

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: PV Klean    Product Number: PVK000    CAS Number: Blend

NuGeneration Technologies, LLC: 100 Professional Center Drive, Suite 101, Rohnert Park, CA 94928 USA  
 (707) 820-4080 (product information), 800-424-9300 or 202-483-7616 (CHEMTREC: For emergencies)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% PV Klean    CONTAINING:    HAZARDOUS AND/OR REGULATED COMPONENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
POTASSIUM HYDROXIDE	< 3.0 %	1310-58-3

### NON-HAZARDOUS COMPONENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
NONIONIC SURFACTANT BLEND	< 10.0 %	proprietary
Anionic Surfactant	< 3.0 %	proprietary
Balance non-hazardous ingredients- DI water	Balance	7732-18-5

HAZARDS DISCLOSURE: This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200. As defined under Sara 311 and 312, this product contains no known hazardous materials.

SPECIAL NOTES:    This product contains NO ammonia or amines.

## 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:    CAUTION Corrosive Material - Avoid eye and skin contact. May cause skin and eye irritation or burns.
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HMIS/NFPA Rating: Health - 2, Flammability - 0, Reactivity - 0    Personal Protection Index - C

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme).

### POTENTIAL HEALTH EFFECTS

EYE:    Causes eye irritation and or burns.    SKIN:    Contact May cause skin irritation or burns.

INHALATION:    No hazards expected in normal industrial use at room temperature.    Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

INGESTION: May be harmful if swallowed. Irritating to mouth, throat, or stomach and may cause tissue burns.

SIGNS AND SYMPTOMS OF EXPOSURE: If exposed areas are flushed promptly and thoroughly with water, there should be little or no harm. Long-term exposure may lead to rash or burn.

CARCINOGENICITY INFORMATION:    No known cancer hazards.

MISCELLANEOUS:    Solutions extremely slippery when spilled.

## 4. FIRST AID MEASURES

EYE CONTACT FIRST AID: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.

Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID: Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

INHALATION FIRST AID: Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen. Get medical attention if cough or other symptoms develop. Remove from area of exposure. Seek immediate medical attention if respiratory irritation or distress continues.

INGESTION FIRST AID: Give milk or water. Do not induce vomiting. Get medical attention immediately.

STATEMENT OF PRACTICAL TREATMENT:    Always have plenty of water available for first aid.

NOTES TO PHYSICIAN:    Treat patient symptomatically.

## 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Autoignition Temp: None

COC Flash Point: None    TCC Flash Point: None

FLAMMABLE LIMITS IN AIR: LEL: None; UEL: None     EXTINGUISHING MEDIA: Will not burn.  
 FIRE & EXPLOSION HAZARDS: Incinerating may create toxic decomposition products.  
 FIRE FIGHTING INSTRUCTIONS: Contaminated extinguishing water must be disposed of in accordance with applicable regulations.

## 6. ACCIDENTAL RELEASE MEASURES

### SAFEGUARDS (PERSONNEL):

Protect skin and eyes from exposure. Wear appropriate personal protective equipment.

### INITIAL CONTAINMENT:

Floor may become slippery. Contain spilled material. Wash area to prevent slipping. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

### SPILLS PROCEDURE:

Forms smooth, slippery surfaces on floors, posing an accident risk. Clean up spills immediately, observing precautions in Protective Equipment section. Neutralize spill with a weak acid such as vinegar or acetic acid. Flush spill area with water to wastewater treatment system. After removal, flush contaminated area thoroughly with water. Or, absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container and dispose of in an approved sanitary landfill. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

## 7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE     Minimum: 4.4C (40F)     Maximum: 48.9C (120F)

SHELF LIFE (in original sealed containers): 5 years @ 4.4 C     3 years @ 48.9 C

HANDLING (PERSONNEL): Avoid contact with eyes, skin, and clothing.

STORAGE PRECAUTIONS: Keep from freezing. Keep container closed when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### ENGINEERING CONTROLS:

Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### EYE / FACE PROTECTION REQUIREMENTS:

When splashing of the material may occur, chemical goggles and a face shield are recommended.

### SKIN PROTECTION REQUIREMENTS:

Wear protective gloves to minimize skin contact. Nitrile rubber and PVC are suitable protective materials; Neoprene is recommended. Wash hands thoroughly after handling.

### RESPIRATORY PROTECTION REQUIREMENTS:

Under normal use conditions, with adequate ventilation, no special handling equipment is required.

MISCELLANEOUS:     Where an apron and protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid	COLOR: Yellow to Amber
ODOR: Mild	BOILING POINT: >212 F
SOLUBILITY IN WATER: Complete	SPECIFIC GRAVITY: 1.135 (Water = 1)
BULK DENSITY: 9.47	MELTING/FREEZING POINT: <32 F
PH: 12.5	PH @ 5%: 11.5     % VOLATILES = 0%

## 10. STABILITY AND REACTIVITY

STABILITY:     Stable.

POLYMERIZATION:     Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS: May react with acidic materials. May corrode copper, aluminum, zinc, and their alloys.

DECOMPOSITION: Decomposition will not occur if handled and stored properly. Product may decompose at temperatures above 270°C and release carbon, nitrogen or oxides.

CONDITIONS TO AVOID: This material is safe under normal storage and handling conditions. Avoid contact with this material and copper, aluminum, zinc, and their alloys.

## 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Can cause severe eye irritation.  
SKIN EFFECTS: Contact may cause skin irritation.  
ACUTE ORAL EFFECTS: No know hazards in normal industrial use.  
ACUTE INHALATION EFFECTS: No know hazards in normal industrial use.

## 12. ECOLOGICAL INFORMATION - No information available.

## 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Un-cleaned empty containers should be disposed of in the same manner as the contents. Dilute or neutralize with acid and discharge to an industrial sewage treatment facility. Or bury in an approved sanitary landfill. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

CONTAMINATED MATERIALS: Wash contaminated clothing before reuse.

CONTAINER DISPOSAL: Containers should be triple rinsed prior to disposal.

## 14. TRANSPORTATION INFORMATION

PRODUCT LABEL.....: PV Klean D.O.T. SHIPPING NAME.....: Corrosive Liquid  
TECHNICAL SHIPPING NAME...: corrosive liquid (potassium hydroxide mixture)  
D.O.T. HAZARD CLASS.....: 8  
UN NUMBER.....: UN 1760 PRODUCT RQ (lbs).....: 50,000  
D.O.T. LABEL.....: NOBIN Non-Hazardous D.O.T. PLACARD.....: #8  
BULK CLASS.....: N/A PACKAGE CLASS.....: 55  
MISCELLANEOUS: Export Classification, organic surface active agents (other than soap), washing preparations and cleaning preparations, schedule B # 3402.90.5030.

## 15. REGULATORY INFORMATION

EEC Symbols and Indications of Danger: Corrosive (C)  
R-Phrases: R36/38 - Irritating to eyes and skin. S-Phrases: S24/25 - Avoid contact with skin and eyes.  
WHMIS Hazard Symbols: Class E - Corrosive Material  
Canadian Disclosure List - Potassium Hydroxide (1310-58-3);  
CERCLA Hazardous Substances - Potassium Hydroxide (1310-58-3) -- RQ 1000 lb  
MISCELLANEOUS INFORMATION: This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS).

## 16. OTHER INFORMATION

Prepared By.....: Donato Polignone PRD Number.....: PVK000 (Official Copy)  
Approval Date.....: October 1, 2006 Supersedes Date...: New

ADDITIONAL INFORMATION: The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.

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END OF MSDS