

ORANGE TOUGH[®] 90

STRAIGHT, WATER-RINSABLE, NATURAL SOLVENT DEGREASER

PRODUCT DESCRIPTION:

Orange Tough 90 is an all natural, emulsifiable straight solvent degreaser for extremely heavy duty degreasing and cleaning of engines, machinery, tools, grills, all metals, and concrete. Orange Tough 90 is based on d-limonene, a natural solvent distilled from citrus peels -- usually oranges. The product is clear, bright orange in color and has a very pleasant orange fragrance.

Designed for use full strength and rinsed with water, Orange Tough 90 is formulated and marketed for those who, due to government regulations, concern for worker safety, or a preference for naturally derived solvents, do not want to use petroleum distillates or chlorinated solvents such as Trichlorethylene, Perchlorethylene, methylene chloride, carbon tetrachloride and toluene.

100% ACTIVE INGREDIENTS:

Orange Tough 90 provides powerful degreasing and cleaning performance. The formula is 100% active...a blend of 90% d-limonene, a biodegradable solvent derived from citrus peel oil, and 10% surfactants for coupling and water emulsification. This blend of powerful, natural, grease cutting solvents and heavy duty soil-removing detergents provides extremely fast penetration, emulsification and removal of grease, dirt, oil, cosmoline, tar, rubber burns, carbon, creosote, many inks and adhesives...nearly every kind of stubborn industrial soil.

Not all products claiming to be "natural citrus cleaners" are 100% d-limonene. They usually contain less effective and less expensive combinations of solvents such as IPA, glycol ether or other natural turpenes derived from lime, grapefruit, lemons, pine trees or synthetically-made equivalents. When a product claims to contain d-limonene and is 90% active, it is not necessarily a 90% d-limonene product. In contrast, Orange Tough 90 actually contains 90% d-limonene...is 100% active!

VERSATILE:

For the majority of cases, Orange Tough 90 is formulated to be used straight. However, unlike chlorinated solvents, Orange Tough 90 is water emulsifiable and may be diluted up to 1:1 with water for light cleaning and degreasing. Easy to apply, Orange Tough 90 may be sprayed, brushed or sponged on to soiled surfaces. Rinse clean with hot or cold water, pressure or steam. Orange Tough 90 dries film free after rinsing.

Reduces Hazardous Waste Haul Away! Many industrial solvents such as Trichlorethylene, Perchlorethylene, toluene and other toxic chlorinated solvents require costly hazardous waste haul away. Use of Orange Tough 90 reduces this extra expense. In addition, natural solvents are safer to use than straight solvents and require less special handling for disposal. If accidental spillage occurs, Orange Tough 90 does not negatively impact the environment to the degree of hazardous solvents.

SAFETY FEATURES:

Non-toxic. Non corrosive. Orange Tough 90 contains no petroleum distillates, no butyl or harsh caustics. Biodegradable. Phosphate free.

DIRECTIONS FOR USE:

Orange Tough 90 is highly concentrated and is designed to be used full strength. For economy and light cleaning, dilute with water up to 1:1. Use solvent-resistant plastic trigger sprayer or industrial stainless steel sprayer.

General Cleaning and Degreasing: Spray, brush, sponge or mop a liberal amount of Orange Tough 90 on the soiled surface. Wipe, pick up or rinse thoroughly. Use of Orange Tough 90 will dull floor seals, finishes and some types of protective coatings. Do not use to degrease concrete floors prior to application of New Generation 100 Epoxy Resurfacing System.

Engines and Machinery:

1. Spray, brush or sponge a liberal amount of Orange Tough 90 on the soiled surface. Best results are obtained if engines or machinery are warm when applying this product.
2. Allow five minutes to penetrate thoroughly. Extreme build-up may require more penetration time or second application.
3. Rinse with hose, pressure washer or steam equipment. A brush may be helpful in the absence of pressure equipment. Although hot water is preferable for rinsing, either hot or cold water is effective.

Cold Dip Tank and Parts Washing:

1. Immerse engine and machinery parts in Orange Tough 90.
2. Rinse clean with water. To avoid rust, a light coat of Spartan Lube-All is suggested after rinsing.

SPECIFICATION DATA:

Total Active Ingredients -- 100%

pH (Concentrate) -- n/a

Specific Gravity -- 0.860 @ 24°C/75°F

Density -- 7.15 lbs./gal. @ 24°C/75°F

Flash Point: Cleveland Open Cup--130°F; Tag Closed Cup--124°F

Solvents -- d-limonene

Viscosity -- Water thin

KB rating: 62.7 -- strong solvent ability

Stability:

- a. Shelf @ 24°C/75°F -- One year min.
- b. Accelerated @ 49°C/120°F -- 60 days min.
- c. Freeze/Thaw -- Will withstand a min. of 1 freeze/thaw cycle.

Miscibility-- Forms emulsion in all proportions of hot and cold water; emulsifies water insoluble solvents and oils.

Rinsability - Rinses completely with hot or cold water and leaves no film.

Biodegradable

Phosphate free

PACKAGING:

Orange Tough 90 is packaged in attractively lithographed, lined steel 55-gallon drums and 5-gallon pails. Label copy is provided in English and Spanish. Secondary labels are also available.

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.

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.