                   | sol.ac (70%)    | HNO3           | ✓     | ○  | ⊗  | ⊗    | x  |    |    | x   |    |    |    | ○    |    |    |    | ⊗   | x  |    |    |
| Nitrobenzene                  |                 | C6H5NO2        | x     |    |    | ✓    | ○  | ⊗  |    | x   |    |    |    | ○    |    |    |    | ○   |    |    |    |
| Nitrotoluene                  | tecn.p. (100%)  | CH3C6H4NO2     | x     |    |    | ○    |    |    |    | x   |    |    |    | x    |    |    |    | ○   |    |    |    |
| Nitrous Acid                  | sol.ac (10%)    | HNO2           | ✓     | ✓  | ○  | ✓    | ○  |    |    | x   |    |    |    | ✓    | ○  |    |    | ✓   | ✓  | ○  |    |
| Oleic Acid                    | tecn.p. (100%)  | C17H33COOH     | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | x    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| Olive oil                     |                 |                | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ○    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| Ozone                         | sol.ac          | O3             | ✓     | ○  |    | x    |    |    |    | x   |    |    |    | x    |    |    |    | ✓   | ○  |    |    |
| Palmitic Acid                 |                 | CH3(CH2)14COOH | ✓     |    |    | ✓    | ✓  | ✓  | ○  | x   |    |    |    | ○    |    |    |    | ✓   |    |    |    |
| Emulsion of parafin           | emu.ac          |                | ○     |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ○  |    | x    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| Paraffin oil                  | emu.ac          |                | ✓     | ✓  |    | ✓    | ✓  |    |    | ✓   | ✓  | ○  |    | x    |    |    |    | ✓   | ✓  | ✓  |    |
| Petroleum                     | tecn.p. (100%)  |                | ○     |    |    | ○    |    |    |    | x   |    |    |    | x    |    |    |    | ✓   |    |    |    |
| Phenol                        | sol.ac (<10%)   | C6H5OH         | ✓     | ○  |    | ✓    | ✓  | ○  | x  | x   |    |    |    | ✓    |    |    |    | ✓   |    |    |    |
| Phenylhydrazine               | tecn.p. (100%)  | C6H5NHNH2      | x     |    |    | ⊗    |    |    |    |     |    |    |    | ○    |    |    |    | x   |    |    |    |
| Phenylhydrazine hydrochloride | sol.ac (sat%)   | C6H5NHNH2HCl   | x     |    |    | ✓    |    |    |    |     |    |    |    | ✓    | ✓  |    |    | ✓   | ✓  |    |    |
| Phosgene gas                  | tecn.p. (100%)  | COCl2          | x     |    |    | x    |    |    |    | x   |    |    |    |      |    |    |    | x   |    |    |    |
| Phosphoric Acid               | sol.ac (10%)    | H3PO4          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ✓   | ○  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Phosphoric Acid               | sol.ac (50%)    | H3PO4          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ⊗  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Phosphoric Acid               | sol.ac (85%)    | H3PO4          | ✓     | ✓  | ○  | ✓    | ✓  | ○  |    | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Phthalic Acid                 | sol.ac (sat%)   | C6H4(COOH)2    | ✓     |    |    | ✓    |    |    |    | x   |    |    |    | ✓    |    |    |    | ✓   |    |    |    |
| Picric Acid                   | sol.ac (1%)     | C6H2(OH)(NO2)3 | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ○  |
| Potassium Dichromate          | sol.ac (sat%)   | K2Cr2O7        | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Potassium Chromate            | sol.ac (sat%)   | K2CrO4         | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Potassium Cyanide             | sol.ac (sat%)   | KCN            | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ○   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Potassium Iodide              | sol.ac (sat%)   | KI             | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Potassium Nitrate             | sol.ac (sat%)   | KNO3           | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Potassium Sulfate             | sol.ac (sat%)   | K2SO4          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| Propane liquid                |                 | CH3CH2CH3      | ✓     |    |    | ✓    |    |    |    | ✓   |    |    |    | x    |    |    |    | ✓   |    |    |    |
