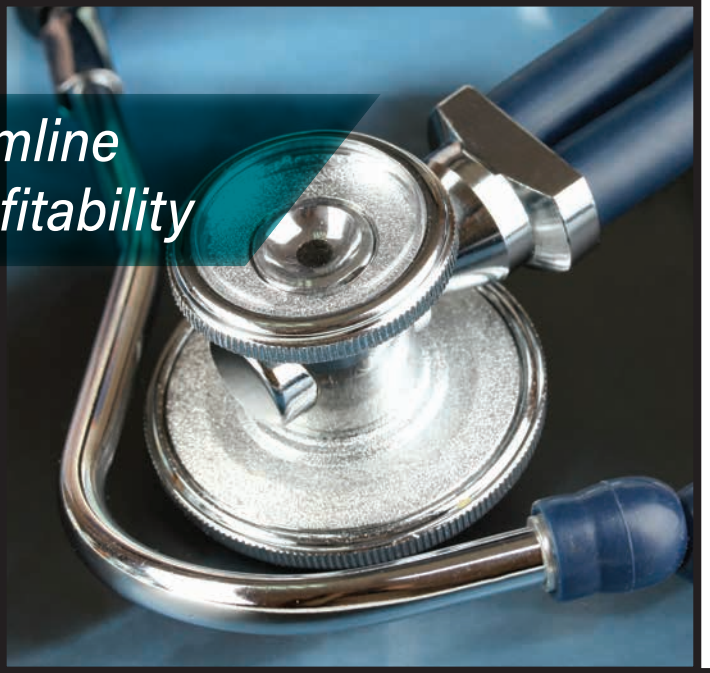




Master Fluid
SOLUTIONS®

*Improve Performance, Streamline
Production, Enhance Profitability*

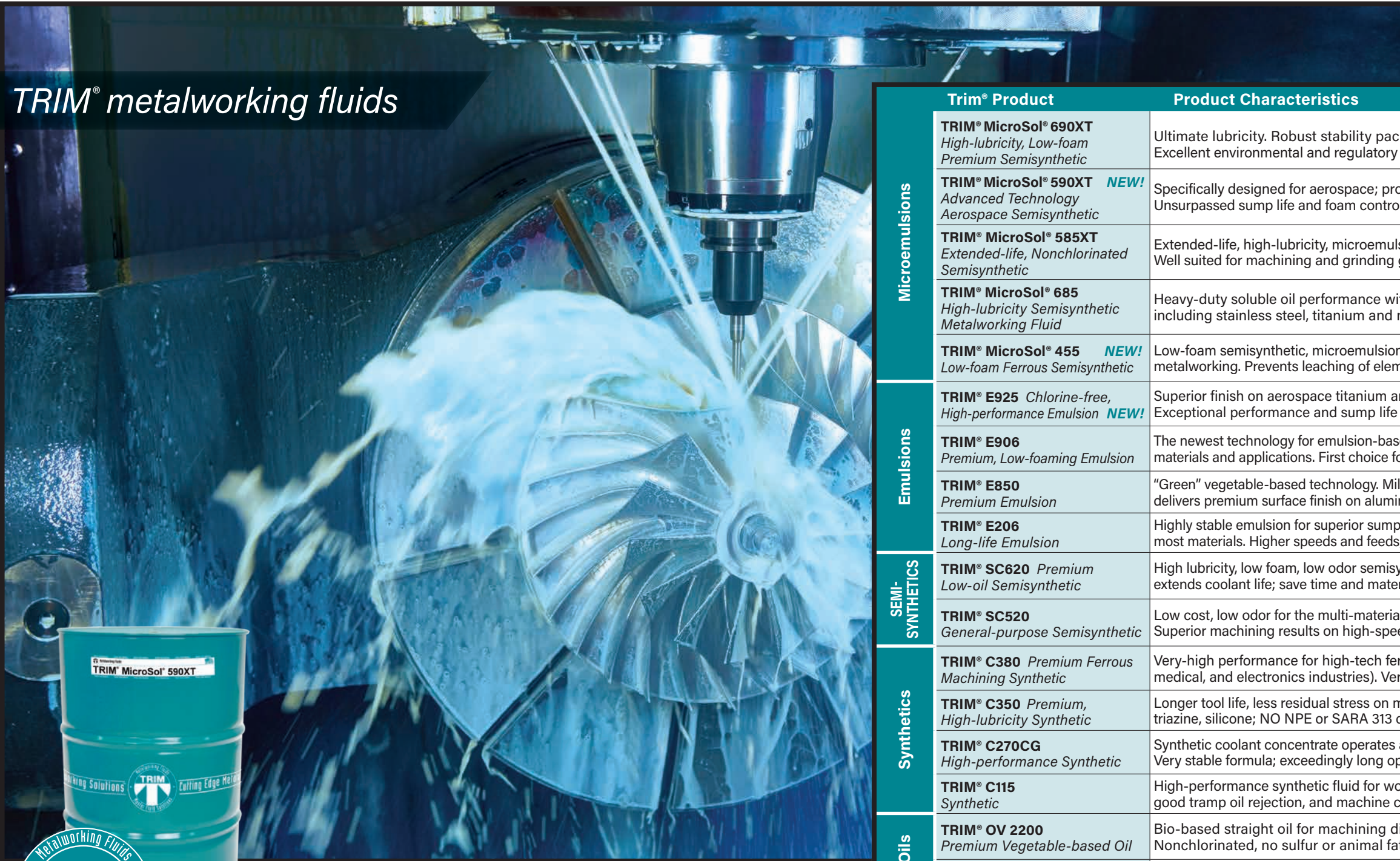


INNOVATIONS
FOR LONGER SUMP
AND TOOL LIFE

Achieve cutting edge production with TRIM® cutting and grinding fluids

- > significantly reduces fluid and tool costs
- > reduces downtime and labor
- > lowers disposal costs
- > assures code compliance
- > excellent operator acceptance
- > a safer workplace for employees
- > immediate savings to the bottom line

TRIM® metalworking fluids



	Trim® Product	Product Characteristics
Microemulsions	TRIM® MicroSol® 690XT <i>High-lubricity, Low-foam Premium Semisynthetic</i>	Ultimate lubricity. Robust stability package for long life. Exceptional foam control. Excellent environmental and regulatory profile. Boron free and nonchlorinated. Multi-metal compatible.
	TRIM® MicroSol® 590XT <i>NEW!</i> <i>Advanced Technology Aerospace Semisynthetic</i>	Specifically designed for aerospace; protects sensitive alloys from surface stains and corrosion. Maximum lubricity. Unsurpassed sump life and foam control. No boron or DCHA, nonchlorinated, needs no tankside additives.
	TRIM® MicroSol® 585XT <i>Extended-life, Nonchlorinated Semisynthetic</i>	Extended-life, high-lubricity, microemulsion coolant delivers excellent cooling and mechanical lubricity. Well suited for machining and grinding gray iron, mixed metal situations, titanium and aluminum alloys.
	TRIM® MicroSol® 685 <i>High-lubricity Semisynthetic Metalworking Fluid</i>	Heavy-duty soluble oil performance with the cleanliness of a semisynthetic. For a very wide range of materials including stainless steel, titanium and nickel-based alloys, composites, and peek.
Emulsions	TRIM® MicroSol® 455 <i>NEW!</i> <i>Low-foam Ferrous Semisynthetic</i>	Low-foam semisynthetic, microemulsion for high-volume cast iron, ferrous, and some aluminum and nonferrous metalworking. Prevents leaching of elemental iron. Eliminates clinkering and oxidation of ferrous micro fines.
	TRIM® E925 <i>Chlorine-free, High-performance Emulsion</i> <i>NEW!</i>	Superior finish on aerospace titanium and aluminum alloys, exotics, stainless, and high tensile strength steels. Exceptional performance and sump life with more lubricity to the point-of-cut. Nonchlorinated.
	TRIM® E906 <i>Premium, Low-foaming Emulsion</i>	The newest technology for emulsion-based cutting. Consistent machining and grinding for a wide range of materials and applications. First choice for aerospace, automotive, energy manufacturers, and specialty job shops.
