UNI-KLEEN LOW/HIGH TEMP MACHINE DETERGENT

UNI-KEM CHEMICALS, INC

802 Wm. Leigh Drive
Tullytown, PA 19007
Phone - 800-752-1120
Fax - 215-269-9855

GENERAL DESCRIPTION: UNI-KLEEN LOW/HIGH TEMP DETERGENT is specially formulated to produce clean and sparkling tableware in Low/High Temperature dishmachines. **UNI-KLEEN LOW/HIGH TEMP DETERGENT** attains excellent results in light to medium soil conditions where soft to medium water hardness conditions are available. **UNI-KLEEN LOW/HIGH TEMP DETERGENT** is dispensed directly from the shipping container, thus eliminating messy spills and unsightly dish areas. This unique product is formulated to be dispensed through an automated injector system, assuring the lowest possible use cost. **UNI-KLEEN LOW/HIGH TEMP DETERGENT** can be used to wash soft metals such as aluminum or pewter.

PHYSICAL PROPERTIES:

Chemical Composition	Alkaline base; soil and mineral sequestering agents for water conditioning; metal and glaze protectants.
Appearance	Clear red liquid
pH	13.2
pH of 1% solution	11.9
Specific gravity	1.24 (10.3 lbs/gal)
Solubility	Complete and Fast
Stability	1 Year @ Ambient Temperature
Caustic	Present
Foaming	Low
Biodegradable	Yes, all surfactants
Metal Safety	Safe with soft metals
Water Hardness Tolerance	9 Grains Per Gallon at 0.3% 6 Grains Per Gallon at 0.2% 3 Grains Per Gallon at 0.1%

RECOMMENDED RANGE OF USE CONCENTRATIONS:
Titrate with Institutional Alkalinity Test Kit. Use range is 0.1% to 0.3%, or 2 to 6 drops (each drop = .05%) using a 10 ml sample and 3 drops of Phenolphthalein Indicator. Select actual use concentration to handle water hardness and soil load.
NOTE: To properly titrate, adjust for raw water alkalinity by titrating H2O just as you would a detergent solution. Subtract that number from total drop titration to derive intended detergent concentration.
Example: Raw water titrates 2 drops, total drop titration equals 6 drops. (6 - 2 = 4 x .05% = 0.2%)

HANDLING PRECAUTIONS:

CAUTION: WARNING
KEEP OUT OF REACH OF CHILDREN.

Highly alkaline liquid. Contact with skin and eyes may cause severe irritation. Harmful if swallowed. Flood with water if splashed in eyes. Flush with water for 15 minutes and consult physician immediately. If ingested, drink large amounts of milk, milk of magnesia or gelatin, or if these are not available, drink large amounts of water. DO NOT induce vomiting. Obtain prompt medical attention.

PACKAGING:
5 gal plastic pail - 52 lbs net / 55 lbs gross
4x1 gal case- 36 lbs net/ 38 lbs gross

CODE: UKLHT

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

SAFETY DATA SHEET

Issuing Date 18-Apr-2013 **Revision Date** 18-Apr-2013 **Revision Number** 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name **Uni-Kleen Low HighTemp Detergent**

Other means of identification

Product Code(s) **UKLHT**

UN-Number UN1760

Synonyms UKLHT

Recommended use of the chemical and restrictions on use

Recommended Use Institutional dish machine detergent

Uses advised against No information available

Supplier's details

Supplier Address
Uni-Kem Chemicals, Inc.
802 Wm. Leigh Drive
Tullytown, PA
19007
TEL: 800-752-1120

Emergency telephone number

Emergency Telephone Number CHEM-TEL, INC.
24 Hour Emergency Contact 1-800-255-3924

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 1 Subcategory 1A
Serious Eye Damage/Eye Irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word **Danger**

Hazard Statements

• Causes severe skin burns and eye damage

Appearance Clear **Physical State** Liquid. **Odor** No information available

Precautionary Statements

Prevention

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection

General Advice

- Immediately call a POISON CENTER or doctor/physician

Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician.

