



# MATERIAL SAFETY DATA SHEET

CITRUS FORCE D-  
Limonene-Fortified  
Cleaner/Degreaser

MSDS Ref. No: 4324  
Date Prepared: 03/07/2002  
Date Revised: 03/07/2002

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME/USE: CITRUS FORCE D-Limonene-Fortified Cleaner/Degreaser

### MANUFACTURER

The Butcher Company  
67 Forest Street  
Marlborough, MA 01752-3012

Butcher Telephone Number: 800-225-9475  
Emergency Telephone (24 hours): 800-228-5635  
CHEMTREC (U.S./Can.): 800-424-9300  
CHEMTREC (Int'l): +1 703-527-3887

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS#	% BY WEIGHT
Linear primary alcohol ethoxylate	34398-01-1	7 - 10
d-Limonene	5989-27-5	5 - 7
Dibasic fatty acid potassium salt	68127-33-3	3 - 5
Sodium metasilicate	6834-92-0	3 - 5
Sodium xylene sulfonate	1300-72-7	1 - 1.5

See Section 8 for Exposure Limits NA - Not Applicable

OSHA REGULATORY STATUS: This product is classified as hazardous under OSHA regulations.

WHMIS CLASS: Class B- Division 3; Class D- Division 2B

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
Clear to Slightly Hazy, Orange Liquid . Citrus Odor. Combustible. May Cause Eye Burns and Skin Irritation.

### POTENTIAL HEALTH EFFECTS (See Section 11 for Toxicological Information)

PRIMARY ROUTE(S) OF EXPOSURE:  Eye       Skin Contact       Skin Absorption  
 Inhalation       Ingestion

### EFFECTS OF ACUTE EXPOSURE

**EYES:** May cause eye burns. Symptoms may include pain, tearing, redness, swelling, and eye injury.

**SKIN:** May cause skin irritation. Symptoms may include redness, rash and mild swelling.

**INHALATION:** High concentrations of vapor or mist may cause nose, throat and respiratory tract irritation. Symptoms may include coughing and a burning sensation in the nose and throat.

**INGESTION:** May cause mouth, throat and stomach burns. Symptoms may include nausea, vomiting, diarrhea and severe stomach pain.

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**EFFECTS OF CHRONIC EXPOSURE:** Prolonged contact may cause skin burns. Symptoms may include pain, redness, swelling, scarring, and skin damage. Prolonged or repeated exposure to an ingredient in this product may cause allergic skin reaction.

**MEDICAL CONDITIONS AGGRAVATED:** May aggravate pre-existing eye, skin and respiratory conditions.

## 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water while holding eyelids apart. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not put any medication in the victim's eyes unless instructed by a physician. Get immediate medical attention.

**SKIN:** Flush thoroughly with plenty of water, then wash with soap and water. Remove saturated clothing. Get medical attention if irritation develops or persists. Thoroughly wash (or discard) clothing and shoes before reuse.

**INHALATION:** Remove to fresh air. If not breathing, give respiration; if breathing is difficult, give oxygen (by trained personnel only). Get medical attention if symptoms persist.

**INGESTION:** Do not induce vomiting. Drink large quantities of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT AND METHOD:** 72°C (162°F)TCC

**FLAMMABLE LIMITS** 0.7% (d-limonene) to 6.1% (d-limonene)

**AUTOIGNITION TEMPERATURE:** Not applicable.

**EXTINGUISHING MEDIA:** Use water fog, dry chemical, CO<sub>2</sub>, or foam.

**HAZARDOUS COMBUSTION PRODUCTS:** Normal products of combustion (carbon monoxide and carbon dioxide) and sodium oxides.

**FIRE AND EXPLOSION HAZARDS:** Class IIIA combustible liquid. This product is combustible and may be ignited by heat, flames and other ignition sources.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area. Cool containers exposed to fire with water. MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear should be worn.

## 6. ACCIDENTAL RELEASE MEASURES

See Section 8, Exposure Controls/Personal Protection and Section 3, Hazard Identification. Floors may be slippery. Use care to avoid falling. Contain and isolate spill. Keep non-essential personnel from entering spill area. Use mop, absorbent, or wet vacuum to collect material for proper disposal. Rinse area with water.

## 7. HANDLING AND STORAGE

**HANDLING:** Follow label use directions. Do not mix with other chemicals unless instructed by label directions. Avoid contact with eyes and skin. Avoid breathing mist. Wash thoroughly after handling. Remove saturated clothing. Wash clothing and equipment before reuse.

**STORAGE:** Keep container closed when not in use. Store away from incompatible materials. (See Section 10, Stability and Reactivity). Keep away from heat and flame.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**EYE:** Where eye contact is possible, wear chemical splash goggles (ANSI Z87.1-approved).

