



## MATERIAL SAFETY DATA SHEET

MSDS: FH/H/2007/LHLA-6ZKSGZ  
FH/H/2006/SDSM-6QXJJJ

Issue Date: 06/01/07

### SECTION I - PRODUCT IDENTIFICATION

Identity: **Liquid Laundry Detergent** (All 2X Concentrated Variations for Retail\*)

**Brands: Dreft 2X Concentrated Detergent**

Emergency Telephone Number: 24hr P&G Operator – 1-800-436-2229

\* **This MSDS applies to** all uses/handling of these products in a retail package for consumer home use.

### SECTION II - HAZARDS IDENTIFICATION

#### Health Hazards (Acute and Chronic):

Ingestion: May cause transient gastrointestinal irritation.  
Eye Contact: May cause mild, transient irritation.  
Inhalation: Transient irritation with prolonged exposure to concentrated material.

#### Signs and Symptoms of Exposure:

Ingestion: May result in nausea, vomiting, and/or diarrhea.  
Eye Contact: May cause stinging, tearing, itching, swelling, and/or redness.  
Skin: Prolonged contact with concentrated material may be drying or transiently irritating to skin.

### SECTION III - COMPOSITION AND INGREDIENTS

Ingredients/Chemical Name: Biodegradable surfactants (anionic and nonionic) and enzymes.  
Biodegradable surfactants (anionic, nonionic, and cationic) and enzymes.

Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200.

<u>Chemical Name</u>	<u>Common Name</u>	<u>CAS No.</u>	<u>Recommended Limits</u>	<u>Composition Range</u>	<u>LD50/LC50</u>
Ethyl alcohol	Ethanol	64-17-5	ACGIH TWA: 1880 mg/m <sup>3</sup> OSHA PEL & TWA: 1900 mg/m <sup>3</sup>	1 - 5%	7.06 g/kg (oral, rat)
Sodium borate	Borax	1330-43-4	ACGIH TWA: 5mg/m <sup>3</sup>	1 - 5%	5.66 g/kg (oral, rat)
2-Aminoethanol	Ethanolamine	141-43-5	ACGIH TWA: 7.5 mg/m <sup>3</sup> ACGIH STEL: 15 mg/m <sup>3</sup> OSHA PEL: 6 mg/m <sup>3</sup> OSHA TWA: 8 mg/m <sup>3</sup> OSHA STEL: 15 mg/m <sup>3</sup>	0.5 - 1.5%	1.7g/kg (oral, rat)

**SECTION IV - FIRST AID INFORMATION****Emergency and First Aid Procedures:**

Ingestion: Drink a glassful of water.  
 Eye Contact: Flush with water for 10 to 15 minutes.  
 Skin: If prolonged contact occurs, rinse thoroughly with water. If spilled on clothing, change clothes.

If symptoms persist or reoccur, seek medical attention.

**Other:** Consumer product package has a caution statement: "CAUTION: Eye irritant. Harmful if swallowed. KEEP OUT OF REACH OF CHILDREN. If swallowed, give a glassful of water. Call a physician. In case of eye contact, flush with water."

**SECTION V - FIRE FIGHTING INFORMATION**

**Flammable Properties:** These products have a Flash Point > 200<sup>0</sup> F., and they do not sustain combustion per D.O.T. 49 CFR 173 Appendix H method. **Explosive Limits:** LEL: N/A UEL: N/A  
**Autoignition Temperature:** N/A

**Suitable Extinguishing Media:** CO<sub>2</sub>, water, foam, dry chemical.

**Unsuitable Extinguishing Media:** Not known.

**Protection of Fire Fighters:**

- **Specific Hazards arising from the chemical mixture:** Not known.
- **Protective Equipment and Precautions for Firefighters:** Standard self-contained breathing apparatus (SCBA) and full fire fighting turn-out gear (Bunker gear).

**SECTION VI - ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** None

**Environmental Precautions:** DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL REGULATIONS. Small or household quantities may be disposed of in refuse or in sewer. First check with your local water treatment plant. For larger quantities, incineration is preferred. Do not landfill.

**Steps To Be Taken in Case Material is Released or Spilled:** Flush small or household quantities down acceptable sewer (contains biodegradable surfactants). Prevent spills from reaching a waterway. Sorbents may be used.

**SECTION VII - HANDLING AND STORAGE**

**Precautions To Be Taken in Handling and Storing:** No unusual precautions necessary.

**Other Precautions:** None

**SECTION VIII - EXPOSURE CONTROLS, PERSONAL PROTECTION**

**Respiratory Protection (Specify Type):** None required with normal use.

**Ventilation** Local Exhaust: None required with normal consumer use. Special: None

Mechanical (General): Normal/general dilution ventilation is acceptable. Other: None

**Eye Protection:** None required with normal consumer use.

*Industrial Setting:* If a splash is likely, chemical goggles may be needed.