Skin

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Ingestion

- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage

- Store locked up

Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

Harmful to aquatic life with long lasting effects

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms UKLHT

Chemical Name	CAS-No	Weight %	Trade secret
Sodium hydroxide	1310-73-2	10-20	*

**The exact percentage (concentration) of composition has been withheld as a trade secret.*

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

Ingestion Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None

Specific Hazards Arising from the Chemical

No information available

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Stop leak if you can do it without risk. If spilled, take caution, as material can cause surfaces to become very slippery.

Environmental Precautions

Environmental Precautions Dispose of contents/container to an approved waste disposal plant.

Methods and materials for containment and cleaning up

Methods for Containment Stop leak if you can do it without risk

Methods for Cleaning Up Contain spill, dilute with water and neutralize as required. Wash away small spills with plenty of water. Large spillage: Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Do not take internally. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature. Keep from freezing. Keep container closed when not in use.

Incompatible Products Strong oxidizing agents. Aluminium. Soft metals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3 (vacated) Ceiling: 2 mg/m^3	IDLH: 10 mg/m^3 Ceiling: 2 mg/m^3

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical resistant goggles must be worn. Face-shield.
Skin and Body Protection Rubber boots. Apron. Rubber gloves. Neoprene gloves.
Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid
Appearance Clear
Odor No information available
Odor Threshold No information available

Property	Values	Remarks/ - Method
pH	12.8	(4 % solution)
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	> 100 °C / > 212 °F	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	1.22	None known

Water Solubility	100%	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	5 cps	None known

Flammable Properties Not flammable

Explosive Properties No data available
Oxidizing Properties No data available

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.
Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Spills or careless handling. Incompatible products.

Incompatible materials

Strong oxidizing agents. Aluminium. Soft metals.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye Contact	Causes serious eye damage.
Skin Contact	Causes severe skin burns.
Ingestion	May be harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hydroxide	-	1350 mg/kg (Rabbit)	-
			-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.
Mutagenic Effects No information available.
Carcinogenicity Contains no ingredient listed as a carcinogen.

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product
The following values are calculated based on chapter 3.1 of the GHS document:
LD50 Oral 25000 mg/kg; Acute toxicity estimate
LD50 Dermal 3034 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Sodium hydroxide		LC50 96 h: = 45.4 mg/L static (Oncorhynchus mykiss)		

Persistence and Degradability No information available.

Bioaccumulation No information available.

Chemical Name	Log Pow

Other Adverse Effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations

Contaminated Packaging Do not re-use empty containers.

Chemical Name	California Hazardous Waste
Sodium hydroxide	Toxic Corrosive

14. TRANSPORT INFORMATION

DOT
UN-Number UN1760
Proper shipping name Corrosive liquids, n.o.s.
Hazard Class 8
Packing Group II
Reportable Quantity (RQ) Sodium hydroxide: RQ kg= 1020.45, Potassium hydroxide: RQ kg= 22700.00
Description UN1760, Corrosive liquids, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II, RQ
Emergency Response Guide Number 154

TDG

UN-Number	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II

UN-Number	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II

ICAO

UN-Number	UN1760
Proper shipping name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
Description	UN1760, Corrosive liquid, n.o.s., 8, II

IATA

UN-Number	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
ERG Code	8L
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II

IMDG/IMO

UN-Number	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
EmS No.	F-A, S-B
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II

RID

UN-Number	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
Classification Code	C9
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II

ADR

UN-Number	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
Classification Code	C9
Tunnel Restriction Code	(E)
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II, (E)
ADR/RID-Labels	8

ADN

Proper Shipping Name	Corrosive liquid, n.o.s.
Hazard Class	8
Packing Group	II
Classification Code	C9

Special Provisions	274
Description	UN1760, Corrosive liquid, n.o.s. (Sodium hydroxide, Potassium hydroxide), 8, II
Limited Quantity	1 L

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
NDSL	Complies
KECL	Complies
PICCS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hydroxide	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Sodium hydroxide	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	**Health Hazard** 3	**Flammability** 0	**Instability** 1	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 3	**Flammability** 0	**Physical Hazard** 1	**Personal Protection** X

Issuing Date	18-Apr-2013
Revision Date	18-Apr-2013
Revision Note	Initial Release.

General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet