



## 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. 16<sup>th</sup> 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 comfortable 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

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### 3. Composition/information on ingredients

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<u>Name</u>	<u>CAS number</u>	<u>%</u>
Potassium Hydroxide	1310-58-3	20%

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### 4. First aid measures

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<b>Eye contact:</b>	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.
<b>Skin contact:</b>	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.
<b>Inhalation:</b>	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.
<b>Ingestion:</b>	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.
<b>Note to physician</b>	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.
<b>Indication of immediate medical attention and special treatment needed</b>	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.
<b>General information</b>	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.

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### 5. Fire-fighting measures

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<b>Suitable extinguishing media</b>	Water fog, foam, Dry chemical powder, Carbon dioxide (CO2).
<b>Unsuitable Extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

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## 6. Accidental release measures

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<b>Personal precautions:</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions:</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b><u>Methods for cleaning up</u></b>	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.

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## 7. Handling and storage

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<b>Handling:</b>	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.
<b>Storage</b>	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).

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## 8. Exposure controls/personal protection

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### **Consult local authorities for acceptable exposure limits.**

<b>Engineering Controls</b>	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.
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### **Individual-protection measures, such as personal protective equipment**

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

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## 9. Physical and chemical properties

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

## 10. Stability reactivity

<b>Stability</b>	Stable
<b>Hazardous polymerization</b>	Will not Occur
<b>Conditions to avoid</b>	Contact with strong mineral acids, metals amphoteric metals: Strong Acids
<b>Materials to avoid</b>	Amphoteric Metals: Strong Acids
<b>Hazardous decomposition</b>	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

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### 13. Disposal considerations

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**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 contact with soil, waterways, drains and sewers.

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

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### 14. Transport information

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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

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### 15. Regulatory information

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**International Inventories**

Not determined

**California Proposition 65:**

This product does not contain any Proposition 65 chemicals.

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### 16. Other information

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**HMS**

**Health**  
2

**Flammability**  
0

**Reactivity**  
1

**Personal Protection**  
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**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