	TRIM® E850 <i>Premium Emulsion</i>	"Green" vegetable-based technology. Mild contact nature. Nonchlorinated. Low initial-charge odor. Excellent lubricity delivers premium surface finish on aluminum alloys, exotics, stainless, and high tensile strength steels.
SEMI-SYNTHETICS	TRIM® E206 <i>Long-life Emulsion</i>	Highly stable emulsion for superior sump life and low mist/low carryoff. Excellent for high-speed milling and turning in most materials. Higher speeds and feeds, long sump life, and low use rates for higher productivity and profits.
	TRIM® SC620 <i>Premium Low-oil Semisynthetic</i>	High lubricity, low foam, low odor semisynthetic for high-performance machining and grinding. Rejects tramp oil and extends coolant life; save time and material. Finishes rival those of soluble oils, multi-metal compatibility.
	TRIM® SC520 <i>General-purpose Semisynthetic</i>	Low cost, low odor for the multi-material, multi-operational shop. Controls built-up edge, improves tool life. Superior machining results on high-speed milling and turning. Controls chip welding on soft, gummy materials.
Synthetics	TRIM® C380 <i>Premium Ferrous Machining Synthetic</i>	Very-high performance for high-tech ferrous materials, stainless steel and Inconel® (widely used in aerospace, medical, and electronics industries). Very high levels of usable lubricity at the point of cut. Nonchlorinated.
	TRIM® C350 <i>Premium, High-lubricity Synthetic</i>	Longer tool life, less residual stress on machined parts. PRTR compliant; free of chlorine, phenol, nitrite, copper, triazine, silicone; NO NPE or SARA 313 chemistry. Rust protection on aluminum, titanium, nickel, and steel alloys.
	TRIM® C270CG <i>High-performance Synthetic</i>	Synthetic coolant concentrate operates at very high fluid pressures and volumes with little or no foam. Very stable formula; exceedingly long operational life with consistent performance. Nonchlorinated.
Straight Oils	TRIM® C115 <i>Synthetic</i>	High-performance synthetic fluid for working cast iron and mild steels; provides excellent cooling and chip settling, good tramp oil rejection, and machine cleanliness while leaving a protective film on the machine tool.
	TRIM® OV 2200 <i>Premium Vegetable-based Oil</i>	Bio-based straight oil for machining difficult alloys and steels. Environmentally friendly and V.O.C. free. Nonchlorinated, no sulfur or animal fat. Reduces unpleasant odors and residues.
	TRIM® OM 287 <i>Versatile Cutting Oil</i>	Contains chlorine and inactive sulfur for multi-metal capability. Works well in modern higher speed "Swiss" machines and machining centers. Very easy to wash off.
	TRIM® OM 303 <i>Nonchlorinated Cutting and Lubricating Oil</i>	Nonchlorinated medium- to heavy-duty straight oil. Works well in screw machines, roll form threading, and other high-lube operations.

