

**MATERIAL SAFETY DATA SHEET**  
COMPLIES WITH OSHA'S HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

**SECTION I · PRODUCT IDENTIFICATION**

**Product Name:** TUFF STUFF Aerosol  
**Product Type:** AEROSOL  
**Formula:** Proprietary  
**Sold By:** Continental Research Corp.  
**Supplier's Address:** P.O. Box 15204 St. Louis, Mo. 63110  
**DOT Ship Description:** Consumer Commodity, ORM-D

**Date Prepared:** 11/5/2007  
**Information Phone:** (800) 325-4869  
**Emergency Phone:** (800) 325-4869

**HMIS Rating (Based on Aerosol Conc.):**  
0-Minimal 1-Slight 2-Moderate  
3-Serious 4-Extreme

HEALTH:	1
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
Personal Protection:	B

**SECTION II · INGREDIENTS**

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>%WT</u>	<u>313/Chem</u>	<u>Skin</u>	<u>Carcinogen</u>	<u>PEL</u>	<u>TLV-TWA</u>
Poly-(oxy-1,2-ethanediyl)-alpha-undecyl-omega Alcohols, C12-13, ethoxylated	34398-01-1 66455-14-9	1 - 10 1 - 10	NO NO	NO NO	NO NO	N/E N/E	N/E N/E
Carbon Dioxide	124-38-9	1 - 5	NO	NO	NO	5000 ppm	5000 ppm

**SECTION III · PHYSICAL DATA**

**Aerosol Concentrate:**  
**Boiling Point:** > 350 °F  
**pH:** N/A  
**Appearance/Odor:** Light yellow liquid with bland odor.  
**Specific Gravity (H<sub>2</sub>O=1)@70 °F:** 0.885  
**Solubility In Water:** Emulsifies  
**Vapor Density(Air=1):** >1  
**Total Contents:**  
**Total VOC %:** 2.04%  
**Vapor Pressure (can; psig @72 °F):** 75 psig

**SECTION IV · FIRE AND EXPLOSION DATA**

**Flash Point (Conc.):** > 200 °F  
**Extinguishing Media:** Foam, CO<sub>2</sub>, Dry Media  
**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers to prevent rupturing.  
**Unusual Fire and Explosion Hazards:** Exposure to temperature above 120° F may cause bursting.  
**Flammability (as per CSMA Flame Projection Test):** Non-Flammable Spray

**SECTION V · REACTIVITY DATA**

**Stability:** Material Stable.  
**Incompatibility:** Avoid contact with strong oxidizing agents,  
**Hazardous Decomposition Products:** Carbon Dioxide, Carbon Monoxide  
**Hazardous Polymerization:** Will not Occur.

**SECTION VI · STORAGE AND HANDLING**

**KEEP OUT OF REACH OF CHILDREN.**  
For Industrial and Institutional use only.  
Store in a cool, dry area away from heat or open flame.  
Do not store at temperatures above 120° F.  
**NFPA Code 30B Rating:** Level 3 Aerosol.

**SECTION VII · HEALTH AND FIRST AID**

**PRIMARY ROUTES OF ENTRY & EFFECTS OF OVER EXPOSURE:**  
**Eyes:** May cause irritation.  
**Skin:** Frequent or prolonged contact may cause irritation, drying and defatting of skin, and dermatitis. May aggravate existing skin conditions.  
**Inhalation:** Inhalation of mist can cause irritation of nasal and respiratory passages. Frequent or prolonged exposure may cause irritation to the upper respiratory tract, coughing.  
**Ingestion:** Harmful if swallowed. Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause lung injury.  
**FIRST AID PROCEDURES:**  
**Eyes:** Flush with large amounts of cool running water for at least 15 minutes while holding upper and lower lids open. If irritation persists get medical attention immediately.  
**Skin:** Wash with soap and water. If irritation persists seek medical attention.  
**Inhalation:** Remove to fresh air. Seek medical attention immediately. If breathing stops give artificial respiration.  
**Ingestion:** Do not induce vomiting. Seek medical attention immediately.

