

MATERIAL SAFETY DATA SHEET**SECTION 1 CHEMICAL PRODUCT AND COMPANY INFORMATION**

Product Name: Hydro-Balance Hydro-Kleen Concentrate

Product Number(s): H-1101, H-1105, H-1106, H-1155

Product Use: Condenser coil cleaner

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Replaces Aug. 14, 2001

Company Name: North American Research Corporation

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Telephone Numbers: (972) 492-1800, (800) 527-7520, Fax (972) 394-6755

Emergencies: Infotrac (800) 535-5053 (24 hours, everyday)

318015

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200):

	CAS Registry No.	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Potassium Hydroxide	1310-58-3	2 mg/m ³ Ceiling	2 mg/m ³ Ceiling	None known	< 26

SECTION 3 HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

POISON! DANGER! CORROSIVE. CAUSES SEVERE BURNS TO SKIN, EYES, AND OTHER BODY TISSUE. HARMFUL OR FATAL IF SWALLOWED.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Corrosive. May cause permanent damage including blindness.

SKIN CONTACT: Corrosive. May cause permanent damage.

INHALATION: May cause irritation and corrosive effects to the nose, throat, and respiratory tract. Severe injury is usually avoided by self-limiting coughing and sneezing symptoms.

INGESTION: Corrosive. May cause burns to mouth, throat, and stomach.

CHRONIC EXPOSURE: No known chronic effects.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known other than existing skin disorders.

CARCINOGENICITY: NTP? No IARC Monographs? No OSHA Regulated? No

SECTION 4 FIRST-AID MEASURES

EYE CONTACT: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention immediately.

SKIN CONTACT: Flush immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

INHALATION: If breathing is difficult: Remove to fresh air. Get medical attention immediately.

INGESTION: Do not induce vomiting! Immediately drink large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5 FIRE-FIGHTING MEASURES

FLASHPOINT: Not flammable METHOD: Not applicable

FLAMMABLE LIMITS: LEL: Not applicable UEL: Not applicable AUTOIGNITION TEMP: Not applicable

GENERAL HAZARD: Not considered to be a fire hazard. Will react with some metals, eg. Aluminum, tin, zinc to form flammable hydrogen gas.

FIRE EXTINGUISHING MEDIA: Use means suitable for extinguishing surrounding fire. Water spray may be used to keep fire-exposed containers cool.

SPECIAL INFORMATION: Corrosive material. See sections 8 and 10.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Put on appropriate personal protective equipment.

ENVIRONMENTAL PRECAUTIONS AND CLEAN-UP:

Small spills: Mop up or soak up with rags and flush with water.

In the event of major spillage: Use appropriate containment consistent with good industrial or environmental practice. Recover as much as possible. Pump, sweep or scrape up the remaining material and place in suitable clean containers for disposal by proper methods. Use a water rinse for final clean-up.

SECTION 7 STORAGE AND HANDLING

HANDLING: Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid breathing vapors or spray mists. Wash thoroughly after handling. Remove and wash contaminated clothing and footwear before reuse. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. **FOR INDUSTRIAL USE ONLY.**

STORAGE: Keep tightly closed in original container. Store in a cool, dry, ventilated area. Protect against physical damage. Tip: For transport on service truck, place container inside of plastic pail and immobilize pail.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS: Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

PERSONAL PROTECTION:

EYES: Chemical splash goggles.

HANDS: Chemical resistant gloves; rubber, neoprene, or other impervious material.

RESPIRATORY: If mists/vapors are not adequately controlled by ventilation, use appropriate respiratory protection to avoid over exposure. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

FEET: Chemical resistant boots; rubber, neoprene, or other impervious material.

BODY: If major exposure is possible, wear suitable, impervious protective clothing.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Yellowish, golden liquid. Bland odor.

SPECIFIC GRAVITY: 1.26

VAPOR PRESSURE: Not determined

VAPOR DENSITY: Not determined

SOLUBILITY IN WATER: Complete

pH: 14

BOILING POINT: 212°F

FREEZING / MELTING POINT: Not determined

EVAPORATION RATE (Butyl Acetate = 1): Not determined

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable under ordinary conditions of use and storage. **HAZARDOUS POLYMERIZATION:** Will not occur.

INCOMPATIBILITY (Materials to Avoid): Reactive with oxidizing agents, acids, chlorinated hydrocarbons, acetone. Will react with some metals, e.g., aluminum, tin, zinc, to form flammable hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS: When exposed to fire, produces normal products of combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

For Potassium Hydroxide (1310-58-3): Oral LD50 (rat): 365 mg/kg. Primary skin irritation: (rabbit, 24hr) severe. Primary eye irritation: (rabbit, 24hr) severe.

SECTION 12 ECOLOGICAL INFORMATION

For Potassium Hydroxide (1310-58-3): LC50 (96hr) Fathead minnow, 45% KOH solution = 179 mg/L.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal of unused product is regulated under environmental and transportation laws as a corrosive waste. Dispose of container and unused contents in accordance with federal, state, and local requirements.

SECTION 14 TRANSPORT INFORMATION

U.S. Department of Transportation: Potassium Hydroxide Solution, 8, UN1814, PG II

SECTION 15 REGULATORY INFORMATION

TSCA: All ingredients of this product are listed or are excluded from listing on the U.S. TSCA chemical substances inventory.

CERCLA: Potassium Hydroxide (1310-58-3); RQ 1000 lbs.

SARA TITLE III: Section 311/312 Hazard Category: Acute: Yes Chronic: No Fire: No Pressure: No Reactive Hazard: Yes

Section 313 Reportable Ingredients: None

SECTION 16 OTHER INFORMATION

NFPA RATING: Health – 3, Flammability – 0, Reactivity – 1

HMIS® RATING: Health – 3, Flammability – 0, Reactivity – 2

HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

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