*Rely on hard-working
Master STAGES™ to clean and protect*

- > spray, immersion, or ultrasonic parts cleaning
- > multi-metal operations
- > metalworking fluid removal
- > cleaners with built-in and water-based RP's
- > vibratory finishing
- > reduce disposal costs
- > immediate savings to the bottom line

Master STAGES™ cleaners



	Master Stages™ Product	Product Characteristics
Parts Cleaners	Master STAGES™ CLEAN 2017 <i>Economical, Heavy-duty Spray Cleaner</i>	Removes heavy soils and oily residue from ferrous and magnesium parts. Often used in rebuild operations and for cleaning up cast iron, stamped or drawn steel parts, or removing heavy RP coatings.
	Master STAGES™ CLEAN 2029 <i>"One Step" Parts Washing Fluid with Corrosion Inhibitor</i>	High detergent, low foam, and good in-process rust prevention with just "One Step." Mild pH for a safer work environment. Use at 3%-5% and 120°F-180°F (49°C-82°C) for best results and lowest foam.
	Master STAGES™ CLEAN 2115AL <i>Low-foam Spray Washing Compound</i>	Aluminum-compatible, high-performance, low-foam synthetic washing compound; for very high-pressure spray washers, de-burring, and water jet cutting. Exceptional sump life, foam control, and tramp oil rejection.
	Master STAGES™ CLEAN IP 2019s <i>Silicated Low-foam Cleaner</i>	Very low foaming, concentrated. Removes straight oils and coolants from steel, cast iron, and most aluminum parts. An excellent cleaner and very economical. Rejects oil for easy skimming or centrifuging to extend bath life.
	Master STAGES™ CLEAN 2030 <i>Ultrasonic and Immersion Washers</i>	Concentrated, very high-performance cleaner for washing all metals including brass, copper alloy, and aluminum in ultrasonic or immersion washers. Oil-rejecting properties for longer bath life and economical operation.
	Master STAGES™ CLEAN 2430 <i>Near-neutral Washing Compound</i>	Mild pH, highly concentrated, washing compound/corrosion inhibitor for aluminum and steel alloys, cast iron, copper, brass, bronze, and zinc. Great detergency and long life in single and multi-stage spray washers.
Corrosion Inhibitors	Master STAGES™ RPO 6BF <i>Barium-free, Low-odor, Corrosion Inhibitor</i>	Nonstaining, water displacing, thin-film rust preventative for use on a variety of metals, bearings, and precision parts. Six- to eight-months protection for indoor and in-process parts in storage, as well as parts in transit.
	Master STAGES™ NOCOR® E6 <i>Low V.O.C. Emulsion, Corrosion Inhibitor Concentrate</i>	Super-concentrated, barium-free, water-based emulsion protects steel and ferrous metals for up to six months indoors at dilutions of 4%-16%. Low V.O.C., economical. Moderate pH, very low odor, and nonflammable.
	Master STAGES™ NOCOR® S2 <i>Water-soluble Corrosion Inhibitor</i>	Use NOCOR S2 at 3%-7% in water for up to two months indoor rust prevention. Barium free, low V.O.C., and economical to use. Can be used in rinse stage of parts washers.
	Master STAGES™ NOCOR® O2 <i>Barium-free, Low-odor, Corrosion Inhibitor</i>	Barium-free, nonstaining, water-displacing multi-metal RP with high flash point. Dip, spray, brush, flow coat, or wipe application on ferrous/mixed metals. Up to two months indoor rust prevention.
Maintenance cleaners	Master STAGES™ Whamex™ <i>Machine Tool Sump and System Cleaner</i>	Safe, fast-acting concentrated formula saves machine cleaning downtime while removing the oily residues, scums, and insoluble soap deposits that reduce coolant life. For use with emulsions and semisynthetics.
	Master STAGES™ Whamex XT™ <i>Low-foam Machine Tool Sump and System Cleaner</i>	Same safe, fast-acting concentrated formula as Whamex yet made for synthetics and semisynthetics. Nonfoaming; saves machine cleaning downtime, removes oily residue and scum, and extends coolant life.
	Master STAGES™ Task2™ Grime Fighter	Super-concentrated, industrial strength cleaner/degreaser. NO butyl, caustic, silicate, phosphate, nitrite, phenol, or borate. Safe on all metals. Full strength or dilute up to 100:1. Certified "Readily Biodegradable" by OECD. Pratt Whitney Aerospace Approval PMC 1247-1. Handy spray bottle.
	Master STAGES™ Task2™ All Purpose Cleaner	Removes heavy, oily, or greasy soils from all common surfaces. NO butyl, caustic, silicate, phosphate, nitrite, phenol, or borate. Safe on all metals. Use full strength or dilute. Certified "Readily Biodegradable" by OECD. Pratt Whitney Aerospace Approval PMC 1247-1. Handy spray bottle.
	Master STAGES™ Task2™ Glass Cleaner	Cuts through tough shop soils to clean glass, ceramics, stainless steel, chrome, and plastic surfaces. Free of butyl, caustic, silicate, phosphate, nitrite, phenol, or borate. Safe on all metals. Handy 1-quart spray bottle.
	Master STAGES™ CLEAN F2™ <i>Non-butyl Floor and Multi-purpose Cleaner</i>	Strong and super concentrated for use on floors and hard surfaces. Very economical to use and safe for human contact at 20% concentration!
	Master STAGES™ CLEAN AMO™ <i>Natural-solvent Cleaner and Degreaser</i>	A maize 'N Orange.™ Natural solvent cleaner can be mixed with water and used for a wide range of industrial cleaning jobs. Outstanding at removing oily, greasy, or resinous soils at room temperature.

