## ASAHI PDCPD Valve Chemical Resistance Guide

This chemical resistance guide is the result of our own evaluation based on immersion tests, literature and accumulated field experience. The results listed are to be used as reference material only. No recommendation or guarantee of material selection is expressed or implied. Since chemical resistance is affected by actual operating conditions such as pressure, temperature, stress, period of time, vibration and other flow related parameters. It is suggested that trial installations or test specimens be evaluated under actual process conditions.

| Chemicals            | Formula                                       | Concentration (%) | Max. Temperature (°F) | Recommendation |
|----------------------|---|-------------------|-----------------------|----------------|
| Acetic Acid          | CH₃COOH                                       | 10                | 175                   | No Effect      |
| Acetic Acid          | CH₃COOH                                       | 75                | 175                   | No Effect      |
| Acetone              | CH <sub>3</sub> COCH <sub>3</sub>             | 100               | 80                    | Severe Effect  |
| Aluminum Chloride    | AICI <sub>3</sub>                             | 100               | 175                   | No Effect      |
| Ammonium Hydroxide   | NH₄OH   | 10                | 175                   | No Effect      |
| Aniline              | C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub> | 100               | 80                    | No Effect      |
| Benzene              | C <sub>6</sub> H <sub>6</sub>                 | 100               | 80                    | Severe Effect  |
| Brake Oil            |   | 100               | 175                   | No Effect      |
| Calcium Hypochlorite | Ca(CIO) <sub>2</sub>                          | 5                 | 80                    | No Effect      |
| Carbon Tetrachloride | CCl <sub>4</sub>                              | 100               | 80                    | Severe Effect  |
| Caster Oil           |   | 100               | 175                   | No Effect      |
| Chlorine Water       |   | 1                 | 175                   | Slight Effect  |
| Copper Sulfate       | CuSO <sub>4</sub>                             | 16                | 175                   | No Effect      |
| Electrical Oil       |   | 100               | 80                    | Severe Effect  |
| Engine Oil           |   | 100               | 175                   | No Effect      |
| Ethyl Alcohol        | C₂H₅OH  | 100               | 175                   | No Effect      |
| Ferric Chloride      | FeCl <sub>3</sub>                             | 33                | 175                   | No Effect      |
| Ferrous Chloride     | FeCl <sub>2</sub>                             | 28                | 175                   | No Effect      |
| Formic Acid          | НСООН   | 10                | 175                   | No Effect      |
| Gasoline             |   | 100               | 80                    | Severe Effect  |
| Hydrochloric Acid    | HCI   | 10                | 175                   | No Effect      |
| Hydrochloric Acid    | HCI   | 36                | 175                   | Slight Effect  |
| Hydrofluoric Acid    | HF  | 10                | 80                    | No Effect      |
| Hydrogen Peroxide    | H <sub>2</sub> O <sub>2</sub>                 | 30                | 80                    | No Effect      |
| Linseed Oil          |   | 100               | 175                   | No Effect      |
| Methyl Alcohol       | CH <sub>3</sub> OH                            | 100               | 175                   | No Effect      |
| Motor Oil            |   | 100               | 175                   | No Effect      |
| Nitric Acid          | HNO <sub>3</sub>                              | 5                 | 175                   | No Effect      |
| Nitric Acid          | HNO <sub>3</sub>                              | 40                | 80                    | Slight Effect  |
| Nitric Acid          | HNO <sub>3</sub>                              | 40                | 175                   | Severe Effect  |
| Phosphoric Acid      | H <sub>3</sub> PO <sub>4</sub>                | 80                | 175                   | No Effect      |
| Potassium Chloride   | KCI   | 21                | 175                   | No Effect      |
| Radiator Oil         |   | 100               | 175                   | No Effect      |
| Silicon Oil          |   | 100               | 175                   | No Effect      |
| Sodium Carbonate     | Na <sub>2</sub> CO <sub>3</sub>               | 20                | 175                   | No Effect      |
| Sodium Chloride      | NaCl  | 20                | 175                   | No Effect      |
| Sodium Hydroxide     | NaOH  | 40                | 175                   | No Effect      |
| Sulfuric Acid        | H₂SO₄   | 70                | 175                   | Severe Effect  |
| Sulfuric Acid        | H₂SO₄   | 10                | 175                   | No Effect      |

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