**SECTION VIII · SPECIAL PROTECTION DATA**

**Respiratory Protection:** None needed for proper use in accordance with label directions.  
**Ventilation:** Provide local exhaust to keep air concentrations of ingredients listed in Section II below acceptable limits.  
**Protective Gloves:** Use chemical resistant gloves if hand contact will be made.  
**Eye Protection:** Always wear safety glasses or chemical proof goggles when working with any chemical.

**SECTION IX · SPILL OR LEAK PROTECTION**

**STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:** Allow propellant to evaporate. Maintain local exhaust and adequate ventilation. No smoking. Keep sparks, heat sources and open flame far away from spill or leak. Cover with absorbent material and sweep up. Wash area to prevent slipping. Dispose of soaked absorbent material in accordance with Federal, State and local laws.  
**WASTE DISPOSAL METHOD:** Aerosol cans, when emptied and depressurized through normal use, pose no disposal hazard and should be recycled. Consult Federal, State and local authorities for approved procedures.

N/A= NOT APPLICABLE · N/E=NOT ESTABLISHED · N/D=NOT DETERMINED · <=LESS THAN · >=MORE THAN

**NOTICE:** The information contained on this Material Safety Data Sheet is considered accurate as of the date of publication. It is not necessarily all inclusive nor fully adequate in every circumstance. The suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements. No warranty, express or implied, of merchantability, fitness, accuracy of data, or the results to be obtained from the use thereof is made. The vendor assumes no responsibility for injury or damages resulting from the inappropriate use of this product.

# MATERIAL SAFETY DATA SHEET

## 1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name: TUFF STUFF  
Product: Soy Methyl Ester Rinsable  
Sold By: Continental Research Corp.  
PO Box 15204  
St. Louis, Mo. 63110

Emergency Telephone Numbers (800) 325-4869 Chem-Tel 800-255-3924

## 2 COMPOSITION & INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Percent</u>
Methyl Ester, Soybean Oil	67784-80-9	> 90%
Nonionic_Surfactants	24938-91-8	<10%

## 3 HAZARDS IDENTIFICATION

### Emergency Overview

Clear yellow-colored liquid at 25°C  
May cause irritation to the eyes, skin and respiratory system

### Health Effects: Eyes

This product may cause slight eye irritation.

### Health Effects: Skin

May cause slight skin irritation.

### Health Effects: Inhalation

High vapor or aerosol mist concentrations may be irritating to the nose, throat and upper respiratory tract.

### Health Effects: Ingestion

Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea and diarrhea.

## 4 FIRST AID MEASURES

### Eyes

Flush with large amounts of water for at least 15 minutes. If irritation persists, seek medical attention.

### Skin

Wash exposed areas. If irritation persists, seek medical attention.

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### **Inhalation**

Immediately remove individual to fresh air. If problem persists, seek medical attention.

### **Ingestion**

If ingestion of large amount does occur, seek medical attention. Do not induce vomiting.

## **5 FIRE FIGHTING MEASURES**

Rags soaked with any solvent or oily material present a fire hazard and should always be stored in a "UL" listed or "Factory Mutual" approved covered container. Improperly stored rags can create conditions that lead to oxidation that in turn, may lead to spontaneous combustion.

**Flash Point:** Greater than 201°F (PMCC)

### **Extinguishing Media:**

Dry chemical, foam, carbon dioxide, and water fog.

### **Fire Fighting Equipment / Instructions**

Self-contained breathing apparatus is recommended for firefighters. Apply water fog or mist gently; heavy application of hot oil could cause foaming. Avoid contact with hot oil.

## **6 ACCIDENTAL RELEASE MEASURES**

### **SPILL AND LEAK PROCEDURES**

#### **Emergency Action:**

Contain or isolate spill or leak area immediately. Keep unauthorized personnel away. Ventilate closed spaces before entering.

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Wear appropriate personal protective equipment during cleanup.

**Small Spills:** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Large Spills:** Dike ahead of liquid spill for later disposal. Prevent entry into waterways, sewers, basements or confined areas.

Surfaces may become slippery after spillage.