| Propane gas                   |                 | CH3CH2CH3      | ✓     | ○  |    | ✓    | ○  |    |    | ○   | ○  |    |    | ○    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| Propionic Acid                | sol.ac (50%)    | CH3CH2COOH     | ✓     | ○  |    | ✓    | ○  |    |    | x   |    |    |    | ✓    | ✓  | ✓  | ○  | x   |    |    |    |
| Propyl Alcohol                | sol.ac (97%)    | C3H7OH         | ✓     | ✓  | ○  | ✓    | ✓  | ✓  | ○  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Pyridine                      | tecn.p. (100%)  | C5H5N          | x     |    |    | ✓    | ✓  | ○  |    | x   |    |    |    | ○    | ⊗  | x  |    | x   |    |    |    |
| Silicon oil                   |                 |                | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ○  |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ✓  |
| Silver Cyanide                | sol.ac (tutte%) | AgCN           | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ○  |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| Silver Nitrate                | sol.ac (sat%)   | AgNO3          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |

| Chemicals                 | Conc.           | Formula         | PVC-U |    |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |
|---------------------------|-----------------|-----------------|-------|----|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|
|                           |                 |                 | 20    | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Temperature (°C)          |                 |                 | 20    | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Sodium Acetate            | sol.ac (sat%)   | CH3COONa        | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   |    |    |    |
| Sodium Benzoate           |                 | C6H5COONa       | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ○  |    |
| Sodium Hydrogen Carbonate | sol.ac (10%)    | NaHCO3          | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Hydrogen Sulfate   | sol.ac (10%)    | NaHSO4          | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Bromate            | sol.ac (tutte%) | NaBrO3          | ✓     | ○  |    |    | ✓    | ○  |    |    | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| Sodium Bromide            | sol.ac (sat%)   | NaBr            | ✓     | ✓  | ✓  |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Carbonate          | sol.ac (sat%)   | Na2CO3          | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ○   | ○  | ○  | ✗  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Chloride           | sol.ac (dil%)   | NaCl            | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✗  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Chloride           | sol.ac (sat%)   | NaCl            | ✓     | ✓  | ✓  |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Chlorite           | sol.ac (25%)    | NaClO2          | ✗     |    |    |    | ✗    |    |    |    |     |    |    |    | ○    |    |    |    | ○   |    |    |    |
| Sodium Hydrogen Sulfite   | sol.ac (100%)   | NaHSO3          | ✓     | ✓  | ✗  |    | ✓    | ✓  | ✓  |    | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Fluoride           | sol.ac (sat%)   | NaF             | ✓     | ✓  | ✓  |    | ✓    | ✓  | ✓  |    |     |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| Sodium hydroxide          | sol.ac (5%)     | NaOH            | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ○   | ○  | ✗  |    |
| Sodium hydroxide          | sol.ac (15%)    | NaOH            | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ○   | ○  | ✗  |    |
| Sodium hydroxide          | sol.ac (30%)    | NaOH            | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ○   | ✗  |    |    |
| Sodium hydroxide          | sol.ac (50%)    | NaOH            | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    |