**SKIN:** Where skin contact is possible, chemical-resistant clothing (e.g., gloves) should be worn.

**RESPIRATORY:** No respiratory protection is required if ventilation is adequate.

**ENGINEERING CONTROLS:** Good general room ventilation is expected to be adequate.

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## EXPOSURE LIMITS:

### INGREDIENT(S)

Linear primary alcohol ethoxylate  
d-Limonene  
Dibasic fatty acid potassium salt  
Sodium metasilicate  
Sodium xylene sulfonate

### OSHA PEL/STEL

NA  
NA  
NA  
NA  
NA

### ACGIH TLV/STEL

NA  
NA  
NA  
NA  
NA

NA - Not Available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Citrus

**APPEARANCE:** Clear to Slightly Hazy, Orange

**pH:** 12.8 to 13.7

**PERCENT VOLATILE BY WEIGHT:** 83

**VAPOR PRESSURE:** Not Determined

**VAPOR DENSITY:** Not Determined

**BOILING POINT:** Not Determined

**FREEZING/MELTING POINT:** Not Determined

**SOLUBILITY IN WATER:** Complete

**EVAPORATION RATE:** Not Determined

**SPECIFIC GRAVITY:** 1.03

**VISCOSITY:** Water Thin

**OCTANOL/WATER PARTITION COEFFICIENT:** Not Determined

**ODOR THRESHOLD:** Not Determined

## 10. STABILITY AND REACTIVITY

**STABILITY (CONDITIONS TO AVOID):** Stable.

**POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION:** None known.

**INCOMPATIBLE MATERIALS:** Oxidizers (e.g., bleach), strong acids (e.g., hydrochloric acid) and reactive metals (e.g., aluminum).

## 11. TOXICOLOGICAL INFORMATION

**ACUTE DATA:** No data is available for this product. The following data are available for product ingredients:

<u>PRODUCT/INGREDIENT</u>	<u>ORAL LD<sub>50</sub> (rat)</u>	<u>DERMAL LD<sub>50</sub> (rabbit)</u>	<u>INHALATION LC<sub>50</sub> (rat)</u>
Linear primary alcohol ethoxylate	700 - 1700 mg/kg	>2000 - mg/kg	Not Available
d-Limonene	4400 - mg/kg	>5000 - mg/kg	10.6 - mg/L (5-hr)
Dibasic fatty acid potassium salt	>6000 - mg/kg	Not Available	> Not Available
Sodium metasilicate	600 - 1153 mg/kg	Not Available	Not Available
Sodium xylene sulfonate	650 - 4000 mg/kg	3000 - mg/kg	Not Available

**SENSITIZATION DATA:** d-Limonene has been reported to cause allergic skin reaction (redness, swelling, and itching) in humans and in laboratory animals.

### CHRONIC DATA:

Prolonged overexposure to high concentrations of d-limonene by ingestion has caused kidney effects in laboratory animals.

**REPRODUCTIVE/TERATOGENIC DATA:** No data available.

**CARCINOGENIC/MUTAGENIC DATA:** Not listed as carcinogenic by NTP, IARC, or ACGIH or regulated as a carcinogen by

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OSHA.

**SYNERGISTIC MATERIALS:** No data available.

## 12. ECOLOGICAL INFORMATION

This product is made with all biodegradable detergents. No other data available.

## 13. DISPOSAL CONSIDERATIONS

Disposal of this material should be in accordance with local, state or provincial and federal regulations. The unused product, as manufactured, is a RCRA hazardous waste (Corrosive-D002) in accordance with 40 CFR 261. The product has not been evaluated by the Toxicity Characteristic Leachate Procedure (TCLP). According to RCRA, it is the responsibility of the waste generator to ensure proper disposal.

## 14. TRANSPORT INFORMATION

**DOT/TDG HAZARDOUS MATERIAL DESCRIPTION:** Not regulated

## 15. REGULATORY INFORMATION

*Not meant to be all-inclusive---selected regulations represented.*

### UNITED STATES

#### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HAZARD CATEGORIES:** Under 40 CFR 370.2, this product meets the following hazard categories: Immediate, Delayed.

**313 REPORTABLE INGREDIENTS:** Ingredients in this product are not currently subject to notification.

#### CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** None of the ingredients in this product are reportable under CERCLA.

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA STATUS:** This product complies with all TSCA inventory requirements.

#### MASSACHUSETTS, NEW JERSEY, PENNSYLVANIA RIGHT-TO-KNOW:

<u>INGREDIENT(S)</u>	<u>CAS NO.</u>	<u>STATE LISTING</u>
Water	7732-18-5	Not Listed
Linear primary alcohol ethoxylate	34398-01-1	Not Listed
d-Limonene	5989-27-5	Not Listed
Dibasic fatty acid potassium salt	68127-33-3	Not Listed
Sodium metasilicate	6834-92-0	Not Listed

*NA - Not Applicable*

### CANADA

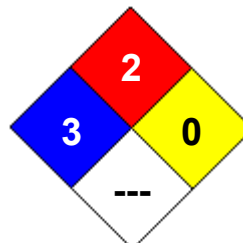
**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** Class B-Division 3, combustible liquid; Class D-Division 2B, eye and skin irritant, potential skin sensitizer. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

## 16. OTHER INFORMATION

### HMIS RATING

HEALTH	*	3
FLAMMABILITY		2
REACTIVITY		0
PERSONAL PROTECTION		-

### NFPA CODES:



**APPROVED BY:** Product Safety & Regulatory

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## MSDS STATUS

**Revision No: 1**

Revision #: 1

This MSDS replaces the May 12, 1999 MSDS. Any changes in information are as follows:

In Section 1

Approved by Prepared By Date Prepared [ ] Print CHEMTREC Phone Number

In Section 10

Hazardous Decomposition Products

In Section 15

OSHA Hazard Comm. Rule WHMIS Class

**APPROVAL DATE:** 03/07/2002

*The information on this data sheet represents our current data and best opinion as to the proper use in handling of the product under normal foreseeable conditions. Any use of this product which is not in conformance with this data sheet or product label, or which involves using the product in combination with any other product or any other process is the responsibility of the user.*