

User Manual: NexBot Robotics 733-004 Cleaning Solvent (1L)

SKU: NXB-GEN-733-004 | Version: 1.0 | Brand: NexBot Robotics

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1. Safety Information

READ ALL SAFETY INSTRUCTIONS BEFORE OPERATION. Failure to follow safety procedures may result in serious injury or equipment damage.

DANGER: Highly flammable liquid and vapor. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Keep container tightly closed and grounded.

WARNING: Causes serious eye irritation and may cause skin irritation. May cause drowsiness or dizziness. Use only outdoors or in a well-ventilated area. Avoid breathing vapors.

WARNING: Prolonged or repeated skin contact may defat the skin and produce dermatitis. Always wear appropriate solvent-resistant gloves (e.g., Nitrile) during handling and use.

CAUTION: May damage certain plastics, elastomers, and painted surfaces. Always test on a small, inconspicuous area before widespread application to ensure material compatibility.

NOTICE: Store in a cool, dry, well-ventilated location away from direct sunlight and incompatible materials. Improper storage can reduce shelf life and effectiveness.

2. Product Overview

The NexBot Robotics 733-004 Cleaning Solvent is a specialized, high-purity fluid formulated for the routine maintenance and cleaning of industrial robotic systems. This solvent is engineered to effectively dissolve and remove grease, oils, cutting fluids, and other contaminants from robot arm surfaces, joints, and end-of-arm tooling without leaving a residue. Its primary benefit is a rapid evaporation rate, which minimizes downtime during preventive maintenance cycles and ensures surfaces are clean and dry for subsequent lubrication or operation. Formulated to be non-corrosive and plastic-safe, it protects sensitive coatings, seals, and electronic housings from degradation. This makes it a suitable cleaning agent for the entire robot structure, from the base to the wrist. With a high dielectric strength exceeding 30 kV, the 733-004 solvent provides an added layer of safety when used on de-energized electrical components and connectors, helping to maintain signal integrity and prevent short circuits caused by conductive grime. The solvent also features a flash point above 60°C (140°F), classifying it as a combustible but not flammable liquid, which enhances storage and handling safety in an industrial environment. Regular use of this solvent as part of a scheduled maintenance plan helps prevent the buildup of performance-inhibiting contaminants, extending the operational life of critical components and ensuring consistent robotic accuracy. It is ideal for preparing surfaces before applying new lubricant or for general cleaning of the robot cell.

3. Getting Started

1. Product Overview

The NexBot Robotics 733-004 Cleaning Solvent is a high-purity, fast-evaporating fluid designed specifically for maintenance of NexBot robotic systems. Its formulation is optimized to remove industrial soils such as grease, oil, and grime from non-porous surfaces without leaving a residue, minimizing system downtime.

2. Storage and Handling

Store the 1L container (SKU: NXB-GEN-733-004) upright with the cap securely fastened in a designated flammable liquids cabinet. The storage temperature should be kept stable and within the range specified on the product's Safety Data Sheet (SDS). Avoid storing near strong oxidizing agents.

3. Personal Protective Equipment (PPE)

The minimum required PPE for handling this solvent includes chemical splash safety goggles and nitrile gloves. Depending on the application method and ventilation, additional protection such as a face shield or an organic vapor respirator may be necessary. Consult the SDS for detailed PPE requirements.

4. Operation

General Surface Wiping

This is the most common application method for routine cleaning of robot arms and casings. Apply the solvent to a lint-free cloth and wipe the surface until clean. For best results, frequently refold the cloth to expose a clean section and prevent re-deposition of contaminants.

Tip: Wipe in a single direction on cosmetic surfaces to avoid creating swirl marks or streaks.

Targeted Spray Application

For hard-to-reach areas like joints and crevices, decant the solvent into a properly labeled, solvent-resistant spray bottle. Apply a light mist to the target area and wipe immediately with a clean cloth or use a soft brush to agitate stubborn grime before wiping.

Tip: To avoid overspray onto sensitive components, spray directly onto the cleaning tool (cloth or brush) instead of the robot itself.

Cleaning End-of-Arm Tooling (EOAT)

EOAT often accumulates heavy grease and specific process-related contaminants. Ensure the tool is de-energized and disconnected. Use a saturated wipe or brush to meticulously clean grippers, chucks, and mounting surfaces, paying close attention to moving parts.

Removing Adhesives or Sealants

The solvent can be effective at softening certain uncured adhesives and sealants. Apply the solvent and allow a brief dwell time (30-60 seconds) to penetrate the residue before scraping with a non-marring tool (e.g., plastic scraper) and wiping clean.

Tip: Multiple applications may be needed for thick or aged adhesive residues. Patience prevents surface damage from excessive force.

5. Maintenance Schedule

Interval	Task	Notes
As Needed	Dispose of used, contaminated wipes and any waste solvent.	Follow all local and federal regulations for hazardous waste disposal. Never pour waste solvent down a drain.
Weekly	Check inventory levels of NXB-GEN-733-004.	Ensure adequate stock is on hand for scheduled preventive maintenance tasks to avoid downtime.
Monthly	Inspect the solvent storage area for any signs of leaks or spills from containers.	Clean up any spills immediately using appropriate absorbent materials.
Quarterly	Review the Safety Data Sheet (SDS) for any updates or changes.	Ensure all personnel who handle the solvent have access to and are familiar with the current SDS.
Annually	Rotate stock to ensure First-In, First-Out (FIFO) usage.	Check the expiration date on containers and prioritize using

Interval	Task	Notes
		the oldest stock first to maintain product efficacy.

6. Troubleshooting

Symptom	Possible Cause	Solution
A white or hazy residue remains on the surface after cleaning.	The solvent is reacting with a heavy contaminant, or the cleaning wipe is dirty and re-depositing residue. Can also be caused by using a 'hard' water rinse after cleaning.	Re-clean the area with a fresh, clean lint-free wipe and fresh solvent. Do not follow solvent cleaning with a water rinse.
Solvent does not appear to be cleaning effectively.	Contamination is too heavy or has cured. The solvent may also be past its effective shelf life.	Pre-clean the area to remove loose debris. Allow the solvent more dwell time on the surface before wiping. If ineffective, verify the solvent is within its expiration date and obtain a new container.
Solvent evaporates too quickly to be effective.	High ambient temperature or excessive direct airflow (e.g., from a fan) over the surface.	Work in smaller, more manageable sections. If possible, reduce direct airflow or perform the cleaning in a cooler environment.
Plastic, rubber, or painted surfaces show signs of swelling, softening, or discoloration.	The surface material is incompatible with the solvent.	Immediately stop use on that material. Wipe away any excess solvent. Consult the NexBot Robotics material compatibility chart or technical support before proceeding.
Strong solvent odor lingers in the work area for an extended period.	Inadequate ventilation or a significant spill has occurred.	Increase ventilation immediately by opening doors, windows, or activating fume extraction systems. Check for and clean up any spills. Ensure container caps are tightly sealed.
Skin becomes red, dry, or irritated after contact.	Direct skin contact with the solvent without proper PPE.	Wash the affected area thoroughly with soap and water. Apply a moisturizing lotion. In the future, always wear solvent-resistant gloves during handling and use.

7. Technical Specifications

Parameter	Value	Unit
Weight	1.2	kg
Country of Origin	IT	
Dimensions	240 x 90 x 90 mm	