

**MATERIAL SAFETY DATA SHEET**

**SECTION 1 PRODUCT IDENTIFICATION**

|                       |   |                        |
|-----------------------|---|------------------------|
| PRODUCT NAME:         | <b>HD77</b>                                   | Emergency TEL: CANUTEC |
| PRODUCT USE:          | Liquid Laundry Detergent                      | (613) 996-6666         |
| MANUFACTURERS NAME    | NORA SYSTEMS INC.                             |                        |
| ADDRESS:              | 7807 Argyll Road, Edmonton, Alberta T6C 4A9   |                        |
| SUPPLIER:             | NORA SYSTEMS INC.                             |                        |
| WHMIS CLASSIFICATION: | D1B- Poison                                   | D2B-Toxic E-Corrosive  |
| TDG CLASSIFICATION:   | Corrosive liquid, Class 8 (9.2) UN 1814 PG II |                        |

**SECTION II HAZARDOUS INGREDIENTS**

| MATERIAL               | %     | CAS NUMBER | TOXITY DATA: LD50, LC50   |
|------------------------|-------|------------|---------------------------|
| Amphoterge K-2         | 7-13  | Mixture    | n.av.                     |
| Potassium Hydroxide    | 10-30 | 1310-58-3  | LD50 (Oral, Rat) 273 mg   |
| Sodium Nitrotriacetate | 5-10  | 18662-53-8 | LD50 (Oral, Rat) 4.2 g/Kg |
| Kalipol E19            | 3-7   | Mixture    | n.av.                     |

**SECTION III PHYSICAL DATA**

|                 |                         |                           |                 |
|-----------------|-------------------------|---------------------------|-----------------|
| PHYSICAL STATE  | <b>liquid</b>           | VAPOUR PRESSURE:(mmHg)    | <b>n.av.</b>    |
| COLOUR:         | <b>Blue</b>             | VAPOUR DENSITY:(AIR=1)    | <b>n.av.</b>    |
| ODOUR:          | <b>Lemon</b>            | EVAPORATION RATE:         | <b>n.av.</b>    |
| BOILING POINT:  | <b>n.av.</b>            | SPECIFIC GRAVITY:         | <b>1.250</b>    |
| FREEZING POINT: | <b>n.av.</b>            | pH:                       | <b>Alkaline</b> |
| SOLUBILITY:     | <b>Soluble in water</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.ap.</b>                            |
| FLAMMABILITY LIMITS IN AIR, % BY VOLUME: <b>Non-flammable</b> | LOWER: <b>n.ap.</b> UPPER: <b>n.ap.</b> |
| AUTO- IGNITION TEMPERATURE:                                   | <b>n.ap.</b>                            |
| MEANS OF EXTINCTION:  | <b>as for surrounding fire</b>          |
| HAZARDOUS COMBUSTION 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.</b>                     |
| CHEMICAL INCOMPATIBILITY (MATERIAL & CONDITIONS): | <b>Acids, metals.</b>              |
| HAZARDEOUS DECOMPOSITION PRODUCTS:                | <b>Carbon and nitrogen oxides.</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 severe irritation to respiratory tract.**  
 Skin- **Corrosive. May cause burns.**  
 Eyes-**Corrosive. May cause damage to eye tissue.**  
 Ingestion-**Can be fatal if ingested.**

EXPOSURE LIMITS: **Potassium Hydroxide-TWA: 2 mg/m³ CEIL: 2mg/ m³ from ACGIH**

SENSITIZATION TO PRODUCT: **n.av.**  
 CARCINODENICITY: **Classified 2B(Possible for human) by IARC**  
 REPRODUCTIVE TOXICITY: **n.av.**  
 TERATOGENICITY: **n.av.**  
 MUTAGENICITY: **n.av.**

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TOXICOLOGICALLY SYNERGISTIC PRODUCTS: **None known.**

**SECTION VII PERSONAL PROTECTIVE EQUIPMENT**

GLOVES: **Rubber gloves.**  
EYES: **Splash goggles.**  
FOOTWEAR: **Not required.**  
RESPIRATOR: **Not required.**  
CLOTHING: **Coveralls or long sleeved clothing.**

**SECTION VIII PREVENTIVE MEASURES**

STORAGE REQUIRMENTS: **Store in a cool, dry place away from incompatibles.**  
SHIPPING INFORMATION: **Do not expose to extreme temperatures.**  
LEAK AND SPILLAGE PROCEDURES: **Contain and absorb spill with dry, inert material.**  
HANDLING PROCEDURES: **Keep container closed when not in use.**  
WASTE DISPOSAL: **In accordance with government regulations.**  
SPECIAL ENGINEERING CONTROLS: **Use in area with good ventilation and access to safety equipment.**

**SECTION IX FIRST AID MEASURE**

EYES: **Flush with running water for 15 minutes. If irritation persists, seek medical help.**  
SKIN: **Flush area with plenty of water.**  
INGESTION: **Drink plenty of milk or water. DO NOT induce vomiting. Get medical help.**  
INHALATION: **Remove to fresh air.**

**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