Tough On Grease

Tough On Grease is a non-butyl, water soluble cleaner/degreaser. Incorporating unique bipolar emulsifiers, Tough On Grease safely removes petroleum greases found in industrial applications as well as animal fat based soils prevalent in food manufacturing, processing and preparation.
EFFICIENT
Tough On Grease is an aggressive grease emulsifier formulated to remove tough animal fat or petroleum-based soils. Tough on Grease efficiently removes stubborn soils, such as tire and rubber marks, asphalt, tar, oil, carbon exhaust, etc.

VERSATILE
Tough On Grease can be used on a variety of surfaces and with nearly all kinds of equipment.

- Cleans and degreases any surface not harmed by water.
- Low-foaming characteristic permits use with pressure washers, automatic scrubbers, brushes, mops or as a spray and wipe for walls and equipment.

PLEASANT TO USE
Dye free. Non-staining. Contains no perfume. No butyl or caustic “kick-back”.

DIRECTIONS FOR USE:
Industrial Cleaning and Degreasing
1. Apply diluted Tough On Grease with a sprayer, sponge, brush or mop, depending on the surface to be cleaned. Also may be used in pressure equipment, steam cleaners and automatic floor machines.
2. Tough On Grease is excellent for cleaning most surfaces not harmed by water. Experiment with Tough On Grease at different dilution levels before establishing a cleaning procedure since a higher dilution might accomplish the task and provide greater economy.
3. Rinse thoroughly with hot or cold water.

Recommended Dilution Ratios for Tough On Grease in One Gallon of Water

<table>
<thead>
<tr>
<th>Soil Load</th>
<th>Dilution Ratio</th>
<th>Oz./Gal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Duty</td>
<td>1:64</td>
<td>2 oz.</td>
</tr>
<tr>
<td>Medium Duty</td>
<td>1:15</td>
<td>8 oz.</td>
</tr>
<tr>
<td>Heavy Duty</td>
<td>1:5</td>
<td>25 oz.</td>
</tr>
</tbody>
</table>

Food Manufacturing, Processing and Preparation
1. For general cleaning, degreasing and daily maintenance, dilute Tough On Grease 1:10 (12 oz. per gallon of water).
2. To remove heavy accumulations of vegetable oil, animal fat and grease, dilute Tough On Grease 1:5 (25 oz. per gallon of water). Set deposits may require the use of Tough On Grease at higher concentrations in conjunction with an abrasive pad or brush.
3. Cleaned surfaces should be rinsed thoroughly with potable water.

SPECIFICATION DATA
Total Active Ingredients: 13.8%
Specific Gravity: 1.044 @ 24°C/75°F
Density: 8.69 lbs./gal. @ 24°C/75°F
Viscosity: Non-viscous
pH (Concentrate): 11.7–12.3
Solvents: Dipropylene glycol n-propyl ether
Flash Point (Tag Closed Cup): None
Stability:
  a. Shelf @ 24°C/75°F: One year minimum
  b. Accelerated @ 49°C/120°F: 30 days minimum
  c. Freeze/Thaw: 3 cycles
Miscibility: Mixes well with hot or cold water.
Rinsability: Rinses freely with hot or cold water.
Biodegradable

Be sure to read all Directions, Precautionary and First Aid Statements on product labels before use of this or any Spartan product. If questions remain, consult your employer or a physician. Material Safety Data Sheets for all Spartan products are available from your authorized Spartan distributor or by visiting www.spartanchemical.com.

PACKAGING

- 203465: 330 Gallon Totes
- 203455: 55 Gallon Drums
- 203430: 30 Gallon Drums
- 203415: 15 Gallon Drums
- 203405: 5 Gallon Pails
- 203404: 1 Gallon (4 per case)

For institutional and industrial use only. ©SCC 04/15 L2034
1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Name:** TOUGH ON GREASE

**Product Number:** 2034, 2034I

**Recommended Use:** Cleaning agent

**Uses Advised Against:** For Industrial and Institutional Use Only

**Manufacturer/Supplier:** Spartan Chemical Company, Inc.

1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

**24 Hour Emergency Phone Numbers:**

Medical Emergency/Information: 888-314-6171
Transportation/Spill/Leak: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

**GHS Classification**

Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2A

**GHS Label Elements**

Signal Word: Warning

Symbols:

![Warning Symbol](image)

**Hazard Statements:**

Causes skin irritation.
Causes serious eye irritation

**Precautionary Statements:**

**Prevention:**
Wash hands and any exposed skin thoroughly after handling.
Wear protective gloves
Wear eye / face protection

**Response:**

- **Eyes**
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

- **Skin**
  IF ON SKIN (or hair): Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse.

