SAFETY DATA SHEET

1. Product and company identification

Product Name Hard Water Dish Machine Detergent - DH

UN/ID No. UN1814, Potassium Hydroxide Solution, Class 8, PGII

Recommended use of the chemical

Recommended Use Low Temp Dish Machine Detergent

Supplier:

Print date: June 21, 2018

Responsible name: **HD Chem**
707 W. 16th St., Long Beach, CA 90813
(888) 443-2436

In case of emergency: **Call (888) 443-2436**

Product type: Mixture

2. Hazards identification

Appearance: Red Liquid **Physical State:** Liquid **Odor:** No odor

Signal Word: **Danger**

Pictograms:

Hazard Statement: Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary Statements – Preventions

Do not breathe mist or vapor. Wash thoroughly after handling Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area
Do not breath dust/fume/gas/mist/vapors/spray
Wear eye protection/face protection protective. Wear gloves/protective clothing/eye protection/face protection.

Precautionary Statements – Response

IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing immediately call a poison center/doctor. Wash contaminated clothing before reuse. If swallowed: Rinse mouth. Do NOT induce vomiting. Call poison center or doctor immediately. If on skin (or hair): Take off immediately all

contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comforatable for breathing.

GENERAL ADVICE: In case of accident or if you feel unwell, seek medical advice immediately. (show the label or SDS where possible.

Precautionary Statements – Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements –Disposal
Dispose of contents/container in accordance with local/federal/regional/national/international regulations.

Other Hazards
Harmful to aquatic life

3. Composition/information on ingredients

Name	CAS number	%
Potassium Hydroxide	1310-58-3	20%

4. First aid measures

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Call a physician or poison control center immediately.

Skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Inhalation: Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion: Call physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

Note to physician Most important symptoms/effects, acute and delayed.
Burning pain and severe corrosive skin damage. Nausea, vomiting, Diarrhea. Causes serious eye damage. Symptoms may include stinging, tearing redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing.

Indication of immediate medical attention and special treatment needed Provide general supportive measure and treat symptomatically. Chemical burns. Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Water fog, foam, Dry chemical powder, Carbon dioxide (CO2).

Unsuitable Extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions:	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions:	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods for cleaning up	Dike contain liquid area using protective clothing, absorb with sand or other absorbent. Pick up and place in suitable, closed container for disposal. Dispose of all waste and cleanup materials in accordance with regulations.

7. Handling and storage

Handling:	See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.
Storage	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep away from incompatible materials (see section 10 for incompatibilities).

8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Engineering Controls	Apply technical measures to comply with the occupational exposure limits. Local exhaust ventilation recommended. Eye wash stations. Showers and washing facilities accessible to areas of use and handling.

Individual-protection measures, such as personal protective equipment

Eye/Face Protection	Wear chemical anti-splash safety glasses or goggles and a face shield.
Skin and Body Protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. **Other:** Wear appropriate chemical resistant clothing
Respiratory Protection	Provide local exhaust, preferably mechanical. In case of insufficient ventilation, wear suitable respiratory equipment. If exposure levels are excessive, use an approved respirator
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General Hygiene considerations	Keep away from food and drink. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash face, hands an any exposed skin thoroughly after handling. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Physical state	Liquid
Flash Point	>200^0 F.
Color	Red Liquid
pH	13
Vapor Pressure (mm GHz)	66 MMHG @ 20^0 c Approx. Water
Specific Gravity (H20=1)	1.21
Vapor Density	23
Evaporation Rate (N-Butyl Acetate) =1	N/E
Solubility in Water	100%
Reactivity in Water	None
VOC	8.97gr/ct
Boiling point	< 212^0 F

10. Stability reactivity

Stability	Stable
Hazardous polymerization	Will not Occur
Conditions to avoid	Contact with strong mineral acids, metals amphoteric metals: Strong Acids
Materials to avoid	Amphoteric Metals: Strong Acids
Hazardous decomposition	None

11. Toxicological information

Acute toxicity:

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – rat 273 mg/kg

Carcinogenicity:

No components of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Signs & Symptoms of Exposure:

Skin	Causes severe skin burns.
Eyes	Causes serious eye damage.
Respiratory	May cause irritation to the respiratory system. Irritation, coughing, wheezing. Prolonged inhalation may be harmful.
Ingestion	Causes digestive tract burns. Harmful is swallowed.

Chronic Toxicity:

May cause damage to the following organs: upper respiratory tract, skin, eyes.

12. Ecological information

Environmental effects:

Harmful to aquatic life

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a license waste contactor. Disposal of this product, solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contract with soil, waterways, drains and sewers.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSUSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Note: Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

When shipped in containers of 32 oz. or less this material may be reclassified in accordance with DOT regulations 49CFR173.154 as:

Limited Quantity

Regulatory	UN number	Proper shipping name	Classes	PG*	Additional information
DOT Classification	**UN1814**	**Potassium Hydroxide Solution**	**8**	**II**	32 oz Bottles, ORM-D-Limited Quantity

***PG: Packing group**

15. Regulatory information

International Inventories
Not determined

California Proposition 65:
This product does not contain any Proposition 65 chemicals.

16. Other information

HMIS	Health	Flammability	Reactivity	Personal Protection
	2	**0**	**1**	**C**

Indicates information that has changed from previously issued version.

Disclaimer

The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and in not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet