

**MATERIAL SAFETY DATA SHEET**

**SECTION 1 PRODUCT IDENTIFICATION**

PRODUCT NAME:	<b>HWD DISH DETERGENT</b>	Emergency TEL: CANUTEC
PRODUCT USE:	Machine Dishwasher Liquid	(613) 996-6666
MANUFACTURERS NAME	NORA SYSTEMS INC.	
ADDRESS:	7807 Argyll Road, Edmonton, Alberta T6C 4A9	
SUPPLIER:	NORA SYSTEMS INC.	
WHMIS CLASSIFICATION:	D1B- Toxic      E-Corrosive	
TDG CLASSIFICATION:	Corrosive liquid, Class 8 (9.2) UN 1814 PG II	

**SECTION II HAZARDOUS INGREDIENTS**

<b>MATERIAL</b>	<b>%</b>	<b>CAS NUMBER</b>	<b>TOXITY DATA: LD50, LC50</b>
Potassium Hydroxide	15-40	1310-58-3	LD50 (Oral, Rat) 365 mg/kg
Sodium Nitrilotriacetate	10-30	18662-53-8	LD50 (Oral, Rat) 4200 mg/kg

**SECTION III PHYSICAL DATA**

PHYSICAL STATE	<b>liquid</b>	VAPOUR PRESSURE:(mmHg)	<b>2mm Hg at 20 Deg. C</b>
COLOUR:	<b>Red</b>	VAPOUR DENSITY:(AIR=1)	<b>n.av.</b>
ODOUR:	<b>Odourless</b>	EVAPORATION RATE:	<b>n.av.</b>
BOILING POINT:	<b>100 Deg. C.</b>	SPECIFIC GRAVITY:	<b>1.25</b>
FREEZING POINT:	<b>-5 Deg. C.</b>	pH:	<b>14</b>
SOLUBILITY:	<b>100%</b>	ODOUR THRESHHOLD:	<b>n.av.</b>
		COEFFICIENT OF WATER/OIL:	<b>n.av.</b>

**SECTION IV FIRE AND EXPLOSION DATA**

FLASH POINT (TEST METHOD):	<b>n.av.</b>
FLAMMABILITY LIMITS IN AIR, % BY VOLUME: LOWER:	<b>n.av.</b>
	UPPER: <b>n.av.</b>
AUTO- IGNITION TEMPERATURE:	<b>n.av.</b>
MEANS OF EXTINCTION:	<b>as for surrounding fire</b>
HAZARDOUS COMBUSION PRODUCTS:	<b>n.av.</b>
SPECIAL FIREFIGHTING PROCEDURES:	<b>As for surrounding fire</b>
EXPLOSION DATA-SENSIVITY TO MECHANICAL IMPACT:	<b>n.av.</b>
EXPLOSION DATA-SENSIVITY TO STATIC DISCHARGE:	<b>n.av.</b>

**SECTION V REACTIVITY DATA**

CHEMICAL STABILITY:	<b>Stable under normal conditions.</b>
CHEMICAL INCOMPATABILITY (MATERIAL & CONDITIONS):	<b>Oxidizing material, acid and others (chlorinated hydrocarbons , ammonia, aluminum, tin, lead and zinc).</b>
HAZARDEOUS DECOMPOSITION PRODUCTS:	<b>Hydrogen (from contact with aluminum and other metals).</b>

**SECTION VI TOXIOLOGICAL PROPERTIES**

ROUTE OF ENTRY-	SKIN CONTACT:	<b>X</b>	EYE CONTACT:	<b>X</b>
	INGESTION:	<b>X</b>	INHALATION:	<b>X</b>

EFFECTS OF EXPOSURE- ACUTE AND CHRONIC:

Inhalation- **May cause irritation to respiratory tract and lungs.**

Skin- **May cause severe irritation to the mucous membranes of the eyes. Damage may be delayed.**

Eyes- **May cause severe irritation to the mucous membranes of the eyes. May cause ulceration of the eye. Glaucoma, cataracts and permanent blindness may occur.**

Ingestion- **May cause burning in mouth and esophagus, nausea, vomiting, abdominal pain and diarrhea. Perforation of gastrointestinal tract may occur. May be fatal.**

EXPOSURE LIMITS: **Potassium Hydroxide-TWA: 2 mg/m<sup>3</sup> CEIL: 2mg/ m<sup>3</sup>**

SENSITIZATION TO PRODUCT: **n.av.**

CARCINODENICITY: **n.av.**

REPRODUCTIVE TOXICITY: **n.av.**

TERATOGENICITY: **n.av.**

MUTAGENICITY: **n.av.**

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: **None known.**

# NORA SYSTEMS INC.

HWD Dish Detergent

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### SECTION VII PERSONAL PROTECTIVE EQUIPMENT

GLOVES:	Rubber, vinyl or neoprene gloves should be worn.
EYES:	Chemical workers goggles should be worn.
FOOTWEAR:	Rubber boots should be worn.
RESPIRATOR:	A mask should be worn.
CLOTHING:	Coveralls should be worn.

### SECTION VIII PREVENTIVE MEASURES

STORAGE REQUIREMENTS:	Store in a cool, dry area away from incompatibles.
SHIPPING INFORMATION:	Do not expose to extreme temperatures.
LEAK AND SPILLAGE PROCEDURES:	With large spill, dyke for later disposal. Neutralize with diluted acid like hydrochloric or sulfuric acid. Minor spills can be neutralized and flushed with plenty of water.
HANDLING PROCEDURES:	When diluting, always add product slowly to water to prevent boiling and splattering.
WASTE DISPOSAL:	Waste products should not be discharged into sewers or streams. It should be first neutralized with diluted acid and then discharged according to federal, local and provincial regulations.
SPECIAL ENGINEERING CONTROLS:	Use under well-ventilated conditions with access to eyewash, safety shower and safety equipment.

### SECTION IX FIRST AID MEASURE

EYES:	Flush with plenty of water for at least 20 minutes. Get medical attention.
SKIN:	Remove contaminated clothing immediately and flush with water for at least 15 minutes. Get medical help.
INGESTION:	Get medical help immediately. Rinse mouth well with water and give patient large quantities of water or milk to dilute chemical. Do not induce vomiting.
INHALATION:	Remove to fresh air and get medical attention.

### SECTION X PREPARATION INFORMATION

PREPARED BY: TECHNICAL DEPARTMENT

TELEPHONE: 780-448-0145

DATE: JANUARY 2008

**IMPORTANT:** The information presented herein is believed to be accurate and is offered only as a guide. Users should make their own tests to determine the suitability of these products for their own particular purposes. Users assume all risk of use, storage and handling of the product. No warranty, express or implied, is made including, but no limited to, implied warranties of merchantability and fitness for a particular purpose. Nothing contained herein shall be construed as a license to operate under, or recommendation to infringe any patents.

n.av. - Not Available

n.ap- Not applicable