

1 COMPATIBILITY WITH CHEMICAL AGENTS

The data of this list is based on information of the supplier of the PP- and PE material. Examination of the media to be transported is a matter for the plant operator. Here, it is merely a question of a recommendation. We can not guaranty for correctness.

| Abbreviation | Meaning | Abbreviation | Meaning | Abbreviation | Meaning |
|--------------|------------------|--------------|----------------------|--------------|---------|
| tp | technically pure | co sat | cold saturated | wat | watery |
| gas | gaseous | nc | normal concentration | li | liquid |
| all | sämtlich | gl ac | glacial acetic | | |

+ = Resistant / 0 = Partially Resistant / - = NOT Resistant

| CHEMICAL AGENTS | concentration | Temp. [°C] | PP | PE | CHEMICAL AGENTS | concentration | Temp. [°C] | PP | PE |
|----------------------|--------------------|------------|----|----|---------------------|-----------------------|------------|----|----|
| Ammonium acetate | all wat | 20 | + | + | Sulphur dioxide | | 20 | - | - |
| | | 40 | + | + | Anilin | tp | 20 | 0 | 0 |
| | | 60 | + | + | Anti-freeze, liquid | tp | 20 | + | + |
| Butyl acetate | tp | 20 | + | 0 | Potassium bromate | sat wat | 20 | + | + |
| Ethyl acetate | tp | 20 | + | + | Borax | all wat | 20 | + | + |
| | | 40 | 0 | 0 | | | | | |
| Vinyl acetate | tp | 20 | | + | Bromine, liquid | tp | 20 | - | - |
| (Wine) vinegar | nc | 20 | + | + | Butadiene | tp | 20 | + | + |
| Acetone | tp | 20 | + | + | Butane, gaseous | tp | 20 | + | + |
| Acetic acid | tp gl ac | 20 | + | + | Cyclohexane | tp | 20 | + | + |
| | | 40 | + | + | Chlorine | tp | 20 | - | - |
| | | 60 | 0 | 0 | Chloroform | 97% moisture, gaseous | 20 | - | 0 |
| Boric acid glyceride | all wat | 20 | + | + | Ethylene chloride | tp | 20 | 0 | 0 |
| | | 40 | + | + | Chloromethane | tp | 20 | 0 | - |
| Hydrobromic acid | 50% wat | 20 | + | + | Vinyl chloride | tp | 20 | | |
| Citric acid | 10% wat | 20 | + | + | Dichlorotoluene | tp | 20 | - | 0 |
| | | 40 | + | + | Dimethylamine | tp | 20 | + | + |
| | | 60 | + | + | 1,4-Dioxan | tp | 20 | + | 0 |
| Chloric acid | 10% wat 20% wat | 20 | + | - | Diocylphthalate | tp | 20 | 0 | + |
| | | 20 | 0 | - | Ethane | tp | 20 | + | + |
| Hydrochloric acid | 10% wat | 20 | + | + | Ether | tp | 20 | 0 | + |
| | | 40 | + | + | Ethyl benzene | tp | 20 | - | 0 |
| | | 60 | + | 0 | Ethylene diamine | tp | 20 | + | + |
| | up to 30% wat | 20 | + | + | Phenol | up to 10% wat | 20 | + | + |
| | | 40 | + | 0 | Fluorine, dry | tp | 20 | - | - |
| | | 60 | + | 0 | Ammonium fluoride | 50% wat | 20 | + | + |
| | 30% wat | 20 | + | + | Formaldehyde | 40% wat | 20 | + | + |
| | | 40 | + | 0 | Sodium phosphate | wat co sat | 20 | + | + |
| | | 60 | + | - | Phosgene | tp | 20 | | 0 |
| Chromic acid | up to 50% wat | 20 | 0 | 0 | Diesel fuel | | 20 | + | 0 |
| | | 40 | - | - | Glycerine | tp | 20 | + | + |
| Hydrofluoric acid | 50% wat | 20 | + | + | Hydrogen | tp | 20 | + | + |
| | 70% wat | 20 | + | + | Ammonium hydroxide | wat co sat | 20 | + | + |
| Fluosilicic acid | 32% wat | 20 | + | + | Iodine | | 20 | + | + |