Reduce costs dramatically with XYBEX® fluid recycling equipment

- > significantly reduces coolant usage
- > reduces downtime, repair costs, and labor
- > greatly reduces disposal fees
- > easily pays for itself with cost savings

XYBEX® fluid recycling equipment



Customers who recycle their fluids realize a 40%–80% reduction in coolant and fluid purchases.



120V Electric Yellow Bellied Sump Sucker™
Cleans virtually any machine tool sump quickly by filtering sludge and chips from coolant. Available in multiple configurations, sizes, and power sources.



Drum Top Sump Cleaner™
Economical vacuum unit which converts an existing open-top drum into a powerful machine tool sump cleaner.



SCROUNGER® Jr. Oil Skimmer
Effectively removes troublesome tramp oil from coolant for longer sump and tool life, better surface finish, and cleaner machines and workplace.



UNIMIX™
Water-driven, positive displacement proportioner dispenses coolant concentration on demand. Option for alkaline parts washing.



MCC Reversible LIQUI-VAC™
Sucks up tramp oils, used oils, and waste coolants— fast and simple. Can discharge fluids from drum to a separate container.



Mini Dos
Compact, low- to mid-flow, fluid-driven proportional injector. Segregates harsh chemicals from critical internal components.



The Whammer™
Durable, low-cost dispenser for Master STAGES™ maintenance cleaners produces foaming stream for cleaning machine tools or large clean-in-place parts.



Palm Abbe® Digital Refractometer
For fast, accurate, laboratory-precision readings in degrees Brix. Self-calibrating to water, ready to use in seconds. Easy-to-read display.



Refractometer
Optical refractometer for quick fluid sample readings.

Contact us.

Let us create a detailed, facts-based, customized analysis to prove just how much we can save your operation in time, material, and cost, while improving quality, with the premium coolant just right for your production.

For prices or additional information, contact your Master Fluid Solutions Representative.



www.masterfluidsolutions.com



©2017-2019 Master Fluid Solutions. TRIM, XYBEX, SCROUNGER, MicroSol, and NOCOR are registered trademarks of Master Chemical Corporation d/b/a Master Fluid Solutions; A maize 'N Orange, CLEAN AMO, CLEAN F2, Master STAGES, Li'L Sucker, UNIMIX, MCC Reversible LIQUI-VAC, Master Mix, TASK2, Whamex, Yellow Bellied Sump Sucker, and The Whammer are trademarks of Master Chemical Corporation d/b/a Master Fluid Solutions. 2019-05-14