

# How to Successfully Handle the nPB Ban

WHEN YOU NEED **SAFER, MORE EFFECTIVE SOLUTIONS,**  
CALL KYZEN FOR **ALTERNATIVES.**

If you are cleaning parts using solvent, pending future changes in state and federal laws governing the use of hazardous cleaning solvents such as 1-Bromopropane (commonly called nPB) will require you to rethink how your company can effectively meet your parts cleaning requirements when this solvent is phased out due to regulatory action. If you are not sure what type of cleaning solvent you are using, check the chemical data sheet and safety data sheet. Verify if n-propyl bromide or 1-Bromopropane are listed, or check for this chemical formula:  $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$ . You can also identify nPB by its CAS number: #106-94-5

## 1. ACCEPT THE CHALLENGES

Know how this ban will affect your solvent cleaning process and/or production methods.

## 2. THERE IS STRENGTH IN UNITY!

Get expert advice from a business you can trust.

## 3. PLAN YOUR JOURNEY WISELY - EXAMINE THE ALTERNATIVES

- ✓ Replace your old generation degreaser with a new vacuum degreaser using more environmentally preferred solvents
- ✓ Replace nPB, TCE, or others with another solvent in your existing degreaser
- ✓ Convert cleaning process from solvent to aqueous

## 4. FINDING THE RIGHT FINANCIAL CHOICE

Calculate the end cost for all alternatives

## 5. LOOK BEFORE YOU LEAP

- ✓ Perform trials
- ✓ Test / test / test
- ✓ Build a sound matrix

## RISKS OF NOT PREPARING:

- ✗ **Environmental Compliance:** If you are using these type solvents and do not have a proper air permit, or your equipment cannot meet the regulated emissions limits - your facility may be subject to enforcement fines and/or penalties. Some can be severe based on scope of non-compliance. Your cleaning system could actually be shut-down stopping production.
- ✗ **Personal Safety:** Continued use of a solvent that the EPA and OSHA have determined "presents an unreasonable risk to human health" in a vapor degreasing application could create future issues.



# KYZEN ALTERNATIVES TO nPB CAN BE USED IN THE FOLLOWING PROCESSES:

KYZEN is the global leader in the development of high performance, innovative cleaning process solutions for Electronics Manufacturing, Metal Finishing and Advanced Packaging applications. We go beyond ever-changing compliance regulations to surpass customer expectations in quality, technical support and process innovation. That's why KYZEN has been honored with nearly 100 prestigious industry awards in categories including New Product Innovation, Environmental, Best Cost of Ownership, and the Customer Service Award, for 15 years consecutively. Take a look below at the best nPB options for you and let us know if you have any questions.

**NOTE: All products are to be tested for process capability.**

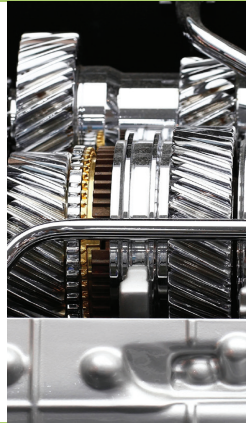
## ALTERNATIVES FOR ELECTRONICS AND METAL FINISHING INDUSTRY

### **METALNOX M6900** (Engineered Vapor Cleaning Solvent)

An engineered vapor cleaning solvent that is recommended for use in modern vapor degreasing systems with double coil refrigeration and provides exceptional results in the vapor phase as well as during immersion.

### **METALNOX M6920** (VOC-Free Solvent Cleaner)

A highly effective VOC-free cleaning solution intended for use in vapor degreasing equipment, cold cleaning, and manual cleaning and is a suitable replacement for AK225. M6920 has proven compatible with a variety of metal parts, such as stainless steel, copper, iron, aluminum, and titanium.



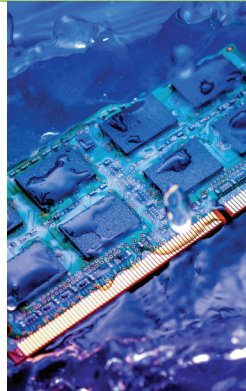
## ALTERNATIVES FOR ELECTRONICS INDUSTRY

### **MICRONOX MX2501** (Engineered Cleaning Solvent for Electronics)

An engineered precision vapor cleaning solvent designed to be a drop-in replacement for modern era vapor degreasing equipment. MX2501 is effective in removing no-clean and rosin flux residues with superior performance characteristics over other fluorinated based cleaning solvents.

### **METALNOX M6922** (VOC Compliant Green and Clean Solvent)

Effective in solubilizing various fluxes and other contaminants that are present in electronics cleaning. M6922 is VOC Exempt as per US EPA, and non-flammable as per ASTM E-681. The M6922 can be used as a stand-alone cleaning solvent in vapor degreasing, or as rinse agent in KYZEN Duo-Solvent process and is compatible with most metals and various plastics and elastomers.



## ALTERNATIVES AFTER MACHINE REPLACEMENT

### **METALNOX M6386** (Modified Alcohol Solvent Cleaner)

A modified alcohol-based solvent blend designed for use in automated vacuum degreasing parts cleaning machines. M6386 is highly effective on paraffinic and water-based oils, cutting fluids and milling fluids commonly used to forge and cast metal hardware, fasteners and components.

### **METALNOX M6381** (Precision Hydrocarbon Solvent Cleaner)

A hydrocarbon solvent cleaner formulated for use in continuously regenerated solvent cleaning machines and is commonly used to clean parts supplied to the automotive, electronics, aerospace and other high-tech industries.