| + = Resistant / 0 = Partially Resistant / - = NOT Resistant | | | | | | | | | | | |
|---|-----------------|------------|----|-----------|------------------------|------------------------------|-------------------|---------|----|----|---|
| CHEMICAL AGENTS | concentration | Temp. [°C] | PP | PE | CHEMICAL AGENTS | concentration | Temp. [°C] | PP | PE | | |
| Phosphoric acid dilution | 50% watery | 20 | + | + | Sodium iodide | wat | 20 | + | + | | |
| | 85% watery | 20 | + | + | Calcium hypochlorite | wat co sat | 20 | + | + | | |
| | | 40 | + | + | Sodium hypochlorite | 12,5% active chlorine wat | 20 | 0 | 0 | | |
| | | 60 | 0 | + | Isoctane | tp | 20 | + | + | | |
| Phthalic acid | sat wat | 20 | + | + | Mercury | pure | 20 | + | + | | |
| | | 40 | + | + | Methane | tp | 20 | + | + | | |
| Glycolic acid | 37% wat | 20 | + | + | Methylhexylketon | tp | 20 | + | + | | |
| Lactic acid | 10% wat | 20 | + | + | Naphta | | 20 | 0 | 0 | | |
| | | 40 | + | + | | | 40 | - | - | | |
| Maleic acid | wat co sat | 20 | + | + | Naphtalene | tp | | + | + | | |
| Nitric acid | up to 40% wat | 20 | 0 | 0 | Ammonium nitrate | 10% wat | 20 | + | + | | |
| | | 40 | | | Sodium nitrate | wat co sat | 20 | + | + | | |
| | | 60 | - | - | Nitrotoluene | tp | 20 | + | + | | |
| | 65% wat | 20 | 0 | - | Oleum | 10% SO2 | 20 | - | - | | |
| | | 40 | - | | Lubricant oils | | 20 | + | 0 | | |
| 100% | 20 | - | - | Olive oil | | 20 | + | + | | | |
| Oxalic acid | wat co sat | 20 | + | + | Paraffin oil | | 20 | + | + | | |
| Perchloric acid | 10% wat | 20 | + | + | Silicon oil | | 20 | + | + | | |
| | | 40 | + | + | Sodium oxalate | wat co sat | 20 | + | + | | |
| | | 60 | + | + | Ethylene oxide | tp | 20 | - | 0 | | |
| | 70% wat | 20 | + | 0 | Oxygen | tp | 20 | + | + | | |
| | | 40 | 0 | - | | | 60 | 0 | 0 | | |
| Hydrogen sulphide | tp | 20 | + | + | Ozone | in the air up to 2% | 20 | 0 | 0 | | |
| Sulphuric acid | up to 40% wat | 20 | + | + | Tetrachloroethylene | tp | 20 | 0 | 0 | | |
| | | 40 | + | + | Potassium permanganate | wat co sat | 20 | + | + | | |
| | | 60 | + | + | | | Hydrogen peroxide | 20% wat | 20 | + | + |
| | up to 60% wat | 20 | + | + | | | | | 40 | + | + |
| | | 40 | + | + | 60 | + | | | 0 | | |
| | up to 80% wat | 60 | + | + | Hydrogen peroxide | 90% wat | 20 | + | - | | |
| | | 20 | + | + | | | Petroleum | tp | 20 | + | + |
| | | | 40 | + | | | | | + | 40 | + |
| | 60 | 0 | 0 | 60 | 0 | 0 | | | | | |
| | 90% wat | 20 | 0 | 0 | Propane | tp li | 20 | + | + | | |
| | | | 40 | | | Sodium silicate | all wat | 20 | + | + | |
| | | 96% wat | 20 | - | - | Caustic soda | 50% wat | 20 | + | + | |
| | | | | 40 | | | | | 40 | + | + |
| | | | | 60 | | | | | 60 | + | + |
| | Sulphurous acid | sat wat | 20 | + | + | Ammonium sulphate | 10% wat | 20 | + | + | |
| 40 | | | | | | | | + | + | | |
| Stearic acid | tp | 20 | + | + | 60 | | | + | + | | |
| | | | | | 60 | | | + | + | | |

+ = Resistant / 0 = Partially Resistant / - = NOT Resistant

| CHEMICAL AGENTS | concentration | Temp. [°C] | PP | PE | CHEMICAL AGENTS | concentration | Temp. [°C] | PP | PE |
|-----------------------|---------------|------------|----|----|-------------------|---------------|------------|----|----|
| Tartaric acid | all wat | 20 | + | + | Tetrachloroethane | tp | 20 | 0 | 0 |
| Trichloroacetic acid | | 20 | + | + | Lead tetraethyl | tp | 20 | + | + |
| Turpentine | nc | 20 | + | 0 | Tetrahydrofurane | tp | 20 | 0 | - |
| Benzyl alcohol | tp | 20 | + | + | Toluene | tp | 20 | 0 | 0 |
| Ethanol | 96% tp | 20 | + | + | Trichloroethane | tp | 20 | 0 | 0 |
| | | 40 | + | + | Trichloroethylene | tp | 20 | - | 0 |
| | | 60 | + | + | Triethanolamine | tp | 20 | + | + |
| Methyl alcohol | all | 20 | + | + | Urea | up to 30% wat | 20 | + | + |
| Acetaldehyde | tp | 20 | + | 0 | Vaseline | tp | 20 | 0 | + |
| Chrome alum | wat co sat | 20 | + | + | Xylene | tp | 20 | - | - |
| Ammoniac | tp gas | 20 | + | + | Sulphur | tp | 20 | + | + |
| | | 40 | + | + | | | | | |
| | | 60 | + | + | | | | | |
| Acetic acid anhydride | tp | 20 | + | + | | | | | |