

NEXT 3000

NON FLAMMABLE AZEOTROPIC FLUORINATED SOLVENT FOR PRECISION CLEANING

TECHNICAL DATA SHEET

FEATURES AND BENEFITS

- EXCELLENT SOLVENCY POWER
- LOW BOILING POINT (94° F)
- AZEOTROPE-LIKE
- LOW SURFACE TENSION
- LOW VISCOSITY
- NON FLAMMABLE
- NO FLASH POINT

CONTAMINANTS REMOVED

- ADHESIVES
- BUFFING COMPOUNDS
- REFRIGERANT OILS
- HEAVY GREASES
- HYDRAULIC OILS
- SILICONE OILS
- ROSIN FLUXES
- DRAWING OILS
- AND MANY OTHERS...

ENVIRONMENTAL PROPERTIES

- ZERO OZONE DEPLETION POTENTIAL
- LOW GLOBAL WARMING POTENTIAL
- US EPA SNAP APPROVED
- LOW VOC CONTENT
- REDUCED CARBON FOOTPRINT



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INTRODUCTION

NEXT 3000 is a patent pending azeotrope-like mixture of 1,2-*trans*-dichloroethylene and proprietary fluorinated compounds. It was designed for vapor degreasing applications as a direct substitute for solvents like nPB, Chemours Vertrel®, 3M Novec®, HCFC-225 and others.

NEXT 3000 has a very low global warming potential and effectively zero ozone depletion potential, making it a very environmentally conscious choice. The primary fluorinated compound in this product is also US EPA SNAP approved.

This Technical Data Sheet details NEXT 3000's physical and chemical properties, environmental profile, health and safety information and typical usage applications. For further information, please consult the Safety Data Sheet (SDS).

APPLICATIONS

This solvent blend is perfectly suited for vapor degreasing in modern equipment, refrigerant flush applications and many others. Its solvency for hydrocarbon soils and fluxes is excellent. It can reliably replace cleaning solvents such as nPB, TCE, Chemours Vertrel®, 3M Novec®, HCFC-225 and others in many applications. It can also be used as a carrier fluid for deposition of materials such as silicone or other oils.

CLEANING METHOD

The most effective and efficient method of using NEXT 3000 for cleaning is vapor degreasing. Modern vapor degreasing equipment that have freeboard chillers set at sub-zero temperatures in addition to refrigerated primary condensing coils are ideal. NEXT 3000 is not subject to NESHAP regulations, however following NESHAP guidelines is recommended in order to minimize evaporative losses

ENVIRONMENTAL PROPERTIES

NEXT 3000 and its ingredients are listed "acceptable" by the U.S. EPA under the SNAP program as a substitute for ozone depleting substances. The ODP is near zero and its GWP is exceptionally low. Spent NEXT 3000 is not considered a hazardous waste

All ingredients are TSCA inventory listed. The mixture is not subject to SARA Title III (EPCRA) reporting regulations. It is not considered a Hazardous Air Pollutant (HAP) and therefore is not regulated under NESHAP.

HEALTH AND SAFETY

Data from peer-reviewed studies has shown that NEXT 3000 has exceptionally low toxicity. Acute inhalation toxicity is low and it is a slight skin and eye irritant. Published AEL and TLV figures, based on 8-hour time weighted average (TWA) exposures, suggest no adverse effects at up to 200 ppm. Refer to the SDS for a detailed description of these figures for the individual chemical components of NEXT 3000.

MATERIALS COMPATIBILITY

NEXT 3000 is compatible with most polymers and elastomers typically encountered during cleaning and vapor degreasing of precision parts, electronics, etc.

The solvent is also compatible with copper, stainless steel, aluminum, iron and every other metal commonly used in precision parts manufacturing.

An incomplete reference chart showing plastics and elastomers compatibility is available on page 2 of this Technical Data Sheet. In laboratory bench tests of widely used plastics and elastomers, there were very few incompatibilities found after immersion in boiling vapors for up to 15 minutes time.

NEXT 3000

AN EFFECTIVE ALTERNATIVE TO N-PROPYL BROMIDE AND HCFC-225

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE.....	CLEAR & BRIGHT
ODOR.....	SLIGHT
FLASH POINT.....	NONE
SURFACE TENSION.....	0.0141 N/m
SPECIFIC GRAVITY.....	1.28 kg/l @ 25°C
BOILING POINT.....	34.4°C (94°F)
VISCOSITY.....	0.41 cPs
HEAT CAPACITY.....	1.23 kJ/(kg°C)
VAPOR PRESSURE.....	223.4 torr
VAPOR FLAMMABILITY IN AIR, VOL %.....	
LOWER LIMIT.....	6.0%
UPPER LIMIT.....	10.0%

FLAMMABILITY

NEXT 3000 exhibits no flash point on either Pensky-Martens Closed Cup (ASTM D93) or Tag Closed Cup (ASTM D56) methods and is not classified as flammable by NFPA or DOT. However, as is true with almost all halogenated solvents, it does have flammable limits in air with a LEL of 6.0% and a UEL of 10.0% (% by volume in air) in the presence of a high ignition energy source (e.g. a welding torch). NEXT 3000 is not classified as flammable or hazardous for transport by NFPA or DOT.

SOLVENT RECOVERY

This product is readily recoverable by distillation equipment such as a vapor degreaser or still. Because NEXT 3000 is a near azeotrope, the percentages of the different compounds within it will stay within tolerance ranges through regular use and distillation processes. The presence of contaminants may alter the characteristics of the solvent during recovery (e.g. boiling point, etc.). Solvent recovery processes should be monitored to ensure the most efficient recovery possible.

STORAGE AND HANDLING

NEXT 3000 is thermally stable, and will not oxidize or degrade during storage under normal conditions. It is recommended to store the product in a clean, dry area and out of direct sunlight or other heat sources. Do not freeze or store below 32°F (0°C) nor above 125°F (52°C) to prevent leakage or potential rupture of container due to contraction/expansion and pressure changes. Drum pumps are recommended to dispense the solvent from its container. Refer to the Safety Data Sheet for more information, or contact Enviro Tech for further assistance.

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MATERIAL COMPATIBILITY

This product is compatible with all metals and most plastics and elastomers. Testing should always be done on parts to be cleaned in a particular process prior to implementing NEXT-3000 into the process.

COMPATIBLE MATERIALS

Polyethylene	Polypropylene
Polyvinylchloride (PVC, CPVC)	Acetal
Polyester (PET, BET)	Epoxy
Polyimide (PI, PEI, PAI)	PTFE, Teflon
Polyetherketone (PEK)	Polysulfone (PSO)
Polyaryletherketone (PEEK)	Phenolic
Polyarylsulfone (PAS)	Ionomer
Polyphenylene Sulfide (PPS)	EPDM

INCOMPATIBLE MATERIALS

Polystyrene	Epichlorohydrin
Polyphenylene Oxide (PPO)	Silicone
Polycarbonate	Natural Rubber
ABS	Acrylic

PACKING INFORMATION

PRODUCT IS AVAILABLE IN THE FOLLOWING CONTAINER SIZES AND WEIGHTS:

5 GAL PAIL	50 LBS (23KG)
55 GAL DRUM	551 LBS (250KG)

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