**Protective Gloves:** None required with normal use.

*Industrial Setting:* Protective gloves (rubber, neoprene) should be used for prolonged direct contact.

**Other Protective Equipment:** None required with normal use.

**SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b> Liquid Dreft 2X Conc products are pale yellow/straw in color.	<b>Flash Point:</b> Range: > 200 °F. (CC), and these products do not sustain combustion per DOT 49 CFR 173 Appendix H method)
<b>Odor:</b> Liquid Dreft 2X Conc products contain perfume/fragrance.	<b>Evaporation Rate (nBuOAc=1):</b> Not known
<b>Odor Threshold:</b> Not known.	<b>Explosive Limits:</b> LEL: N/A UEL: N/A
<b>Physical State:</b> Liquid.	<b>Percent Volatile by Volume (%):</b> 30 – 40
<b>Vapor Pressure Range (mm Hg):</b> 18 - 21 @ 68°F. (20 <sup>0</sup> C) (mostly water)	<b>Specific Gravity (H<sub>2</sub>O=1):</b> 1.04 to 1.09
<b>Vapor Density (Air=1):</b> Not known	<b>Melting/Freezing Point:</b> N/A
<b>Boiling Point Range °F:</b> 210 - 216° F (98.9 <sup>0</sup> – 102.2 <sup>0</sup> C)	<b>pH (10% solution):</b> 8.1 to 8.6
<b>Coefficient of Water/Oil Distribution:</b> N/A	<b>Reserve Alkalinity:</b> N/A
<b>Solubility in Water:</b> Completely soluble.	

**SECTION X - STABILITY AND REACTIVITY**

<b>Chemical Stability:</b> Stable.
<b>Conditions to Avoid:</b> None known.
<b>Materials to Avoid:</b> None known.
<b>Hazardous Decomposition Products:</b> None known.
<b>Possibility of Hazardous Reactions:</b> None known.

**SECTION XI - TOXICOLOGICAL INFORMATION**

These Products have a low order of toxicity. If ingested, it may be mildly irritating. It is expected to be moderately emetic.
LD50 (oral, estimated): > 2g/kg ED50 (emesis, estimated): ~ 0.5 g/kg
Chronic Effects: No chronic health effects reported.
Target Organs: No target organs reported.
Carcinogenicity: NTP: No IARC: No OSHA: No

**SECTION XII - ECOLOGICAL INFORMATION**

Based on ecotoxicity and fate data for the individual ingredients in these mixtures, and for related consumer household cleaning product formulations, it is expected that these mixtures would exhibit a non-hazardous order of toxicity at relevant environmental concentrations.
---

**SECTION XIII - DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Products covered by this MSDS, in their original form, when disposed as waste, are considered non hazardous waste according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with all Federal, state/provincial and local regulations.

Household Use: Consumer produced household solutions may be disposed of down the drain with running water. Consumer may discard empty container in trash, or recycle where facilities exist.

**SECTION XIV - TRANSPORT INFORMATION**

U.S. D.O.T.: These products are not regulated when transported by ground.

IATA: These products are not regulated when transported by air.

IMDG: These products are not regulated when transported by vessel.

**SECTION XV - REGULATORY INFORMATION**

**United States**

All intentionally-added components of these products are listed on the US TSCA Inventory.

EPA Registration Number: NA

SARA 313/302/304/311/312 chemicals: None

*California:* These products have been evaluated and do not require warning labeling under California Proposition 65.

California Hazardous Waste: Yes

**State Right-to-Know and CERCLA:**

The following ingredients present in the finished product are listed on state right-to-know lists or state worker exposure lists:

Ingredient	CAS #	Level	CERCLA RQ	State				
				IL	MA	NJ	PA	RI
Ethanol	64-17-5	1-5%	100 lbs	X	X	X	X	X
Ethanolamine	141-43-5	1-5%	NA	X	X	X	X	X
Sodium Borate	1330-43-4	1-5%	NA		X		X	

**Canada**

All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this MSDS contains all information required by the Controlled Products Regulations.

**SECTION XVI - OTHER INFORMATION**

Perfumes contained within these products covered by this MSDS comply with appropriate IFRA guidance.

P&G Hazard Rating: 1	Health: 1	4=EXTREME
	Flammability: 1	3=HIGH
	Reactivity: 0	2= MODERATE
		1=SLIGHT
		0=NOT SIGINIFICANT

\*N/A. - Not Applicable

\*N/K. – Not Known

Data supplied is for use only in connection with occupational safety and health.

**DISCLAIMER:** This MSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.