TOUGH ON GREASE®
CLEANER/DEGREASER

PRODUCT DESCRIPTION:
TOUGH ON GREASE is a non-butyl, water-soluble cleaner/degreaser incorporating unique bipolar emulsifiers to safely remove petroleum greases found in industrial applications as well as animal fat based soils prevalent in food manufacturing, processing and preparation.

POLEMIC™ TECHNOLOGY!
"Polemic" is the Greek word for aggressive or warlike. TOUGH ON GREASE is an aggressive grease emulsifier formulated to remove polar soils...assist the removal of non-polar soils. It combines hydrophilic or polar (water-loving wetting agents) and lipophilic or non-polar (oil-loving wetting agents). These wetting agents, balanced and blended with "no-butyl" glycol ethers and builders, easily remove normal water based soils and are especially aggressive in the emulsification and removal of animal fats and petroleum-based soils. TOUGH ON GREASE assists in the removal of stubborn non-polar soils such as tire and rubber marks, asphalt, tar, oil, carbon exhaust, etc.

USER FRIENDLY/ENVIRONMENTALLY CONSCIOUS:

TOUGH ON GREASE's aggressive cleaning and degreasing action can be attributed in part to the use of Dipropylene glycol n-propyl in place of traditional butyls. Dipropylene glycol n-propyl is not listed as a hazardous ingredient under SARA Title III, The Clean Air Act, The Clean Water Act or any act designed to alleviate environmental concerns. Therefore, there is no need to report use of TOUGH ON GREASE to the EPA or regional SARA coordinator.

TOUGH ON GREASE's non-reportable status can be extremely important when facilities use 20-40 drums of a degreaser per year. Generally speaking, any cleaner/degreaser that incorporates butoxyethanol, or any ethylene, diethylene or triethylene based glycol ethers will require reporting to the regional SARA coordinator.
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. Its low-foaming characteristic permits use with pressure washers, automatic scrubbers, brushes, mops or as a spray and wipe for walls and equipment. Can also be used with Spartan's SAM Connection Dispensing System.

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

WHERE TO USE:
Use TOUGH ON GREASE on these surfaces:

<table>
<thead>
<tr>
<th>Brick</th>
<th>Plastic</th>
<th>Iron and steel</th>
<th>Quarry tile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>Canvas</td>
<td>Porcelain</td>
<td>Resilient tile</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>Rubber</td>
<td>Ceramic tile</td>
<td>Brass</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Copper</td>
</tr>
</tbody>
</table>

WHO CAN BENEFIT?
Industry: equipment, floors, walls, showers, lunchrooms, vending machines.
Transportation: tough soils under airplane wings, light to medium duty soils on rest of plane; bus interior as well as prespray for back of bus; train interiors and exteriors.
Printing companies: die printing of corrugate, newspaper ink.
Office buildings: office equipment, i.e., typewriters, calculators, postage equipment.
Car dealerships: used car clean-up.
Marinas: hulls, decks and engines.
Laundries: pre-spot for collars and grass stains.
Hotels/Motels: swimming pools, outdoor furniture and awnings.
Restaurants: kitchens, flues, hoods, floors and walls.

DIRECTIONS FOR USE:
Some individuals may be sensitive to ingredients in this product. Before use, read product label and Material Safety Data Sheet. If questions remain, consult your employer or a physician.

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

**PACKAGING:**

TOUGH ON GREASE is packaged in the 330-gallon reusable tote; the 275-gallon reusable tote; attractively silk-screened HDPE (High Density Polyethylene) 55, 30, and 15-gallon drums; 5-gallon pails; and gallons, four per case. Label copy is available in both English and Spanish. Secondary labels are also available.

**GUARANTEE:**

Spartan's modern manufacturing and laboratory control insure uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within one year of the date of manufacture.

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