



Halogenated solvent Range Sersolv ® 3 T





# For high precision cleaning without CFCs, HCFC-free, bromine-free, co-solvent-free, pre-solvent-free

#### Introduction

The physical and chemical properties of **Sersolv** ® **3 T-SV** make it a mixture close to the characteristics of the CFC 113 and 141b, which allows it to be used in the same equipment. However, even if its characteristics are similar, the use of **Sersolv** ® **3 T-SV** as a solvent in the same facilities as the CFC 113 or HCFC 141b may require an adaptation of the equipment currently used. These properties must be taken into consideration.

**Sersolv** ® **3 T-SV** specialty fluid is designed to meet the high solvency needs in the industrial cleaning market. **Sersolv** ® **3 T-SV** is a safe, nonflammable, and environmentally friendly solvent with no ozone depletion potential (ODP) which are all highly desirable in industrial cleaning applications like vapor degreasing.

### Area of application

**Sersolv** ® **3 T-SV** is a vapor degreasing solvent due to its solvent power is one of the best alternatives to CFC 113, HCFC 141b, n-propyl bromide (nPB), AK-225 and some uses of T.111 and Trichloroethylene.

### Area of use: steam degreasing or high precision cleaning

- Semi-Conductors / Electronics
  - Printed circuit boards, electrical relays, cables, optical fibers, silicon wafer, flip chips
  - Cleaning in electronics, microelectronics
- Aviation / Military / Aerospace
  - Fuel injection, landing gear, oxygen systems, printed circuit boards
- Precision cleaning of electromechanical assemblies (specified cleanliness)
- Industry / Petrochemistry
  - Pump, pipe fitting, tank
  - Cleaning and testing of refrigeration circuits.
  - Cleaning of hoses and pipes in the field of liquefied gases.

### Medical Devices

 Oxygen systems, eyewear, catheters, surgical devices/needles, implants

#### Optics

- Watches, jewelry, lenses, optical assemblies
- De-crosslinking of materials that are generally sensitive to solvents

#### Automotive

Fuel injection, brake systems, compressors, relays, sensors, switches







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### **Physical Properties**

Property	Values
Molecular Weight [g/mol]	127,8
Density at 20 °C [g/cm3]	1,23
Boiling Point [°C]	36
Freezing Point [°C]	- 43
Flash Point [°C]	None
Lower Explosion Level [% in air]	5,4
Upper Explosion Level [% in air]	9,4
Vapor Pressure [k Pa]	
0 °C	36
25 °C	77
50 °C	169
Surface Tension at 25°C [mN/m]	17,8
Viscosity Liquid at 25°C [mPa.s]	0,53
Heat of Vaporiz. atBp. [kJ/kg]	209
Specific heat at 20°C [kJ/kg °C]	1,3
Refractive Index at 20°C	1,325
Kauri Butanol Index	25
ODP	None

### **Materials Compatibility**

### Plastics and Elastomers

**Sersolv** ® **3 T-SV** has no effect on most plastics, elastomers, varnishes and marking inks.

However, we advise to avoid ABS, polystyrene, and to proceed to tests for the other materials.

### Metals

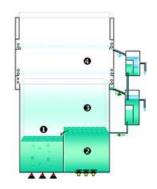
**Sersolv** ® **3 T-SV** has no effect on most metals and alloys currently used in industry (steel, aluminum, bronze, copper, iron, stainless steel, zamak, zinc).

However, reactive metals (aluminum, beryllium, magnesium, zinc) can be altered during very long contact times and especially in the presence of water.

# Hot use with product recycling - vapor degreasing

Sersolv® 3 T-SV is generally used in vapor phase cleaning equipment with double or triple cold barrier to optimize vapor condensation, allowing to minimize solvent emission.

### Basic principle and examples of equipment configurations



- 1 Boiling tank
- 2 Tank recovering the distilled product
- 3 Steam phase
- 4 Steam condensation

# Vapors condensation:

The temperature of the fluid circulating in the cooling coils must be at 0°C at the highest level on the inlet and 5°C at the outlet for the upper phase coil.

For the lower phase coil, the temperature will be -10°C up to -25°C, the higher the temperature is, the greater the product savings are.

### **Temperature settings:**

Clean product heating: 36°C Steam phase safety: 33°C In pollution concentration: 45°C

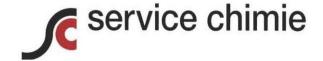
# Waterproofing:

When the equipment is stopped, it is recommended to close the equipment with a tight cover.

Like Viton ® A or Teflon ® seals. Preferred. PVC, polyethylene, polypropylene hose.

### **Ultrasound:**

**Sersolv** ® **3 T-SV** is a non-flammable liquid, it is therefore perfectly compatible with the use of ultrasound.





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### Storage & Packaging:

**Sersolv** ® **3 T-SV** is available in 250 kg and 25 kg packages. It is advisable to store the packages in a cool and ventilated area.

### Safety of use and handling

Refer to the safety data sheet.

### **Control of polluted products:**

### **Eco-Cylce:**

Service Chimie is able to provide you with the service of taking back your used products for recycling.

The information contained in this sheet is given in good faith and based on our knowledge of the product concerned. Service Chimie cannot be held responsible for the use of its products or for particular damages, given the diversity of materials and processes of use beyond its control.

We can provide you with certificates of conformity and safety data sheets.