## **7 HANDLING & STORAGE**

### **Handling Procedures:**

Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

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### **Storage Procedures:**

Store in a dry, well-ventilated area. Do not handle or store near an open flame, heat or other sources of ignition. Store away from strong oxidizers.

## **8 EXPOSURE CONTROLS & PERSONAL PROTECTION**

### **Engineering Controls:**

Use general ventilation. Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

### **Personal Protective Equipment: Eyes/Face**

Wear safety glasses or chemical goggles and a face shield if splashing is possible.

### **Personal Protective Equipment: Skin**

Wear suitable protective clothing. Use impervious gloves.

### **Personal Protective Equipment: Respiratory**

If vapors are present or irritation is experienced, NIOSH approved respiratory protection for organic vapors should be worn.

## **9 PHYSICAL & CHEMICAL PROPERTIES**

<u>Form</u>	Fluid
<u>Appearance</u>	Yellow Liquid
<u>Specific Gravity (water = 1)</u>	0.882 g/ml (7.35lb/gal) @ 25°C
<u>Boiling Point</u>	>575°F
<u>Solubility in Water (by weight %)</u>	Not Soluble
<u>Odor</u>	Slightly Sweet
<u>Color</u>	Yellow to amber
<u>Vapor Pressure (mm Hg at 20°C)</u>	~1.8mm Hg
<u>Vapor Density (air = 1)</u>	Estimated heavier than air.
<u>VOC</u>	Less than 25 grams / liter
<u>Viscosity cSt at 40°C</u>	~4.0

## **10 STABILITY & REACTIVITY**

### **Chemical Stability:**

Stable under normal conditions.

### **Conditions to Avoid:**

Avoid strong oxidizing agents.

### **Incompatibility:**

This product may react with strong oxidizing agents and alkalies.

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### **Hazardous Decomposition:**

Methanol may be formed if material is hydrolyzed or saponified.

### **Hazardous Polymerization:**

Will not occur.

## **11 TOXICOLOGICAL INFORMATION**

### **Carcinogenicity:**

Not listed as carcinogenic according to IARC, NTP or OSHA.

### **Mutagenicity:**

This product class is non-mutagenic.

### **LD50 Values:**

Oral LD50 (rat) = >5000 - 15,000 mg/kg

Dermal LD50 (rabbit) = >2,000 < or equal to 20,000 mg/kg

## **12 ECOLOGICAL INFORMATION**

### **Ecotoxicity:**

No data available.

### **Environmental impact:**

This product is biodegradable.

## **13 DISPOSAL CONSIDERATIONS**

### **Disposal Instructions:**

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State and Local regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator.

## **14 TRANSPORT INFORMATION**

### **DOT Proper Shipping Name:**

Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

## **15 REGULATORY INFORMATION**

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Percent</u>
Methyl Ester, Soybean Oil	67784-80-9	> 90%
Nonionic_Surfactants	24938-91-8	< 10%

## MATERIAL SAFETY DATA SHEET

### **Inventories:**

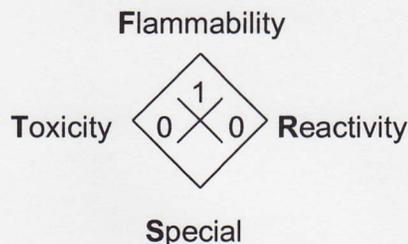
All components of this product are listed on the following inventories: U.S.A.(TSCA), Canada(DSL), Europe(EINECS/ELINCS/Polymer/NLP), Korea(ECL), Australia(AICS), China (EICSC 2003).

There is no calculable reportable quantity (RQ) for this product.

## **16 OTHER INFORMATION**

### **NFPA HAZARD RATING**

- 4 - Extreme
- 3 - High
- 2 - Moderate
- 1 - Slight
- 0 - Insignificant



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### **HMIS HAZARD INDEX (Hazardous Materials Identification System)**

- 4 - Severe
- 3 - Serious
- 2 - Moderate
- 1- Slight
- 0 - Minimal

- Health
- Flammability
- Reactivity
- Personal Protection

### **HMIS RATINGS**

0	
1	
0	

**Name**    **Tec Service**

**Date**    October 21, 2008

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