



MATERIAL SAFETY DATA SHEET

**CITRUS FORCE D-Limonene-Fortified
Cleaner/Degreaser**

Date Prepared: 05/12/1999
Date Revised: 05/12/1999

1. CHEMICAL 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 Ext 118

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT(S)</u>	<u>CAS NO.</u>	<u>% BY WEIGHT</u>
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*

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.

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: 162°F 72°C TCC

FLAMMABLE LIMITS

UPPER EXPLOSIVE LIMIT: 6.1% (d-limonene)

LOWER EXPLOSIVE LIMIT: 0.7% (d-limonene)

AUTOIGNITION TEMPERATURE: Not applicable.

EXTINGUISHING MEDIA:

Use water fog, dry chemical, CO₂, 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:

General room ventilation is expected to be adequate.

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EXPOSURE LIMITS:

<u>INGREDIENT(S)</u>	<u>OSHA PEL/STEL</u>	<u>ACGIH TLV/STEL</u>
Linear primary alcohol ethoxylate	NE	NE
d-Limonene	NE	NE
Dibasic fatty acid potassium salt	NE	NE
Sodium metasilicate	NE	NE
Sodium xylene sulfonate	NE	NE

NE - Not Established

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.

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:

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<u>PRODUCT/INGREDIENT</u>	<u>ORAL LD₅₀ (rat)</u>	<u>DERMAL LD₅₀ (rabbit)</u>	<u>INHALATION LC₅₀ (rat)</u>
Linear primary alcohol ethoxylate	1000–4000 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	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 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.

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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):

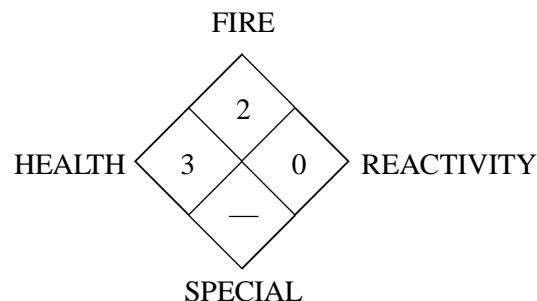
Class B-Division 3, combustible liquid; Class D-Division 2B, eye and skin irritant, potential skin sensitizer.
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

HMIS RATING

HEALTH	*	3
FLAMMABILITY		2
REACTIVITY		0
PERSONAL PROTECTION		-

NFPA RATING



MSDS STATUS

New MSDS

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APPROVED BY: EH&S/Regulatory Affairs
APPROVAL DATE: 05/12/1999

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.