| Sodium hypochlorite       | sol.ac (3%)     | NaClO           | ✓     | ✓  | ○  |    | ○    | ○  | ○  |    | ✗   |    |    |    | ○    | ○  | ○  |    | ✓   | ✓  | ○  |    |
| Sodium hypochlorite       | sol.ac (5%)     | NaClO           | ✓     | ✓  | ○  |    | ○    | ○  | ○  |    | ✗   |    |    |    | ○    | ○  | ○  |    | ✓   | ✓  | ○  | ○  |
| Sodium hypochlorite       | sol.ac (7%)     | NaClO           | ✓     | ✓  | ○  |    | ○    | ○  | ○  |    | ✗   |    |    |    | ○    | ○  | ○  |    | ✓   | ✓  | ○  | ○  |
| Sodium hypochlorite       | sol.ac (10%)    | NaClO           | ✓     | ✓  | ○  |    | ○    | ○  | ○  |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  | ○  |
| Sodium hypochlorite       | sol.ac (13%)    | NaClO           | ✓     | ✓  | ○  |    | ○    | ○  | ○  |    | ✗   |    |    |    | ✗    |    |    |    | ✓   | ✓  | ○  | ○  |
| Sodium Persulfate         | sol.ac (sat%)   | Na2S2O8         | ✓     | ○  | ✗  |    | ○    | ✗  |    |    |     |    |    |    | ✓    | ✓  | ○  | ✗  | ✓   | ○  | ○  | ✗  |
| Sodium Nitrate            | sol.ac (sat%)   | NaNO3           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Nitrite            | sol.ac (sat%)   | NaNO2           | ✓     | ✓  | ○  |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Phosphate          | sol.ac (sat%)   | Na3PO4          | ✓     | ✓  | ○  |    | ✓    | ✓  | ✓  |    | ✓   | ✗  |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| Sodium Sulfate            | sol.ac (sat%)   | Na2SO4          | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ✗  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Sulfide            | sol.ac (sat%)   | Na2S            | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ○  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sodium Sulfite            | sol.ac (sat%)   | Na2SO3          | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ✓  |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ○  |
| Sodium Thiosulfate        | sol.ac (sat%)   | Na2S2O3         | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| Stearic Acid              | tecn.p. (100%)  | C17H35COOH      | ✓     | ✓  | ○  |    | ✓    | ○  | ○  |    | ✓   | ✓  |    |    | ○    |    |    |    | ✓   | ✓  | ○  | ○  |
| Sulfur Dioxide dry        | tecn.p. (100%)  | SO2             | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✗   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  |    |    |
| Sulfur Dioxide liquid     | tecn.p. (100%)  | SO2             | ✓     | ✓  | ○  |    | ✓    | ✓  | ✓  | ○  | ✗   |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  | ✓  |
| Sulfuric Acid             | sol.ac (10%)    | H2SO4           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Sulfuric Acid             | sol.ac (50%)    | H2SO4           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ✓  |
| Sulfuric Acid             | sol.ac (70%)    | H2SO4           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ✗   |    |    |    | ✓    | ✓  | ○  | ○  | ✓   | ✓  | ✓  | ✓  |
| Sulfuric Acid             | sol.ac (80%)    | H2SO4           | ✓     | ✓  | ○  |    | ✓    | ✓  | ○  | ○  | ✗   |    |    |    | ✓    | ✓  | ✓  | ○  | ✓   | ✓  | ✓  | ○  |
| Sulfuric Acid             | sol.ac (98%)    | H2SO4           | ○     | ○  | ✗  | ✗  |      |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✗   |    |    |    |
| Sulfurous Acid            | sol.ac (sat%)   | H2SO3           | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ○  | ○  | ✓   | ✓  | ✓  | ○  |
| Tannic Acid               | sol.ac (tutte%) | C14H10O9        | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✗   |    |    |    | ✓    |    |    |    | ○   |    |    |    |
| Tartaric Acid             | sol.ac (<10%)   | COOH(CHOH)2COOH | ✓     | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ○  | ✗   |    |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ○  |    |
| Tetrachloroethane         |                 | CHCl2CHCl2      | ✗     |    |    |    | ○    |    |    |    | ✗   |    |    |    | ✗    |    |    |    | ✓   |    |    |    |
| Tetrachloroethylene       |                 | Cl2C=CCl2       | ○     | ○  | ✗  |    | ○    | ✗  |    |    |     |    |    |    | ○    | ✗  |    |    | ✓   | ✓  | ○  |    |



