



# MATERIAL SAFETY DATA SHEET

## I. PRODUCT AND COMPANY INFORMATION

**TRADE NAME:** Refresh  
**CHEMICAL FAMILY:** Liquid Laundry Detergent

Date Prepared: 10/18/2007  
**Version: 2**

**HCS (Division of Washing Systems, LLC)**  
5579 Spellmire Dr.  
Cincinnati, OH 45246  
513-870-4830  
**EMERGENCY CONTACT: CHEMTREC (800-424-9300)**

## II. HAZARDOUS INGREDIENTS

The materials listed in this data sheet are classified as **HAZARDOUS** in accordance with the definition set forth by the Occupational Safety and Health Administration in 29 CFR 1910.1200.

<u>CHEMICAL NAME</u>	<u>COMMON NAME</u>	<u>CAS Number</u>	<u>Weight %</u>	<u>EXPOSURE LIMIT</u>
Nonylphenoxy (polyethyleneoxy) ethanol	Nonionic Surfactant	9016-45-9	50-90	UNK
Triethanolamine	Triethanolamine	102-71-6	1-5	UNK

## III. PHYSICAL/CHEMICAL CHARACTERISTICS

<u>APPEARANCE &amp; ODOR</u>	<u>VAPOR DENSITY (AIR=1)</u>	<u>BOILING POINT</u>	<u>SOLUBILITY IN WATER</u>
Light Blue Liquid, Bland Odor	>1	UNK	Soluble (>1%)
<u>SPECIFIC GRAVITY</u>	<u>EVAPORATION RATE (N-Butyl Acetate=1)</u>	<u>VAPOR PRESSURE (mmHg)</u>	<u>MELTING POINT</u>
1.06	Negligible	UNK	N/A

## IV. FIRE AND EXPLOSION DATA

<u>FLASHPOINT</u>	<u>FLAMMABLE LIMITS (lower limit) (upper limit)</u>	<u>AUTO IGNITION TEMP</u>
>241°F (CC)	UNK UNK	UNK

EXTINGUISHING AGENTS: Dry Chemical, Alcohol Foam, Carbon Dioxide, or Water Fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

## V. REACTIVITY DATA

<u>STABILITY</u>	<u>HAZARDOUS DECOMPOSITION PRODUCTS</u>	<u>MATERIALS TO AVOID</u>	<u>HAZARDOUS POLYMERIZATION</u>
Stable	Heating in air may produce irritating aldehydes, ketones, and acids, carbon dioxide and carbon monoxide.	Strong Oxidizers and Open Flame	Will not occur.

<b>VI. HEALTH HAZARD DATA</b>
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<b><u>SKIN:</u></b>	<u>ACUTE</u>	Primary skin irritant, severely irritating with redness and edema. May cause dermatitis on prolonged or repeated contact.
	<u>CHRONIC</u>	None Known.
<b><u>EYES:</u></b>	<u>ACUTE</u>	Causes severe eye irritation.
	<u>CHRONIC</u>	None Known
<b><u>INHALATION:</u></b>	<u>ACUTE</u>	Exposure to mist may cause mucous membrane irritation.
	<u>CHRONIC</u>	None known.
<b><u>INGESTION:</u></b>	<u>ACUTE</u>	Could result in abdominal discomfort, nausea, and diarrhea.
	<u>CHRONIC</u>	Prolonged and repeated ingestion may result in chronic kidney and liver changes.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

None are known.

**CARCINOGENICITY**

OSHA: NO

IARC MONOGRAPHS: NO

NTP: NO

**EMERGENCY AND FIRST AID PROCEDURES**

<b><u>SKIN:</u></b>	Immediately flush area with plenty of cool water. If irritation develops, consult a physician.
<b><u>EYES:</u></b>	Immediately flush thoroughly with cool water under low pressure for at least 15 minutes, holding lids apart and moving eye to ensure flushing of the entire surface. Call a physician.
<b><u>INHALATION:</u></b>	Remove from contaminated atmosphere. For throat irritation, drink two glasses of water and call a physician.
<b><u>INGESTION:</u></b>	Never give anything by mouth to an unconscious person. If conscious, give large quantities of water. <b>DO NOT INDUCE VOMITING.</b> If vomiting occurs spontaneously, keep airway clear. Call a physician immediately.

<b>VII. SPILL OR LEAK PROCEDURES</b>
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Dike to contain spill and prevent entry into sewers, waterways, and low area. Soak up pooled liquids with a suitable absorbent (e.g., clay, fullers earth, etc.). Sweep up absorbed material and dispose of in a manner approved by local, state, and federal regulations. Flush spill area with water. Contains no phosphates.

**SPECIAL PRECAUTIONS**

Store in a cool, well-ventilated area away from oxidizers and open flames.

<b>VIII. CONTROL MEASURES</b>
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<u>RESPIRATORY PROTECTION</u>	<u>EYE PROTECTION</u>	<u>PROTECTIVE GLOVES</u>	<u>OTHER PROTECTIVE EQUIPMENT</u>
None for Normal Use	Safety Goggles	Butyl Rubber	Eye wash and safety shower
	<u>VENTILATION:</u> <u>Mechanical</u>	<u>Local</u>	<u>Special</u>
	Normal Air Dilution	None	None

**Shipping Information – Compounds, Cleaning Liquid**

CC = Closed Cup  
 N/A = Not Applicable  
 UNK = Unknown at This Time

**REFRESH**