

If it seems too good to be true ... it's definitely Clean F2

It's hard for us to believe, but there are still metalworking facilities not using Clean F2. Either they think it's too good to be true, or they just haven't heard about it yet.

It's good and true

The fact is, Clean F2 is the best cleaner value around – and for some very good reasons:

- Great cleaning power and more user-friendly than anything else available (except TASK2™)
- Attractively priced, because a little goes such a long way – unlike the weak, “blue water” products
- Replaces floor cleaners and other hard-surface cleaners with one economical, multi-purpose product
- Specifically formulated for the oily soils in a metalworking shop environment by a company that knows and understands industry needs
- And, it's butyl-free!



Where you come in

The experience of one savvy Master Chemical distributor is an example of what you can do. At a customer's automotive parts plant in Tennessee, where they were using Formula 409® for spray bottle cleaning, Simple Green® for floor machines, Easy-Off® for mop buckets, and three additional products for general purpose cleaning, our super-smart distributor introduced Clean F2 and saved them a bundle of money.

Clean F2 at 20 percent replaced the Formula 409. Undiluted Clean F2 replaced the Simple Green (cleaning better and costing 20 percent less) and the Easy-Off (saving 40 percent in cost). As a result, customer cleaner purchases for the year were reduced more than \$13,000. In addition, ordering was simplified and inventories were smaller, which required less warehouse space.

But our inspired distributor wasn't finished. He installed four Master Chemical Skrambler™2 dual-ratio mixers to save the customer labor and ensure concentration control.



master chemical corporation

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master chemical
CLEAN Sheet



We'd like to hear from you

Let us know that you are reading and finding information in the Clean Sheet useful.

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EPA issues EB alert

EPA says EB is a “toxicological concern”

The EPA in Federal Register vol. 67, #46/ Friday, March 8, 2002, lists 2-butoxyethanol, also known as “ethylene glycol monobutyl ether,” “Butyl Cellosolve,” or “EB” for short, among a group of substances “determined to be animal carcinogens.”

The EPA notice covers disinfectants and pesticides, but EB is also one of the main ingredients found in many floor and “hard surface” cleaners. A team of EPA health scientists has determined that EB is a chemical “for which there is suggestive evidence that raises concern for carcinogenic effects.”

A review of MSDS sheets obtained directly from the manufacturers in April 2002 found industrial maintenance cleaners containing large doses of EB include:

- ❖ Simple Green® – 6 percent 2-butoxyethanol (EB)
- ❖ Crystal Simple Green® – 6 percent 2-butoxyethanol (EB)
- ❖ Formula 409® – 5 percent 2-butoxyethanol (EB)
- ❖ Castrol Super Clean® – 6.5 percent 2-butoxyethanol (EB)

The list goes on and on.

Customers need to read the fine print. A number of manufacturers try to hide the fact that their products contain EB. For example, a bottle of EB-based green cleaner purchased this week at a local store makes no mention of EB on the label. Other manufacturers will use one of the many alternate names (there are even more than listed above). Fortunately, since EB has been recognized as a pollutant for many years, manufacturers are required to list EB content on the MSDS, where it appears as CAS number 111-76-2.

Of course, the people who make and use EB are contesting the EPA opinion. But why use an ingredient with questionable health effects when there are effective alternatives? It may be that these manufacturers haven't kept up with the latest developments in cleaner technology. The EB stuff was okay 20 years ago, and as long as people keep buying it, why invest in research to make something new, better and probably healthier? Another reason is that EB is cheap and reasonably effective.



SCIENCE CORNER

Master Chemical has done the research work and proved that it can make even better products without EB. Every Master Chemical cleaner product is completely EB-FREE – CLEAN F2, TASK2, Skramex, Whamex ... **every** Master Chemical product.

Anyone using a cleaner product containing EB should be learning about EB-FREE alternatives from their Master Chemical representative. Not only are the Master Chemical products safer, but they also work better and are priced competitively.

Did you know? Master Chemical's first cleaner product, WMMC, was introduced in the early 1960s.



A bronze bust of Clyde and Marian Sluhan, created by Petersburg, Michigan, sculptor, Lynn Hayes, was unveiled at a reception to mark Master Chemical's 50th anniversary.

Marking 50 years

The 50th anniversary of Master Chemical's founding was observed with a reception on November 13, 2001. To commemorate the corporate milestone, a bronze bust of Clyde and Marian Sluhan was installed in the courtyard of the Perrysburg headquarters. Distributors, suppliers, current associates and retirees attended the reception during which a pear tree, a gift from Master Chemical associates, was planted and dedicated.

Janet Podiak, administrator – corporate communications, working with Mrs. Sluhan, assembled a group of people with stories to share about the Sluhans and the early years of Master Chemical. Among the guests who spoke at the reception were: Art Larman, Rotem Industrial – distributor; Jim Gahwiler, Decatur Custom Tool – distributor; Ned Barnes, Paramount Printing – supplier; and Steve Higley, AmeriSteel BrightBar – board member. The next generation, Bill Sluhan, Sally (Sluhan) Wright and Elliott Sluhan, each spoke about their parents' vision, dedication and hard work, which made Master Chemical what it is today, and their own vision and hopes for Master Chemical in the future.

Proclamations and congratulations were bestowed by Jody Holbrook, mayor of Perrysburg, and Robert Latta, Representative Ohio Congress.

