FORANE 141b MGX

FORANE â 141b DGX : 95,6 %
Methanol : 4%
Inhibiteur : 0,4 %

PHYSICAL PROPERTIES

At normal temperature and pressure, FORANE® 141b is a colourless liquid with a slightly ethereal odour.

Boiling point under 1.013 bar °C	29.4
Density of liquid at 25°C	1.224
Vapour pressure at 25°C, bar	0,845
Saturated vapour density at the boiling point,	5.16
Latent heat of vaporisation at the boiling point, $kJ.kg^{-1}$	253.0
Surface tension of the liquid at 25°C, $mN.m^{-1}$	18.4
Specific heat at 25°C (kJ/kg.°C)	1.137
Refractive index	1.37
Viscosity of liquid at 25°C (mPa.s)	0.45
Thermal conductivity at 25°C (W/m.°C)	0.101
Kauri Butanol Value	77

Conversion 1 kJ/kg = 0.239 $kcal.kg^{-1}$

MATERIAL COMPATIBILITY

As a general rule ordinary metals and alloys (steel, iron, stainless steel, copper, brass, bronze, aluminium, zinc and diecasting alloy) provide good resistance to FORANE® 141b MGX at the boiling point.

FORANE® 141b MGX has no effect on thermoset plastics (such as bakelite).

Plastics have, for the most part, a good resistance to FORANE® 141b MGX (PVC, polyethylene, nylon, polycarbonate fluorinated plastics). Polystyrene polymethylmethacrylate, and ABS may present problems of compatibility with FORANE ® 141b MGX under certain conditions

SAFETY

FORANE® 141b MGX is a non flammable liquid and does not have a measurable flash point.

FORANE® 141b MGX vapour has limited flammability when mixed with air at concentrations of between 5.9 and 20.1 % of vapour to air. This is in common with other chlorinated solvents (EG T 111, 7.4-16.5 %). (The precise values and degree of flammability are very much a function of conditions and measurement).
Auto ignition temperature : 532°C.

ATOFINA

Toxicity

HCFC-141b has low toxicity. The PAFT II (Programme for Alternative Fluorocarbon Toxicity Testing) testing of HCFC-141b has been completed.

The test results indicate that HCFC-141b :

- has low acute and subchronic inhalation toxicity
- caused and increased incidence of benign, but not life-threatening, tumours in animals following long-term exposure to high concentrations.
- is not a developmental toxicant
- is not mutagenic

Work safety

As with all hydrocarbons, halogenated or not, FORANE® 141b DGX, despite its low toxicity level, can induce drowsiness and the danger of anaesthesia if it is inhaled in high concentrations, or in confined spaces where high concentrations may build up.

An exposure limit of 500 ppm, 8-hour time-weighted average, has been recommended by the American Industrial Hygiene Association, Workplace Environmental Exposure Limit (WEEL) Committee, and 200 ppm for methanol.

IMPORTANT : the above is given only as guide. Read the material safety data sheet fully before using FORANE® 141b MGX

USES

Solvent : a substitute for FORANE® 113 pure or in combinaison with other products (especially alcohol) for the removal of flux, cleaning.

COMMERCIAL SPECIFICATIONS

FORANE® 141b DGX	95.6 ± 1 %
Methanol	4 ± 0.3 % w/w
Inhibitor	0.4 ± 0.1 % w/w
Water	≤ 400 ppm
Acidity	≤ 2 ppm (HCl)
Non volatile content	≤ 500 ppm