- **Specific Treatment:**
  See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

**Storage:** Not Applicable

**Disposal:** Not Applicable

**Hazards Not Otherwise Classified:** Not Applicable
Other Information:  
- May be harmful if swallowed.
- Inhalation of vapors or mist may cause respiratory irritation.
- Keep out of reach of children.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>60-100</td>
</tr>
<tr>
<td>dipropylene glycol monopropyl ether</td>
<td>29911-27-1</td>
<td>1-5</td>
</tr>
<tr>
<td>alcohol ethoxylate</td>
<td>68439-46-3</td>
<td>1-5</td>
</tr>
<tr>
<td>sodium tripolyphosphate</td>
<td>7758-29-4</td>
<td>1-5</td>
</tr>
<tr>
<td>sodium xylene sulfonate</td>
<td>1300-72-7</td>
<td>1-5</td>
</tr>
<tr>
<td>alcohol ethoxylate</td>
<td>34398-01-1</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

- **Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- **Skin Contact:** Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical attention.
- **Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
- **Ingestion:** Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.

**Note to Physicians:** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Product does not support combustion. Use extinguishing agent suitable for type of surrounding fire.

**Specific Hazards Arising from the Chemical:** Dried product is capable of burning. Combustion products are toxic.

**Hazardous Combustion Products:** May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.

**Protective Equipment and Precautions for Firefighters:** Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Environmental Precautions:** Do not rinse spill onto the ground, into storm sewers or bodies of water.

**Methods for Clean-Up:** Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

### 7. HANDLING AND STORAGE

**Advice on Safe Handling:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

**Storage Conditions:** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Occupational Exposure Limits: None established.

Engineering Controls: Provide good general ventilation.
If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.

Personal Protective Equipment
Eye/Face Protection: Wear splash goggles.
Skin and Body Protection: Wear rubber or other chemical-resistant gloves.
Respiratory Protection: Not required with expected use.
If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.

General Hygiene Considerations: Wash hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance/Physical State:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor:</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH:</td>
<td>11.7-12.3</td>
</tr>
<tr>
<td>Melting Point / Freezing Point:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling Point / Boiling Range:</td>
<td>100 °C / 212 °F</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>&gt; 100 °C / &gt; 212 °F ASTM D56</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper Flammability Limit:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Lower Flammability Limit:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.04</td>
</tr>
<tr>
<td>Solubility(ies):</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity: This material is considered to be non-reactive under normal conditions of use.
Chemical Stability: Stable under normal conditions.
Possibility of Hazardous Reactions: Not expected to occur with normal handling and storage.
Conditions to Avoid: Extremes of temperature and direct sunlight.
Hazardous Decomposition Products: May include carbon monoxide, carbon dioxide (CO2) and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:
- Eye Contact: Pain, redness, swelling of the conjunctiva and blurred vision.
- Skin Contact: Pain, redness and cracking of the skin.
- Inhalation: Nasal discomfort and coughing.
- Ingestion: Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects Product Information: Data not available or insufficient for classification.
Numerical Measures of Toxicity

The following acute toxicity estimates (ATE) are calculated based on the GHS document.

ATEmix (oral): 12086 mg/kg
ATEmix (dermal): 48043 mg/kg

Component Acute Toxicity Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>water 7732-18-5</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>dipropylene glycol monopropyl ether 29911-27-1</td>
<td>1620 µL/kg (Rat)</td>
<td>5660 µL/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
<tr>
<td>alcohol ethoxylate 68439-46-3</td>
<td>1378 mg/kg (Rat)</td>
<td>&gt; 2 g/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
<tr>
<td>sodium tripolyphosphate 7758-29-4</td>
<td>3100 mg/kg (Rat)</td>
<td>&gt; 7940 mg/kg (Rabbit)</td>
<td>Not Available</td>
</tr>
<tr>
<td>sodium xylene sulfonate 1300-72-7</td>
<td>7200 mg/kg (Rat)</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/Aquatic Plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium tripolyphosphate 7758-29-4</td>
<td>Not Available</td>
<td>1650: 48 h Leuciscus idus mg/L LC50</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT: Not Regulated
Proper Shipping Name: Non-Hazardous Product
Special Provisions: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

IMDG: Not Regulated
Proper Shipping Name: Non-Hazardous Product

15. REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory)
All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313
This product does not contain listed substances above the "de minimus" level

SARA 311/312 Hazard Categories
Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden release of pressure hazard: No
Reactive Hazard: No

California Proposition 65
This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards:</th>
<th>Flammability:</th>
<th>Instability:</th>
<th>Special:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
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</tbody>
</table>

HMIS

<table>
<thead>
<tr>
<th>Health Hazards:</th>
<th>Flammability:</th>
<th>Physical Hazards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Revision Date: 27-Jul-2015
Reasons for Revision: Section 14 and 15

Disclaimer:
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet