



**Hydrocarbons 95 %  
Petroleum Ether**

# Hydrocarbons 95 %

Our range of hydrocarbons 95 % offers a wide selection of high-grade quality products, which meet the high requirements for components utilised in demanding chemical processes.

The hydrocarbons 95% product range comprises aliphatic and alicyclic hydrocarbons with a minimum purity of 95% and covers a chain length ranging from C5 to C16. For more far reaching, process-induced quality requirements, please refer to the hydrocarbons 99% product group.

Hydrocarbons 95 % are used in numerous industrial processes. The applications range from propellant components for plastic foams and cosmetics, process adjuvants and reaction media in the pharmaceutical, agrochemical and fine chemical industries, to specific printing inks and latent heat storage.

Hydrocarbons 95% are excellently suited as high-purity solvents in crystallisation, extraction, HPLC and SMB chromatography processes. Special low-odour qualities have been specifically developed for cosmetic applications.

| Hydrocarbons 95 %                      | CAS-No.   | Colour   | Density                                | Distillation range          | Evaporation rate         | Refractive index                 |
|----------------------------------------|-----------|----------|----------------------------------------|-----------------------------|--------------------------|----------------------------------|
| Typical Properties                     |           | ISO 6271 | at 15°C kg/m <sup>3</sup><br>ISO 12185 | at 101.3 kPa<br>ASTM D 1078 | (Ether = 1)<br>DIN 53170 | n <sub>D</sub> 20<br>DIN 51423-2 |
| iso-Pentane                            | 78-78-4   | < 5      | 624                                    | 27-29                       | < 1.0                    | 1.354                            |
| n-Pentane                              | 109-66-0  | < 5      | 631                                    | 36-38                       | 1.0                      | 1.358                            |
| n-Hexane                               | 110-54-3  | < 5      | 665                                    | 68-70                       | 1.5                      | 1.375                            |
| n-Heptane                              | 142-82-5  | < 5      | 688                                    | 97-100                      | 3.1                      | 1.388                            |
| iso-Octane<br>(2,2,4-Trimethylpentane) | 540-84-1  | < 5      | 696                                    | 98-101                      | 2.9                      | 1.392                            |
| n-Octane                               | 111-65-9  | < 5      | 708                                    | 124-127                     | 8.0                      | 1.398                            |
| n-Nonane                               | 111-84-2  | < 5      | 723                                    | 150-154                     | 24.0                     | 1.405                            |
| n-Decane                               | 124-18-5  | < 10     | 733                                    | 172-177                     | 67.0                     | 1.412                            |
| n-Undecane                             | 1120-21-4 | < 10     | 744                                    | 193-198                     | -                        | 1.417                            |
| n-Dodecane                             | 112-40-3  | < 10     | 753                                    | 214-219                     | -                        | 1.422                            |
| n-Hexadecane                           | 544-76-3  | < 10     | 775                                    | 285-292                     | -                        | 1.434                            |
| Cyclopentane                           | 287-92-3  | < 5      | 748                                    | 48-50                       | 1.4                      | 1.405                            |
| Methylcyclopentane*                    | 96-37-7   | < 5      | 752                                    | 70-73                       | 1.7                      | 1.409                            |
| Cyclohexane                            | 110-82-7  | < 5      | 783                                    | 79-82                       | 2.5                      | 1.426                            |
| Methylcyclohexane                      | 108-87-2  | < 5      | 773                                    | 99-102                      | 3.7                      | 1.423                            |

| Hydrocarbons 95 %                      | Aniline point  | Aromatic content            | Non-volatile matter                | Flash point               | Vapour pressure                | Kinetic viscosity                            |
|----------------------------------------|----------------|-----------------------------|------------------------------------|---------------------------|--------------------------------|----------------------------------------------|
| Typical Properties                     | °C<br>ISO 2977 | % m/m<br>GC/UV-Spectroscopy | mg/100ml<br>DIN 53172/ ASTM D 1353 | °C ISO 2719/<br>ISO 13736 | kPa at 20°C<br>(1kPa = 10mbar) | mm <sup>2</sup> /s (cSt) at 20°C<br>ISO 3104 |
| iso-Pentane                            | -              | < 0.001                     | < 2                                | < -20                     | 56.9                           | 0.35                                         |
| n-Pentane                              | 69             | < 0.01                      | < 2                                | < -20                     | 40.9                           | 0.39                                         |
| n-Hexane                               | 68             | < 0.01                      | < 2                                | < -20                     | 12.5                           | 0.47                                         |
| n-Heptane                              | 70             | < 0.02                      | < 2                                | < -4                      | 3.9                            | 0.58                                         |
| iso-Octane<br>(2,2,4-Trimethylpentane) | 79             | < 0.01                      | < 2                                | -10                       | 3.7                            | 0.68                                         |
| n-Octane                               | 73             | < 0.01                      | < 5                                | +12                       | 1.3                            | 0.74                                         |
| n-Nonane                               | 74             | < 0.03                      | < 5                                | +30                       | 0.38                           | 0.96                                         |
| n-Decane                               | 77             | < 0.01                      | < 5                                | +45                       | 0.16                           | 1.12                                         |
| n-Undecane                             | 80             | < 0.1                       | < 5                                | +67                       | 0.04                           | 1.46                                         |
| n-Dodecane                             | 85             | < 0.1                       | < 5                                | +79                       | 0.02                           | 1.87                                         |
| n-Hexadecane                           | 98             | < 0.05                      | < 5                                | > +125                    | 0.0003                         | 4.29                                         |
| Cyclopentane                           | 18             | < 0.001                     | < 2                                | < -20                     | 34.6                           | 0.59                                         |
| Methylcyclopentane*                    | 35             | < 0.01                      | < 2                                | < -10                     | 14.7                           | 0.68                                         |
| Cyclohexane                            | 31             | < 0.015                     | < 2                                | -18                       | 10.3                           | 1.26                                         |
| Methylcyclohexane                      | 46             | < 0.05                      | < 2                                | < 0                       | 4.8                            | 0.95                                         |

