

QUICKSOLV™ DEF 90



FEATURES

Applicable to many industries, **QUICKSOLV™ DEF 90** is a specialty solvent developed to **degrease** and **dry** many materials at room temperature.

QUICKSOLV™ DEF 90 of INVENTEC is a non azeotropic formulation of NOVEC™ 7100 and 1,2-transdichlorethylene. It is clear and colourless with a slight odour, designed to replace existing solvents that have an ODP and are hazardous. **QUICKSOLV™ DEF 90** is intended for use in cold cleaning operations.

This High-Tech fluid has no ODP. Its thermal and chemical stability, its non-flammability and its very low toxicity provide the best compromise between efficiency, safety of use and the environment.



SPECIFICATIONS

Characteristics	Units	Values	Methods
Aspect	-	Transparent, colourless	Visual
Purity	%	99,8	-
Non volatile residues	ppm	≤ 2.0	-
NOVEC™ 7100	% weight	10	-
1,2-transdichlorethylene	% weight	90	-

CHARACTERISTICS

Properties	Unit	Quicksolv™ DEF 90	CFC-113	HCFC-141b	Trichlor- ethylene	Methylene Chlorid
Boiling point	°C	≈ 43	48	32	87	39.8
Freezing point	°C	≈ -130	- 35	- 103	- 86	- 96.7
Flash point	°C	none	none	none	none	none
Density	g/cm ³	1.27	1.56	1.23	1.46	1.32
Surface tension	mN/m	13.6	17.3	19.3	22	25.5
Solubility of solvent in water	ppm	not soluble	110	2700	1100	19000
Kauri Butanol	-	> 100	> 70	> 80	> 120	> 100
Heat transfer						
Vapour pressure	kPa	65	44.1	75.9	10	73.6
Dynamic viscosity	mPa.s	0.4	0.68	0.43	0.62	0.425
Latent heat of vaporization	kJ/kg@bp	180	146	223	265	391
Specific heat	kJ/kg K	1.10	0.92	1.26	0.93	1.3

PACKAGING TYPE

Packaging types of 30 l and drums of 217 l are available.

STORAGE & SHELF LIFE

This non azeotropic blend, **QUICKSOLV™ DEF 90**, is not flammable when stored and used in normal conditions. This fluid is highly resistyant to thermal and chemical reactions. More information is detailed in the Material Safety Data Sheet which is available on request.

To ensure the best product performance it is recommended to store the products in closed containers.
Shelf life : 18 months under these conditions.

PROCESS PARAMETERS

Material compatibility

As with most solvents, **QUICKSOLV™ DEF 90** is absorbed by the plastics and the fluorinated elastomers in case of a prolonged exposure.

Metals	Plastics	Elastomers
Aluminium	Nylon	Butyl rubber*
Copper	Polyethylene	Natural rubber*
Carbon steel	PTFE	Buna-S*
Stainless steel	Polyester	EPDM
Brass	Epoxy resin	Chlorosuphonated PE
Molybdenum		Polysulphide
Tantalum		
Tungsten		
Alloy Cu/Be C172		
Alloy Mg AZ32B		

* swelling

Tested compatibility for an exposure of 1 hour at boiling temperature.

*Butyl rubber is preferable for a prolonged exposure > 1 month.

Exceptions : swelling of PTFE and silicon rubber.

The compatibility tests of **QUICKSOLV™ DEF 90** show a good compatibility with a large range of metals, plastics and elastomers, similar to the performance of perfluorinated liquids. When used with other materials, it is recommended to test the compatibility along the process.

Applications

QUICKSOLV™ DEF 90 is a cold cleaning agent to degrease, to remove oils and waxes, to replace toxic chlorinated solvents. It is far less toxic than the usual chlorinated solvents. It is very efficient for the «décolletage» and for the precision mechanic when used at an interoperation stage.

It can be also used as :

- Carrier for the lubricants,
- Cleaning agents for fluorocarbons, hydrocarbons, silicones,
- Contact Spray solvent,
- Specialty solvent,
- Replacement agent for the CFCs and HCFCs.

HSE

Property	Unit	Quicksolv DEF 90	CFC-113	HCFC-141b	Trichlor- ethylene	Methylene Chloride
Environmental data						
Ozone depletion pot.	ODP	0.00	0.80	0.10	< 0.005	< 0.005
Global warming pot.	GWP	320	5000	630	< 10	< 100
Atmospheric lifetime	years	4.1	85	9.4	8	0.5
Toxicity						
Exposure average : 8h	ppm	200	500	500	25	50
VOC						
		yes	yes	yes	yes	yes

- R phrases :**
- R 20** : Harmful by inhalation.
 - R 52/53** : Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
- S phrases :**
- S 23** : Do not breathe vapour, fumes and spray.
 - S 24/25** : Avoid contact with skin and eyes.
 - S 28** : After contact with skin, wash immediately with plenty of soap and water.
 - S 51** : Use only in well-ventilated areas.
 - S 61** : Avoid release to the environment. Refer to special instructions/safety data sheet.

Please read carefully the safety data sheet of the product **QUICKSOLV™ DEF 90** before use. All safety measures should be taken. In all kind of handling or exposition to the product, the individual protection recommended by the safety data sheet should be taken. This product contains a high purity transdichlorethylene with a TLV of 200 ppm (TWA 8h exposure). The concentration of cis-dichlorethylene is certified lower than 300 ppm. This product is then complying with the regulation and authorized by the INRS. The typical figures used here above can be changed without notice.

The information contained in this product sheet is given for indicative purposes and in no way incurs the liability of INVENTEC. All users are liable, with respect to Administrative Authorities (regulation of facilities classified for the protection of the environment) for the compliance of their installation.

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