

Petroleum Distillates

General Information

- Petroleum distillates is the term commonly used to refer to aliphatic hydrocarbons. Aliphatic hydrocarbons can actually be divided into two groups: petroleum distillates and synthetic paraffinic hydrocarbons. We use petroleum distillates to mean both types of products.
- Petroleum distillates include mineral spirits, kerosene, white spirits, naphtha, and Stoddard solvent. These products may contain trace amounts of benzene and other aromatics.
- When compared to petroleum distillates, the paraffinic hydrocarbons have lower flammability, lower aromatic content, narrower boiling range, and higher solvency. They are also more expensive than the petroleum distillates.
- The petroleum distillates (and paraffinic hydrocarbons) work well on hard-to-clean organic soils such as heavy oil and grease, tar, and waxes.
- These products typically have low liquid surface tensions (22 to 28 dynes/cm). This allows them to penetrate and clean small spaces.
- Petroleum distillates typically operate at near room temperatures. This is due to the flammability of the products. However, the flash points may be higher than that of terpenes.
- Petroleum distillates are usually used in immersion baths.
- Ultrasonics may or may not work, depending on the particular product.
- Petroleum distillates can typically handle high soil loads.
- When the cleaning power of the bath is exhausted, the entire bath usually needs to be replaced.
- Petroleum distillates are compatible with most materials including most elastomers. Mineral spirits may not be compatible with EPDM, SBR, and silicone.
- Petroleum distillates are frequently used in manual wipe-down processes.
- Aliphatic hydrocarbons are often blends containing oxygenated hydrocarbons. Flash points are higher than that of terpenes and traditional solvents. Lower flash points mean faster drying but more danger of burning.