Sulphur content < 5ppm • Purity > 95% m/m • \*On request

# Petroleum Ether

Petroleum ether are low-aromatic and low-boiling hydrocarbon fractions (25–80°C) with narrowly defined boiling ranges. They are ideally suited for applications in which a quick evaporation of the solvent is required. Custom and low hexane options

are also available. The data below represents typical values. Specifications and Certificates of Analysis can be provided on request. All products are supplied in 200 litre drums and bulk. Other packages are available on request.

| Petroleum Ether                                      | CAS-No.    | Colour   | Density                                | Distillation range                   | Evaporation rate         | Refractive index                 |
|------------------------------------------------------|------------|----------|----------------------------------------|--------------------------------------|--------------------------|----------------------------------|
| Typical Properties                                   |            | ISO 6271 | at 15°C kg/m <sup>3</sup><br>ISO 12185 | at 101.3 kPa<br>ASTM D 1078          | (Ether = 1)<br>DIN 53170 | n <sub>D</sub> 20<br>DIN 51423-2 |
| <b>Petroleum Ether 25/40</b>                         | 109-66-0   | < 5      | 628                                    | 25–40                                | < 1.0                    | 1.357                            |
| <b>Petroleum Ether 30/40</b>                         | 109-66-0   | < 5      | 630                                    | 30–40                                | < 1.0                    | 1.358                            |
| <b>Petroleum Ether 30/50</b>                         | 64742-49-0 | < 5      | 635                                    | 30–50                                | 1.0                      | 1.359                            |
| <b>Petroleum Ether 40/60</b>                         | 64742-49-0 | < 5      | 650                                    | 40–60                                | 1.4                      | 1.367                            |
| <b>Petroleum Ether 50/70</b>                         | 64742-49-0 | < 5      | 664                                    | 50–70                                | 1.6                      | 1.375                            |
| <b>Petroleum Ether 40/80</b>                         | 64742-49-0 | < 5      | 660                                    | 40–80                                | 1.6                      | 1.374                            |
| <b>FAM-Standard-Naphtha<br/>DIN 51635</b>            | 64742-49-0 | < 5      | 698                                    | 65–95                                | 2.2                      | 1.390                            |
| <b>Petroleum Ether 60/80 AF</b>                      | 64742-49-0 | < 5      | 677                                    | 60–80                                | 1.8                      | 1.387                            |
| <b>Petroleum Ether DAB 10<br/>(max. 2% n-Hexane)</b> | 64742-49-0 | < 5      | 650                                    | min. 75%<br>40–60                    | 1.5                      | 1.368                            |
| <b>Petroleum Ether<br/>for denaturation</b>          | 64742-49-0 | < 5      | 678                                    | at 55°: 20% max.<br>at 75°: 90% min. | 1.6                      | 1.373                            |

| Petroleum Ether                                      | Flash point              | Benzene content   | n-Hexane    | Aromatic content            | Aniline point  | Non-volatile matter               |
|------------------------------------------------------|--------------------------|-------------------|-------------|-----------------------------|----------------|-----------------------------------|
| Typical Properties                                   | °C<br>ISO 2719/ISO 13736 | mg/kg (ppm)<br>GC | % m/m<br>GC | % m/m<br>GC/UV-Spectroscopy | °C<br>ISO 2977 | mg/100ml DIN 53172<br>ASTM D 1353 |
| <b>Petroleum Ether 25/40</b>                         | < –40                    | < 10              | < 1         | -                           | -              | < 2                               |
| <b>Petroleum Ether 30/40</b>                         | < –40                    | < 10              | < 1         | < 0.01                      | -              | < 2                               |
| <b>Petroleum Ether 30/50</b>                         | < –40                    | < 30              | < 5         | < 0.02                      | -              | < 2                               |
| <b>Petroleum Ether 40/60</b>                         | < –30                    | < 50              | < 5         | < 0.01                      | -              | < 2                               |
| <b>Petroleum Ether 50/70</b>                         | < –30                    | < 100             | 35          | < 0.01                      | -              | < 2                               |
| <b>Petroleum Ether 40/80</b>                         | < –30                    | < 100             | < 5         | 0.01                        | -              | < 2                               |
| <b>FAM-Standard-Naphtha<br/>DIN 51635</b>            | < –20                    | 0.1               | < 5         | -                           | 60             | < 1                               |
| <b>Petroleum Ether 60/80 AF</b>                      | < –20                    | < 10              | approx. 50  | -                           | -              | < 2                               |
| <b>Petroleum Ether DAB 10<br/>(max. 2% n-Hexane)</b> | < –40                    | 10                | < 2         | -                           | -              | < 1                               |
| <b>Petroleum Ether<br/>for denaturation</b>          | < –30                    | -                 | approx. 30  | < 0.15                      | -              | < 1                               |

Sulphur content < 5ppm

## Products and Markets

Haltermann Carless offers an ideal combination of decades of experience in the field of multiphase fractional distillation and production. A high level of customer orientation and flexibility ensures our customers receive skilled assistance and attention at all times. A high level of consistent quality is the hallmark of our products.

Haltermann Carless is ISO 9001 certified. Before using the referenced products, please refer to the relevant Safety Data Sheets or contact your Haltermann Carless representative.

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