SECTION I CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER:

BDH INC.
350 EVANS AVENUE
TORONTO, ONTARIO
CANADA, M8Z 1K5

INFORMATION PHONE NO.: 416-255-8521
HOURS: MON. TO FRI. (0930 - 1630)
CHEMISTRY TRANSPORTATION EMERGENCY CENTER
CHEMISTRY: 1-800-424-9900
PRODUCT NAME: POTASSIUM HYDROXIDE, LON, 10% W/V, LON FCC
CATALOGUE NUMBER(S): VW3212, VW3907, BDH3118, VW3726, VW5827
CHEMICAL NAME/OTHER NAME: POTASSIUM HYDROXIDE, LON, 10% W/V, LON FCC
CHEMICAL FORMULA: KOH, H2O
CHEMICAL FAMILY: ALKALI SOLUTION

SECTION II COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO.</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>% (W/V)</th>
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<tbody>
<tr>
<td>POTASSIUM HYDROXIDE</td>
<td>1310-58-3</td>
<td>2 MG/M3</td>
<td>2 MG/M3</td>
<td>5.5-10</td>
</tr>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
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SECTION III HAZARDS IDENTIFICATION

APPEARANCE: CLEAR, COLORLESS LIQUID; ODORLESS

******************************************************************************
** EMERGENCY OVERVIEW **********************************************************
******************************************************************************
*
CAUSES BURNS
*
HARMFUL IF SWALLOWED
*

******************************************************************************

POTENTIAL HEALTH EFFECTS (ACUTE & CHRONIC)

SYMPTOMS OF EXPOSURE: HARMFUL IF SWALLOWED. CONTACT WITH THE EYES CAUSES BURNS
MEDICAL CONDITION AGGRAVATED BY EXPOSURE: NONE IDENTIFIED
ROUTES OF ENTRY: INHALATION, INGESTION OR SKIN CONTACT
CARCINOGENICITY: THIS MATERIAL IS NOT LISTED (IARC, NTP, OSHA) AS A CANCER CAUSING AGENT.

(REFER TO LAST PAGE FOR DISCLAIMER)
SECTION IV FIRST AID MEASURES

EYE: IN CASE OF EYE CONTACT, FLUSH WITH PLENTY OF WATER FOR AT LEAST MINUTES WHILE HOLDING THE EYELIDS OPEN. HAVE EYES EXAMINED BY MEDICAL PERSONNEL.

SKIN: IN CASE OF SKIN CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.

INGESTION: IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE VICTIM A GLASS OF WATER OR MILK. CALL A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, TRAINED PERSONNEL SHOULD BEGIN ARTIFICIAL RESPIRATION. SEEK MEDICAL ATTENTION.

SECTION V FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATION: NONCOMBUSTIBLE EXTINGUISHING MEDIA: USE AN EXTINGUISHER APPROPRIATE TO THE SURROUNDING MATERIAL THAT IS BURNING.
FLASH POINT(F)/METHOD: NOT APPLICABLE
FLAME EXPLOSION HAZARD: CAN REACT WITH CERTAIN METALS (AL, ZN, SN) TO RELEASE HYDROGEN GAS
UPPER FLAMMABLE LIMIT (%): NOT APPLICABLE
LOWER FLAMMABLE LIMIT (%): NOT APPLICABLE
IGNITION TEMPERATURE: NOT APPLICABLE
FIREFIGHTING PROCEDURES: FIREFIGHTERS SHOULD WEAR A SELF CONTAINED BREATHING APPARATUS.
HAZARDOUS COMBUSTION PRODUCTS: NONE IDENTIFIED
SENSITIVITY TO STATIC DISCHARGE: NO
SENSITIVITY TO MECHANICAL IMPACT: NO

SECTION VI ACCIDENTAL RELEASE MEASURES

LEAK OR SPILL CLEANUP: EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL. WEAR SUITABLE PROTECTIVE EQUIPMENT LISTED IN EXPOSURE CONTROLS/PERSONAL PROTECTION. CONTAIN THE RELEASE AND ELIMINATE ITS SOURCE, IF THIS CAN BE DONE WITHOUT RISK. TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL AS DESCRIBED UNDER DISPOSAL. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REPORTING RELEASES. REFER TO REGULATORY INFORMATION FOR REPORTABLE QUANTITY AND OTHER REGULATORY DATA.

(REFER TO LAST PAGE FOR DISCLAIMER)
SECTION VII HANDLING & STORAGE

HANDLING & STORAGE: KEEP CONTAINER CLOSED. STORE IN A COOL, DRY AREA AWAY FROM ACIDS AND METALS. DON NOT BREATHE SOLUTION MIST. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING.

