



INSTRUCTIONS FOR CLEANING REPLICATOR PINS WITH VP 110 PIN CLEANING SOLUTION

Prepare 1:5 dilution of VP 110 Pin Cleaning Solution:

1. 30 ml VP 110 Pin Cleaning Solution and 120 ml distilled H₂O (dH₂O)*.
2. Mix well. Store in covered dish (e.g., VP 420) at room temperature for multiple uses. Replace the VP 110 with a fresh dilution after 2 months or if a precipitate is seen in the bottom of the container.

Clean Pins:

1. Dip Replicator pins into 1:5 VP 110 Pin Cleaning Solution to approximately ½ pin length or the depth the pins will be submerged in the sample plates.
Move pin tips up and down through the meniscus 3X to ensure the even cleaning of pins
2. If cleaning slot pins, visually inspect slots for air bubbles.
Repeat Step 1 if air bubbles are seen in slots
3. Blot onto VP 522 Lint-Free Blotting Paper.
4. Repeat Steps 1-3 1X.
5. Set up two dH₂O* reservoirs and a 99% isopropanol reservoir (e.g., in pipette tip lid boxes).
6. Dip Replicator pins into first dH₂O reservoir.
Move pin tips up and down through the meniscus 3X
7. Blot onto VP 522 Lint-Free Blotting Paper.
8. Repeat Steps 6-7 through remaining dH₂O reservoir.
9. Dip Replicator pins into the isopropanol reservoir.
Move pin tips up and down through the meniscus 3X
10. Blot onto VP 522 Lint-Free Blotting Paper.
11. Air dry or use hot air dryer to dry pins. Replicator pins are now ready for use.

CAUTION --- The VP 110 Pin Cleaning Solution contains a dilute acid that can strip the protective anodized surface off the black anodized aluminum Replicator bases or Pin Tool float plates. If the VP 110 Pin Cleaning Solution comes in contact with an anodized surface, quickly rinse it off with water. Most current Replicator bases or Pin Tool float plates are now protected by a Ni-Lube coating that is not damaged by acid solutions.

*Always use distilled H₂O and not deionized H₂O in all Replicator and Pin Tool applications. Long term exposure to deionized H₂O will damage the stainless steel pins.

PRODUCT NUMBER: VP 110
PRODUCT NAME: PIN CLEANING SOLUTION

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MATERIAL SAFETY DATA SHEET

SECTION 1 -----CHEMICAL IDENTIFICATION-----

CATALOG #: VP 110
NAME: PIN CLEANING SOLUTION

SECTION 2 ----- COMPOSITION/INFORMATION ON INGREDIENTS-----

| HAZARDOUS COMPONENTS | CAS # | OSHA PEL | WEIGHT (%) |
|----------------------|-----------|----------|------------|
| PHOSPHORIC ACID * | 7664-38-2 | 1mg/m3 | 10 |

(* NOTE: A SARA 313 CHEMICAL)

SECTION 3 ----- FIRST-AID MEASURES-----

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS. IF IRRITATION PERSISTS, CALL PHYSICIAN.

IF INHALED, REMOVE TO FRESH AIR. IF UNCONCIOUS, CALL PHYSICIAN.
IF INGESTED, DRINK LARGE AMOUNTS OF WATER, CALL PHYSICIAN.

SECTION 4 ----- PHYSICAL/CHEMICAL PROPERTIES-----

| | |
|--------------------------------------|------------------------------|
| BOILING POINT: >212°F | SPECIFIC GRAVITY: 1.09 |
| VAPOR PRESSURE: NOT TESTED | MELTING POINT: NOT TESTED |
| VAPOR DENSITY: NOT TESTED | EVAPORATION RATE: NOT TESTED |
| SOLUBILITY IN WATER: 100% | |
| APPEARANCE AND ODOR: BLUE, MINT ODOR | |

SECTION 5 ----- FIRE AND EXPLOSION HAZARD DATA-----

| | |
|--------------------------------|-----------------------------------|
| FLASH POINT: NONE | FLAMMABLE LIMITS: NOT TESTED |
| LEL: NONE | UEL: NONE |
| Ph: <2 | DOT #: CORROSIVE-LIMITED QUANTITY |
| NFPA HAZARD RATING: H F R S | |
| (0-LEAST, 4-EXTREME) : 2 0 0 0 | |

EXTINGUISHING MEDIA: NONE
SPECIAL FIRE FIGHTING PROCEDURES: NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

SECTION 6 ----- HEALTH HAZARD DATA-----

ROUTES OF ENTRY

INHALATION? POSSIBLE

SKIN? POSSIBLE

INGESTION? POSSIBLE

HEALTH HAZARDS: SAME AS SIGNS AND SYMPTOMS OF EXPOSURE

NOTE: ALL CHEMICALS INCORPORATED INTO THIS PRODUCT ARE FOUND ON THE TSCA INVENTORY LIST.

OSHA CARCINOGENICITY? NONE

NTP? NONE

IARC MONOGRAPHS? NONE

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: BURNING IRRITATION

SKIN: IRRITATION

INGESTION: IRRITATION, NAUSEA

INHALATION: IRRITATION

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE – SAME AS SIGNS AND SYMPTOMS OF OVEREXPOSURE.

SECTION 7 ----- REACTIVITY DATA-----

STABILITY: STABLE

CONDITIONS TO AVOID: NONE

INCOMPATIBLE MATERIALS TO AVOID: STRONG OXIDIZERS, AMMONIA

HAZARDOUS DECOMPOSITION OR BY PRODUCTS: CO, CO₂

HAZARDOUS POLYMERIZATION: NONE

CONDITIONS TO AVOID: NONE

SECTION 8 ----- PRECAUTIONS FOR SAFE HANDLING AND USE-----

IN CASE OF SPILL, ABSORB WITH INERT, ABSORBANT MATERIAL. PLACE IN PROPER WASTE DISPOSAL CONTAINER.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE IN A COOL, DRY PLACE, OUT OF DIRECT SUNLIGHT. DO NOT FREEZE OR HEAT ABOVE 110°F

OTHER PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. FOLLOW INSTRUCTIONS PROVIDED FOR PROPER USE OF THIS PRODUCT.

SECTION 9 ----- CONTROL MEASURES-----

RESPIRATORY PROTECTION: OPEN ALL DOORS AND WINDOWS. EXPOSURES ABOVE THE TLV OR PEL REQUIRE A NIOSH APPROVED RESPIRATOR EQUIPPED FOR THE EXPOSURE OR SUITABLE RESPIRATORY PROTECTION PER 29 CFR 1910.134.

VENTILATION LOCAL EXHAUST: IF AVAILABLE SPECIAL: NONE
MECHANICAL: IF AVAILABLE OTHER: NONE

PROTECTIVE GLOVES: RUBBER, PLASTIC

EYE PROTECTION: GLASSES, GOGGLES

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NONE