

# HEXASOL

- Acronym : **HEXASOL**
- Synonym : **2-Methyl-2,4-pentanediol**
- CAS number : **107-41-5**
- EC number : **203-489-0**
- REACH registration number : **01-2119539582-35-0000**

## MAIN PROPERTIES

|                                      | Values   | Arkema methods | Norms references |
|--------------------------------------|--|----------------|------------------|
| Composition                          | $\begin{array}{c} \text{OH} & & \text{OH} \\   & &   \\ \text{CH}_3 - \text{C} - \text{CH}_2 - \text{C} - \text{CH}_3 \\   & &   \\ \text{CH}_3 & & \text{H} \end{array}$<br>$\text{C}_6\text{H}_{14}\text{O}_2$ |                |                  |
| Appearance at 20°C                   | Clear liquid free from suspended materials   | LCR 1116       | ASTM D 4176      |
| Color (Pt-Co)                        | ≤ 10   | LCR 1002       | ASTM D 1209      |
| Purity (% by weight)                 | ≥ 99.0   | LCR 2181       | GC               |
| Water Content (% by weight)          | ≤ 0.10   | LCR 1007       | ASTM D 1364      |
| Acidity as acetic acid (% by weight) | ≤ 0.005  | LCR 1004       | ASTM D 1613      |
| Density at 20°C (g/cm <sup>3</sup> ) | 0.920 - 0.923  | LCR 1062       | ASTM D 4052      |
| Distillation range (°C)              | 195.0 - 200.0 (*)  | LCR 1123       | ASTM D 1078      |

The above commercial specifications are guaranteed ; they were established using the test methods which were in force at the plant at the time of despatch of the product, and are in accordance with any applicable revision references. . (\*) guaranteed values not reported on analysis certificates.

## MAIN APPLICATIONS

- **Paints, inks and varnishes** : Co-solvent for water based paints, and solvent in oil based & glycerophthalic paints used to increase the drying time.
  - **Pharmaceutical industry** : Solvent of hydrophilic / hydrophobic molecules used during their extraction from plants.
  - **Concrete** : used as a shrinkage reduction admixture
  - **Chemical synthesis** : Used as a solvent or intermediate for synthesis (perfume industry, pharmaceuticals...)
  - **Cosmetics** : Synthesis of intermediates in perfume industry. Viscosity agent additive. Coupling agent. Registered on the INCI (International Notification Of Cosmetic Ingredients).
  - **Detergents** : Synthesis of intermediates in the manufacturing of additives. Coupling agent.
  - **Lubricants, Metal working fluids** : Synthesis of intermediates in the manufacturing of additives. Coupling agent.
  - **Textile et leathers** : Additive for spinning, dyeing, weaving of natural & synthetic fibers. Softening agent, anti-wrinkle, anti-static – coemulsion agent. Solubilisation enhancer and wettability agent.
  - **Others** : Fire extinguisher foams, anti-freeze, organic peroxides.
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- For further informations, please contact our technical services.

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## PACKAGING

Hexasol supplied in bulk by road tankers, isocontainers, IBC of net weight 870 kg, and in drums of net weight 195 kg .

## STORAGE / SAFETY / PRECAUTIONS DURING USE / HANDLING

Please refer to the safety data sheet before any use. Typical shelf life at 25°C is more than 12 months.

## PHYSICAL DATA

|  |   |
|--|---|
| Molecular weight.....  | 118.18                                      |
| Boiling point at 1013 hPa .....  | 197.5°C                                     |
| Vapor pressure at 20°C .....   | 0.07 hPa                                    |
| Relative evaporation rate (n-butyl acetate = 1) .....  | 0.01  |
| Freezing point .....   | - 40 °C                                     |
| Viscosity at 20°C.....   | 38 mPa.s                                    |
| Surface tension at 25°C .....  | 28.5 mN/m                                   |
| Refractive index at 20 °C.....   | 1.4276                                      |
| Latent heat of vaporization .....  | 452 kJ/kg                                   |
| Specific heat (liquid at 20°C) .....   | 1.99 kJ/kg/K                                |
| Heat of combustion at 25°C.....  | 29880 kJ/kg                                 |
| Flash point (closed cup) .....   | 97 °C                                       |
| Autoignition temperature .....   | 306 °C                                      |
| Explosivity limits in air (lower / upper).....   | 1.3 / 9.0 % (v/v)                           |
| Electrical conductivity at 22 °C .....   | 0.24 µS/m                                   |
| Water solubility at 20 °C .....  | complete                                    |
| Azeotrope with water : none.....   |   |
| Hansen solubility parameters at 25°C ( $\delta$ t, $\delta$ d, $\delta$ p, $\delta$ h) ..... | 25.2 / 15.8 / 8.4 / 17.8 MPa <sup>1/2</sup> |

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See MSDS for Health & Safety Considerations



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