

SOLVON[®] PB

U.S. PATENT 6,660,701

DESCRIPTION APPROVALS COMPATIBILITY

Solvon[®] PB is a precision cleaning solvent, in a pseudoazeotropic blend - formulated for a broad spectrum of uses in cleaning and degreasing.

It has the same characteristics and similar physical properties of other halogenated solvents, such as 1,1,1-trichloroethane and trichloroethylene. It is regarded as a drop-in substitute for 1,1,1-trichloroethane without the adverse environmental hazards. Solvon[®] PB is regularly used for vapor degreasing and rapid drying.

- **Meets or exceeds ASTM-D-6368.**
- **SNAP approved by the EPA.**
- **Non-flammable**
- **Low ozone depleting potential**

Solvon[®] PB has been tested and meets the following specifications:

- **AMS1562B** Aircraft exterior surfaces
- **ARP 1755** Aircraft engine cleaning
- **ASTM-F-945** Stress corrosion of Titanium alloys (aircraft engine).
- **CSD#1** by Douglas Aircraft Company.
- **Boeing D6-17487 Rev.N** Exterior and general cleaner.
- **PWA 36604 Rev B** Hot corrosion testing of gas turbine alloys.

Various metals have been tested for compatibility with Solvon[®] PB, in accordance with Mil-T-81533A. The metal corrosion test - 24 hours exposure to boiling solvent, has yielded no sign of corrosion on the following metals:

- ✓ **Aluminum**
- ✓ **Brass**
- ✓ **Carbon steel**
- ✓ **Copper**
- ✓ **Inconel**
- ✓ **Magnesium**
- ✓ **Monel**
- ✓ **Zinc**
- ✓ **Titanium**
- ✓ **Stainless Steel**

APPLICATIONS PHYSICAL PROPERTIES

Solvon[®] PB can be useful in various applications such as:

- ✓ **Cleaner-Degreaser**
- ✓ **Printed Circuit Boards**
- ✓ **Precision cleaning**
- ✓ **Metal cleaning**
- ✓ **Carbon removal**
- ✓ **Automotive parts cleaning**
- ✓ **Drying agent.**

Solvon[®] PB can be utilized in existing vapor degreasing equipment after some adjustments. Use it in place of 1,1,1-TCA, TCE, HCFC-141b and other cleaning solvents.

An evaluation and comparison between Solvon[®] PB and other common solvents:

	Solvon [®] PB	1,1,1-TCA	TCE	MeCL	HCFC-141b
Boiling Point °C	70	74	87	40	32
Specific Gravity, 25°C	1.32	1.32	1.46	1.33	1.24
Viscosity, 25°C, cps	0.49	0.79	0.54	0.43	0.43
S. Tension dy/cm, 20°C	24.2	25.6	26.4	28.2	19.3
Vapor Pressure, 20°C	110.8	100	57.8	349	518
Specific Heat, 25°C	0.27	0.25	0.22	0.28	---
Latent Heat, cal/gm	58.8	57.5	57.2	78.7	52.3
Solubility in Water, w%	0.24	0.07	0.11	0.14	0.18
Flash Point, TCC	None	None	None	None	None
Flammability limits, v%	4-7.8	7.4-16.5	8.3-12.5	14.6-21.8	7.6-17.7
Kauri Butanol Value	125	124	129	136	56
Life Span in air	2 weeks	5 years	1 year	1 year	10 years
ODP	0.008	0.1	0		0.1
PEL, ppm	25*	350	50	25	500

*(mfg recommended), based on study by independent sources.

TECHNICAL DATA SHEET

MATERIAL COMPATABILITY CHART

The following compatibility chart lists the effect of Solvon PB on various polymers.

The test was carried out by placing a coupon of the material into boiling Solvon PB for 15 minutes and air drying for 1 minute.

Substrate	Effect	Substrate	Effect
ABS	I	Nylon 6/6	C ¹
ABS/PVC	I	Peek (Polyetherketone)	C
Acetal	C	PET	C
Acrylic/PVC (Kydex)	I	PETG	M
CPVC	I	Polyamide-imide (Torlon)	C
CTFE	C	Polycarbonate	C ¹
Delrin	C	Polyetherimide (Ultem)	C
Delrin (Glass filled)	C	Polyphenylene Oxide (Noryl)	C
ETFE (Tefzel)	C	Polypropylene	C ¹
FEP	C	Polysulfone	M
HDPE	C ¹	PTFE	C
LDPE	I	PVC (Type I)	I
Nylon 6/12	C	PVDF (Kynar)	C

C – Compatible, less than 1% change in weight.

C1 – Compatible, but with slight weight change, less than 5% change in weight. Fittings may have to be adjusted after wetting.

M – Marginal, 5 – 10% change in weight. Materials should not be used for prolonged exposure.

I – Incompatible, more than 10% change in weight.

SAFETY

- Solvon® PB is not regulated as a hazardous waste under RCRA.
- Solvon® PB is not regulated as hazardous air pollutant under NESHAP.
- Solvon® PB is still considered VOC and must be used according the regulations.

For complete safety information, please refer to Solvon® PB Safety Data Sheet.

PACKAGING

Solvon® PB is available in 580 Lb. drums and 54 Lb. pails.

Smaller size packaging available upon request.

The product should be stored in the original containers in a cool, dry and ventilated place. Do not expose to temperatures higher than 120°F.

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