

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: AquaKlean EF 145 Product Number: GPC145
Chemical Family: Highly Alkaline Liquid Cleaner & Aluminum Etchant CAS Number: Blend

Company Identification

NuGeneration Technologies, LLC www.nugentec.com
1155 Park Avenue, Emeryville, CA 94608 USA
1-888-996-8436 (For product information)
1-510-962-9551 (NuGenTec Safe-T-Chem: For emergencies)

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% AquaKlean EF 145 CONTAINING: HAZARDOUS AND/OR REGULATED COMPONENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
EDTA	< 2.0 %	64-02-8
SODIUM HYDROXIDE	< 20.0 %	1310-73-2

(See Section 8 for exposure guidelines) (See Section 15 for regulatory information)

COMPOSITION COMMENT: This product is Biodegradable.

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.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
CAUTION!
ALKALINE CLEANING COMPOUND, CORROSIVE LIQUID.
Causes severe burns to skin and eyes.

HMIS Rating - Health: 2, Flammability: 0, Reactivity: 1, Personal Protection Index: C

NFPA Rating - Health: 2, Flammability: 0, Reactivity: 1, Special Hazard: Corrosive

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

POTENTIAL HEALTH EFFECTS

EYE: Contact causes severe eye irritation and or burns.

SKIN: Contact may cause skin irritation and possible burns.

INHALATION: Not expected to be a problem under normal use.

INGESTION: Ingestion is not considered a potential route of exposure. Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

SIGNS AND SYMPTOMS OF EXPOSURE: If exposed areas are flushed promptly and thoroughly with water, there should be little or no harm. This product is completely soluble in water.

REPRODUCTIVE HAZARDS: No reproductive hazards.

CARCINOGENICITY INFORMATION: No known cancer hazards.

MISCELLANEOUS: Poses little or no immediate hazard.

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.

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: Not an expected route of exposure. Remove from area of exposure. Seek immediate medical attention if respiratory irritation or distress continues.

INGESTION FIRST AID: Get medical attention immediately. Do not induce vomiting.

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

COC Flash Point: None TCC Flash Point: None Autoignition Temperature: None

FLAMMABLE LIMITS IN AIR LEL: None UEL: None

EXTINGUISHING MEDIA: Will not burn.

FIRE & EXPLOSION HAZARDS: No known unusual hazards in a fire/explosion situation.

FIRE FIGHTING INSTRUCTIONS: Avoid breathing decomposition products.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL): Protect skin and eyes from exposure.

INITIAL CONTAINMENT: Wash area to prevent slipping.

LARGE SPILLS PROCEDURE: Flush spill area with water to wastewater treatment system.

SMALL SPILLS PROCEDURE: Wash with water.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE: Minimum: 10°C (50°F) Maximum: 48.9°C (120.0°F)

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

HANDLING (PHYSICAL ASPECTS): Keep container closed to avoid contamination.

MISCELLANEOUS: Do not stack over two pallets high.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special ventilation requirements.

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.

RESPIRATORY PROTECTION REQUIREMENTS: Under normal use conditions, with adequate ventilation, no special handling equipment is required.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Light Amber
ODOR: Mild
BOILING POINT: >212°F
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY: 1.247 g/ml (Water = 1)
BULK DENSITY: 10.4 lbs/gallon
MELTING/FREEZING POINT: 50°F (freeze point, remix if freezing occurs)
pH: 13.5
% VOLATILES: Zero %
VOLATILE ORGANIC COMPOUNDS (VOC): 0 g/l
pH (5% B.V.): 13.1

10. STABILITY AND REACTIVITY

STABILITY: Stable.
POLYMERIZATION: Hazardous polymerization will not occur.
DECOMPOSITION: Decomposition will not occur if handled and stored properly.
CONDITIONS TO AVOID: This material is safe under normal storage and handling conditions.

11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: 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: Clean out containers prior to disposal.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: AquaKlean EF 145
D.O.T. SHIPPING NAME: Corrosive Liquid
TECHNICAL SHIPPING NAME: Corrosive Liquid, NOS (Sodium Hydroxide)
D.O.T. HAZARD CLASS: Corrosive
UN NUMBER: 1760 Corrosive Liquid, n.o.s.
PRODUCT RQ (LBS): 5,000
D.O.T. LABEL: Corrosive Liquid, Packing Group III
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: None

WHMIS Hazard Symbols: None

CERCLA Hazardous Substances Sodium Hydroxide (1310-73-2) -- RQ 1000 lb

SC Toxic Air Pollutants List Sodium Hydroxide (1310-73-2)

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
APPROVAL DATE: August 15, 2012

PRD NUMBER: GPC145 (Official Copy)
SUPERCEDES DATE: October 10, 2011

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