SECTION VIII EXPOSURE CONTROLS/PERSOAL PROTECTION

ENGINEERING CONTROLS: ENGINEERING AND/OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

PERSONAL PROTECTIVE EQUIPMENT

GLOVES: NEOPRENE OR EQUIVALENT
RESPIRATORY PROTECTION: FUME HOOD OR NIOSH/MSHA RESPIRATORS AS APPROPRIATE
EYE PROTECTION: SAFETY GLASSES
CLOTHING: IMPERVIOUS PROTECTIVE CLOTHING SHOULD BE WORN TO PREVENT SKIN CONTACT.

SECTION IX PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE: LIQUID
APPEARANCE: CLEAR, COLORLESS LIQUID
ODOR: ODORLESS
ODOR THRESHOLD: NOT APPLICABLE
VAPOR PRESSURE: NOT AVAILABLE
VAPOR DENSITY: NOT AVAILABLE
SPECIFIC GRAVITY: NOT AVAILABLE
BOILING POINT (°F): NOT AVAILABLE
MELTING POINT (°F): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
PH: 14
SOLUBILITY IN WATER: SOLUBLE
OCTANOYL/WATER PARTITION COEFFICIENT: NOT AVAILABLE
PERCENT VOLATILE BY VOL (%): NOT AVAILABLE
MOLECULAR WEIGHT: 56.11 (POTASSIUM HYDROXIDE)

SECTION X STABILITY & REACTIVITY

CHEMICAL STABILITY: NORMALLY STABLE
CONDITIONS TO AVOID: CONTACT WITH STRONG ACIDS MAY CAUSE A REACTION.
MATERIALS TO AVOID: ACIDS, ZINC, ALUMINUM, TIN, ORGANIC HALOGENS, NITRO COMPOUNDS
HAZARDOUS POLYMERIZATION: DOES NOT OCCUR
HAZARDOUS DECOMPOSITION PRODUCTS: NONE IDENTIFIED

(REFER TO LAST PAGE FOR DISCLAIMER)
SECTION XI TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE: HARMFUL IF SWALLOWED. CONTACT WITH THE EYES CAUSES BURNS. CONTACT WITH THE SKIN MAY RESULT IN IRRITATION OR BURNS.

EFFECTS OF CHRONIC EXPOSURE: NO INFORMATION AVAILABLE

LD50: 273 MG/KG (ORAL-RAT) POTASSIUM HYDROXIDE

LD50: NOT AVAILABLE

IRRITANCY (OAK TEST RESULTS): EYE, RABBIT 1 MG/24H - MODERATE;
SKIN, HUMAN 50 MG/24H - SEVERE POTASSIUM HYDROXIDE

CANCER: THIS MATERIAL IS NOT LISTED (IARC, NTP, OSHA) AS A CANCER CAUSING AGENT.

TERATOGENICITY: NO INFORMATION AVAILABLE

MUTAGENICITY: NO INFORMATION AVAILABLE

REPRODUCTIVE EFFECTS: NO INFORMATION AVAILABLE

SENSITIZATION TO PRODUCT: NO INFORMATION AVAILABLE

TARGET ORGANS: NONE IDENTIFIED

SECTION XII DISPOSAL CONSIDERATIONS

EPA WASTE NUMBER(S): D032
TREATMENT: NEUTRALIZE TO PH 6-9. CONTACT YOUR LOCAL PERMITTED WASTE DISPOSAL SITE (TSO) FOR PERMISSIBLE TREATMENT SITES.
ALWAYS CONTACT A PERMITTED WASTE DIPSOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS

SECTION XIII TRANSPORT INFORMATION

DOT SHIPPING NAME: POTASSIUM HYDROXIDE, SOLUTION
DOT NUMBER (UN): 1814
PACKING GROUP: II
HAZARDOUS CLASS: B

SECTION XIV REGULATORY INFORMATION

TSCA INVENTORY (YES/NO): YES, THIS MATERIAL IS A MIXTURE. THE CAS NUMBERS OF ALL COMPONENTS ARE LISTED ON THE TSCA INVENTORY.

COMPONENT SARA EHS (302) SARA EHS TPQ (LBS) CERCLA RJ (LBS)

POTASSIUM HYDROXIDE - - 1000

(REFER TO LAST PAGE FOR DISCLAIMER)
POTASSIUM HYDROXIDE
WATER

SECTION XV OTHER INFORMATION

NFPA HAZARD RATINGS (0-4)

HEALTH: 3
FLAMMABILITY: 0
REACTIVITY: 0

NFPA SPECIAL WARNINGS: NONE
PREPARATION DATE: DECEMBER 18, 1992
REVISION HISTORY: AUGUST 30, 1993; APRIL 26, 1994; SEPT 16, 1994
JUNE 5, 1995

COMMENTS: NONE
PREPARED BY: TECHNICAL AFFAIRS DEPARTMENT, BDH INC.,
TORONTO, ONTARIO, CANADA
(416) 255-8521

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