





# PROMOSOLV<sup>™</sup> DR1

SOLVENT FOR RINSING & SPOTLESS FAST DRYING CO-SOLVENT CLEANING & DRYING PROCESS VERY LOW HSE IMPACT

## **BENEFITS**

PROMOSOLV DR1 is especially designed to replace rinsing solvents with a high HSE impact and to offer a product in accordance with the latest and future environmental regulations. It is used in combination with our TOPKLEAN<sup>TM</sup> range to offer an environmentally friendly solvent solution without compromising on high cleaning performance. The very low surface tension allows to penetrate very tight spaces, making sure any cleaning chemistry is fully removed.

This product also exists in a recycled version (made from recycled solvent) under the name PROMOSOLV DR1 T.

	Thermally and chemically stable in use
PERFORMANCE	<ul> <li>The very low surface tension allows deep rinsing of parts with complex geometry</li> </ul>
	Short rinsing and drying times
	Continuous recycling in equipment for a long bath-life
COST	Can be returned for recycling and re-use
	<ul> <li>The relative high boiling point reduces risk of solvent drag, so limiting consumption</li> </ul>
	<ul><li>Very low toxicity (refer to the SDS)</li></ul>
HSE	<ul> <li>No Ozon Depletion Potential (ODP) &amp; low Global Warming Potential (GDP)</li> </ul>
	Non-flammable

# **SPECIFICATIONS**

SPECIFICATIONS	VALUES	METHODS	
Aspect	Transparent, colorless	Visual	
Methoxy-nonafluorobutane ethers (%)	95.5% +/- 0.5	Internal / MO.SB.10033	
Isopropanol (%)	4.5% +/- 0.5	Internal / MO.SB.10033	

# **CHARACTERISTICS**

CHARACTERISTICS	VALUES		
Boiling point (°C / °F)	55°C / 131°F		
Freezing point (°C / °F)	-135°C / -211°F		
Flash point	No		
Density (g/cm³)	1.48		
Purity (% weight)	> 99.5		
Surface tension (dynes/cm)	14.5		
Vapor pressure (kPa)	27.6		
Dynamic viscosity (mPa.s)	0.75		
Latent heat of vaporization (kJ/kg@bp)	165		
Specific heat (kJ/kg.K)	1.17		

# PROCESS RECOMMENDATION

The best process will depend on factors such as operating conditions, equipment, desired cleaning time and the nature of contaminants. Our team is ready to advise you.

## PROCESS EXAMPLE

## Separated Co-Solvent

**TOPKLEAN EL 20P** PROMOSOLV DR1 PROMOSOLV DR1 **DRYING ZONE** Conc: 100% Conc: 100% Conc: 100% DR1 vapor Temp: 47 °C / 116 °F US: optional Temp: 55 °C / 130 °F Temp: 45 °C / 113 °F Temp: 55 °C / 130 °F US: optional US: optional Time: 2-5 min Time: 2-5 min Time: 5-60 sec **RINSING RINSING CLEANING DRYING** 

### Mixed Co-Solvent

TOPKLEAN EL 20P (70%)
PROMOSOLV DR1

Conc: mix 70%/30% vol
Temp: 65-72 °C / 149-162 °F
US: optional
Time: 5-10 min

PROMOSOLV DR1

Conc: 100% vol
Temp: 45 °C / 113 °F
US: optional
Time: 2-5 min

Time: 5-60 sec

PROMOSOLV DR1

Conc: 100% vol DR1 vapor
Temp: 55 °C / 130 °F
Time: 5-60 sec

DRYING

- Do not remove parts too quick out of the drying zone to prevent unwanted loss of solvent.
- A dedicated PCA Kit to monitor the bath status and compatibility report with different materials are available on request.

## PACKAGING, STORAGE & SHELF LIFE

- Keep products in closed original packaging and store at room temperature.
- Shelf life is minimum 18 months from production date when kept in recommended conditions.
- PROMOSOLV DR1 is an azeotropic formulation which guarantees a safe use & storage.

