



**SmartWasher® Heavy Duty Grade
Cleaning Solution**

I. Product Description

CRC's **SmartWasher® Heavy Duty Grade Cleaning Solution** is an aqueous, pH neutral, VOC-free, non-corrosive, non-flammable, biodegradable cleaning fluid for use in the SmartWasher® Parts Washing System. The Solution works in conjunction with the Parts Washing System when warmed to 105° by the SmartWasher® units. The **Heavy Duty Grade Cleaning Solution** handles the removal of tough industrial soils as well as heavy grease, oil, carbon, sludge, dust and varnishes safely from all types of substrates.

The SmartWasher® System is a timely alternative to conventional petroleum-based solvent parts washers. SmartWasher® is a self-contained, self-cleaning system that is completely safe, nontoxic and generates no hazardous waste - without compromising cleaning ability. SmartWasher® uses the process of bioremediation - the accelerated breakdown of organic compounds such as grease, grime, varnish, oil, carbon and other heavy industrial soils through the use of microbes. The microbes, suspended in the **Heavy Duty Grade Cleaning Solution** that recirculates through the unit, literally eat their way through soils, converting them into harmless water and Carbon Dioxide (CO₂). The solution remains clean and usable, unlike traditional solvent-based systems where the solution becomes dirty and less effective over time. Disposal becomes a nonissue, as hazardous waste streams are eliminated. This process is nonhazardous, noncaustic, VOC free, nonflammable, and does away with the need for regulatory paperwork.

II. Applications

Recommended for parts cleaning in preventative maintenance and repair facilities, industrial manufacturing plants, automotive repair shops, metal fabricators, and anywhere that dirty, greasy, grimy parts need to be cleaned without regulatory or disposal issues. **SmartWasher® Heavy Duty Grade Cleaning Solution** is safe to use on all types of metal parts and will not damage incidental components such as rubber or plastic.

Type of Soils	Heavy Duty Grade Cleaning Ability
Motor Oil	Excellent
Bearing Grease	Good
Automotive Grease	Excellent
Impacted Grease	Good
Asphalt	Good
Creosote	Excellent
Resin Products	Excellent
Hydraulic/Transmission Fluid	Excellent

Type of Soils	Heavy Duty Grade Cleaning Ability
Fifth Wheel Grease	Fair
Crude Oil	Excellent
Solder & Flux	Excellent
Automotive Varnish	Fair
Burned-on Carbon	Fair
Cutting Oils	Fair
Ink/Toner	Good
Animal Fat	Fair

III. Features & Benefits

- **Heavy Duty Grade.** Removes tough industrial soils as well as lighter soils.
- **Reduces the Risk of Hazardous Waste Disposal.** SmartWasher® System generates no hazardous waste - eliminating reporting, disposal and regulatory paperwork in most cases.
- **Excellent Cleaning Ability.** Cleaning Solutions contain wetting agents that literally lift soils off of parts to be rinsed away.
- **Non-Corrosive.** Will not scratch or score equipment finish. Contains flash rust inhibitors.
- **Non-Flammable.** Aqueous formulation reduces risk of fire and provides increased user safety.
- **Neutral pH.** Nonacidic and noncaustic.
- **Contains No VOCs.** Free of volatile organic compounds which cause ground smog.
- **No Class I or II Ozone Depleting Chemicals.** Provides an alternative to 1,1,1-Trichloroethane products while complying with the EPA regulations on the use of ozone depleting chemicals.
- Available in **5 gallon pails** for use in the SmartWasher® Parts Cleaning System.

IV. Physical Properties

Flash Point (TCC)	None	Boiling Point	210°F
Odor	Slight sweet odor	Freezing Point	ND
Appearance	Translucent liquid	Solubility	Soluble in H ₂ O
Vapor Density	Not Determined	% Volatile	90%
VOC Content (Fed)	0.023 g/L	Specific Gravity	1.083
Sara Title III, Sect. 313 Chemicals	None	pH	7.0
Prop 65	None	Vapor Pressure	2.10mm @ 20°C

V. Specifications and Approvals

- When used as a system, SmartWasher® meets requirements for a Clean Air Solvent Certificate from the South Coast Air Quality Management District (SCAQMD).

VI. Performance Characteristics

Filtration*	user changeable without hand tools or special equipment
	user disposable
	microbe impregnated
	filtration to 50 microns
Microbe Treatment*	environmental-shock resistant
	preserved for 18 month minimum shelf life
	suspended ion filter with water-soluble material for release at a predictable rate
	Nonpathogenic

*Filtration and microbial properties indicative of total system use

VII. Directions

- Read the Operating Manual included with each SmartWasher® unit for installation information.
- Initial start-up requires 25 gallons of fluid and one filter in addition to the unit.
- Fluid replenishment is one 5 gallon pail every 6 to 8 weeks or as needed; filter replacement is one per month.
- Once installed, the SmartWasher® should be left plugged in and turned on, even when not washing parts. In the Standby/Ready mode the fluid will be kept at the recommended operating temperature. If the temperature falls below the recommended minimum, the system will still clean, but the remediation of the hydrocarbons by the microbe colony will slow down. The microbes will reactivate when the fluid temperature reaches the appropriate level.

VIII. Disposal

Disposal requirements vary by state and local jurisdiction. All used and unused product should be disposed of in conformance with local, state and federal regulations.

IX. Special Usage Warnings

General

Avoid direct skin contact or inhalation. Allergic reactions to industrial products may occur in some individuals. It is recommended that safety glasses and rubber gloves be worn when handling industrial use products.

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