| Chemicals                   | Conc.           | Formula      | PVC-U |    |    | PP-H |    |    |    | ABS |    |    |    | EPDM |    |    |    | FKM |    |    |    |
|-----------------------------|-----------------|--------------|-------|----|----|------|----|----|----|-----|----|----|----|------|----|----|----|-----|----|----|----|
|                             |                 |              | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| Temperature (°C)            |                 |              | 20    | 40 | 60 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 | 20   | 40 | 60 | 80 | 20  | 40 | 60 | 80 |
| <b>Tetrahydrofurane</b>     |                 | C4H8O        | x     |    |    | ○    | ⊙  | x  |    | x   |    |    |    | ○    |    |    |    | x   |    |    |    |
| <b>Toluene</b>              | tecn.p. (100%)  | C6H5CH3      | x     |    |    | ✓    | ⊙  | x  |    | x   |    |    |    | x    |    |    |    | ✓   |    |    |    |
| <b>Tributyl Phosphate</b>   | tecn.p. (100%)  | (C4H9)3PO4   | x     |    |    | ✓    | ○  | ⊙  |    | x   |    |    |    | ○    |    |    |    | x   |    |    |    |
| <b>Trichloroacetic Acid</b> | sol.ac          | CCl3COOH     | ⊙     |    |    | ✓    | ✓  | ○  |    | x   |    |    |    | x    |    |    |    | x   |    |    |    |
| <b>Trichloroethylen</b>     | tecn.p. (100%)  | CICH=CCl2    | x     |    |    | ○    | ⊙  | x  |    | x   |    |    |    | ✓    | ✓  | ✓  | ✓  | x   |    |    |    |
| <b>Triethanolamine</b>      | tecn.p. (100%)  | N(CH2CH2OH)3 |       |    |    |      |    |    |    |     |    |    |    | ○    |    |    |    | x   |    |    |    |
| <b>Turpentine</b>           | tecn.p. (100%)  |              | ✓     | ✓  | ✓  | ○    | ⊙  | x  |    |     |    |    |    | ○    |    |    |    | ✓   | ✓  | ✓  | ✓  |
| <b>Urea</b>                 | sol.ac          | NH2CONH2     | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| <b>Urine</b>                |                 |              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| <b>Wine vinegar</b>         | tecn.p. (comm%) |              | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  |     |    |    |    | ✓    | ✓  | ✓  |    | ✓   | ✓  | ✓  |    |
| <b>Potable water</b>        |                 | H2O          | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Xylene</b>               |                 | C6H4(CH3)2   | x     |    |    | x    |    |    |    | x   |    |    |    | x    |    |    |    | ○   |    |    |    |
| <b>Zinc Chloride</b>        | sol.ac (dil%)   | ZnCl2        | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Zinc Chloride</b>        | sol.ac (sat%)   | ZnCl2        | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Zinc Nitrate</b>         | sol.ac (nd%)    | Zn(NO3)2     | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Zinc Sulfate</b>         | sol.ac (dil%)   | ZnSO4        | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| <b>Zinc Sulfate</b>         | sol.ac (sat%)   | ZnSO4        | ✓     | ✓  | ✓  | ✓    | ✓  | ✓  |    | ✓   | ○  |    |    | ✓    | ✓  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |

All descriptions and illustrations in this publication are intended for guidance only and shall not constitute a 'sale by description'. All dimensions given are nominal, while changes can be done on the information, products and specifications from time to time for a variety of reasons, without prior notice. The information in this publication is provided 'as is' on the revision date stated on the sheet. Updates will not be issued automatically. This information is not intended to have any legal effect, whether by way of advice, representation or warranty (express or implied). We accept no liability whatsoever (to the extent permitted by law) if you place any reliance on this publication you must do so at your own risk. All rights reserved. Copyright in this publication belongs to Polypipe Italia and all such copyright may not be used, sold, copied or reproduced in whole or part in any manner in any media to any person without prior consent. **EFFAST** is a registered trademark."