## **AVAILABLE PACKAGING**





# **HEALTH, SAFETY & ENVIRONMENT**

## PROMOSOLV DR1 is a GREENWAY product.

More info on our Greenway concept via this  $\underline{\text{link}}$ 



### MAIN CONTRIBUTORS WHICH REDUCE IMPACT:

#### **HUMAN HEALTH & SAFETY**

- Non-flammable & no flashpoint, eliminating the need for explosion proof equipment or special storage & transport
- No toxic & no corrosive impact : No S risk labelling

#### **ENVIRONMENT PROTECTION & RESOURCES SAVINGS**

- Low environmental impact: no H labelling regarding environment
- Can be returned for recycling and re-use: ECOPROGRAM
- Reduce consumption of product, consumables, water & energy

PROPERTIES	PROMOSOLV DR1	HCFC-141B	HFE 347	HFC 43-10
Ozone Depleting Potential (ODP)	0.00	0,10	0,00	0,00
Global Warming Potential (GWP)	320	630	580	1650
Atmospheric lifetime (years)	3,8	9,4	6	16,1
VOC	yes	yes	yes	yes
Flashpoint	no	no	no	no

Contains no Reach Substances (on Candidate list, Annex XIV & XVII) / Contains no persistent organic pollutant (EC 850/2004) / Contains no Import/Export Hazardous substances (EU 649/2012)

Used polluted product can be returned to us for recycling if regulations permit. Please contact your local sales contact for more details on our ECOPROGRAM.

Please refer always to the Safety Data Sheet (SDS or MSDS) prior to use. Our SDS can be downloaded at <u>www.quickfds.com</u>. We will request to provide your email address, so we can automatically send you a new version of the SDS when a future update would occur.

## **TECHNICAL SUPPORT & FREE-OF-CHARGE TESTING**

Inventec has a worldwide dedicated Technical Support team to help you along the different stages of our cooperation.

Depending on your request, we provide online or onsite support

- to select the right product based on your specific needs
- to assist you in your product qualification process
- to guide you with the initial set up of you process at all your worldwide manufacturing facilities
- to provide fast response on technical issues which could occur at any time during mass production.

Customers are also welcome in our CLEANING CENTERS to see the process in action and to get convinced by our solutions. We cover water- and solvent based processes.

Inventec is unique in the world by developing not only cleaning materials but also soldering and coating solutions. These materials are very closely linked with each other from a process point of view. Talking to our Technical Team, who understands very well these 3 different product groups, will help you greatly to overcome technical challenges within your overall process.

Contact our technical support via <a href="mailto:contact@inventec.dehon.com">contact@inventec.dehon.com</a> or your local sales representative.



PROMOSOLV<sup>TM</sup> DR1 PDS2022-09 ENV1

# **ABOUT INVENTEC**

Inventec is a global provider of CLEANING, SOLDERING & COATING materials for Electronic, Semiconductor and Industrial applications. For over 60 years we have shown leadership in innovation by putting HEALTH IMPACT, SUSTAINABILITY and RELIABILITY at the core of our product development.

With ISO 9001 & 14001 production sites in France, Switzerland, USA, Mexico, Malaysia and China we can guarantee a smooth and cost-effective supply chain.

We supply to many industries but the excellent performance of our products in applications which demand high reliability, leads us to focus especially on the AUTOMOTIVE, AEROSPACE, SEMICONDUCTOR, ENERGY and MEDICAL industry.

www.inventec.dehon.com



SOLDERING • CLEANING • COATING

In accordance with the Annex II of Directive 2011/65/UE (RoHS), including its amendments, we certify that this product does not contains quantities above 0.1% of Hg, Pb, Cr VI, PBB, PBDE, DEHP, BBP, DIBP and above 0.01% of Cd

This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will INVENTEC PERFORMANCE CHEMICALS be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

Inventec Performance Chemicals – 26 rue de Coulons. 94360 Bry-sur-Marne, France Limited company with capital of 600 000€ - 964 500 706 RCS Créteil