A 50th anniversary video tribute to Clyde Sluhan, produced by Elliott Sluhan and Jeremy Knoff, was premiered at the event. Copies of an anniversary brochure are available from mailroom@masterchemical.com.

Not-yet-ready-for-prime-time

W9813-57 (Emulsion RP)

This new oil-based emulsion RP is truly the best of both worlds. The oil will coat the metal, while the water phase carries extra corrosion inhibitors that are deposited on the metal surface after the water evaporates. This product is very mild, with low odor and moderate foaming characteristics, making it perfect for the last stage of a multi-stage dunk washer or as an RP dip in individual cell manufacturing. WB 9813-57 will provide three to six months of corrosion protection for indoor storage of cast iron and steel parts. Dilutions can range from 4 percent to 16 percent.

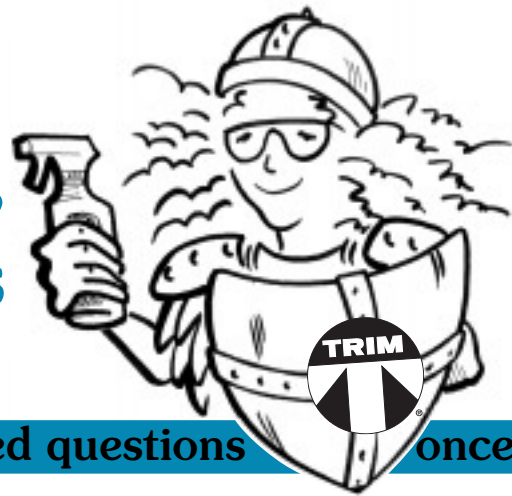


WB1303-77 (Aluminum-safe, high-powered cleaner)

Do you machine aluminum, zinc or yellow metals and have really dirty shop floors? Or, do the tire marks from forklifts make your aisles look like pit row at Daytona? Then Master Chemical has the cleaner for you. WB1303-77 in your power floor scrubber will work wonders – safely. Here's why: when nonferrous chips are mixed into a high-powered caustic floor cleaner, hydrogen gas is a likely result. Which means, using a caustic cleaner in a power floor scrubber could create an explosive "dirty" tank. You can eliminate this danger by using Master Chemical's premium cleaner, Clean F2, which is noncaustic. Or, "go for the gusto without the gas" by giving the higher-pH WB1303-77 a try.



Dear Xena, Warrior Princess of Cleaners



Answering frequently asked questions once and for all

Dear Xena:

My cleaning solution is lasting only a week or so – sometimes only a few days. I'm washing straight cutting oil from steel widgets. How can I reduce the cost of my cleaning operation, without sacrificing results? Is there a magic potion?

A Salem reader

No need to sacrifice results (or small animals). I'll bet my crystal ball that your bath life is directly related to production. Does the bath wash out as production increases? I also suspect the wrong cleaner chemistry for the application. My guess is that you are using a classic emulsifier-type cleaner. Generally, if you are cleaning straight oil, it's best to choose a cleaner that will de-mulsify (split) the oil rather than emulsify it. When the cleaner emulsifies the dirt (in this case, straight oil) it becomes part of the cleaner. Eventually, your system will reach a point where you have more oil in the cleaner than cleaner in the cleaner. This is what leads to short bath life and dirty parts.

The best solution is to change cleaner chemistry and incorporate some recycling. Choose a good oil-splitting cleaner (such as Clean 243) and get a Scrounger®, Scrounger® Jr. or a Master Coalescer to remove the oil that pops up to the top of the bath. If the system is large, a centrifuge or membrane filtration is a better option.

One word of caution – do not put an oil-splitting cleaner in a dunker-style washer – many a clean part has been dragged through the resulting oil slick, only to be re-soiled!

Dear Xena:

I have parts that are coming out of the washer and rusting within a day or two. This particular charge is about three months old. I have checked the concentration of my aqueous cleaner, and the refractometer tells me I have a 5 percent solution of cleaner. This is within the supplier's recommended concentration. What's wrong with my system?

Seeking answers in Appleton

You checked your concentration by refractometer? Fifty dunks in the agi-lift for you! (In Salem, heretics were burned at the stake!) Refractometers are meant for coolants and fresh charges only. The problem with using a refractometer on aqueous cleaners is that most of the components of aqueous cleaners don't show up on a refractometer. The false high refractometer reading in an old charge is more than likely the dirt you've washed into your bath. You don't really have 5 percent cleaner in your bath. What you're seeing is corrosion due to running so lean on the clean!

Cleaner concentration can be checked in several ways. Titration is my favorite – because you make pretty colors. The art of titration is not difficult. Basically, you take a known amount of cleaner from the sump and neutralize it with very diluted acid to get to a particular color. Once the color is achieved, multiply the amount of diluted acid used by a factor (found on all good D&I Sheets) to get the percent of concentration. This, I think, is the most reliable method.

Conductivity is another way of checking concentration for many cleaners and is also quite dependable. Contact your Master Chemical representative for information.

Whamex™ and Common Sense

When you have a product that's as effective and versatile as Whamex, people constantly are seeking new and better ways to use it. For example, it's been rumored that Whamex grows hair on billiard balls. Others swear washing your car with Whamex will get you over 100 mpg. And there have been reports of aliens, wearing "Whamex Wizard" shirts and hats, landing in Tennessee.

We can assure you that only the last item is true. However, it has come to our attention that a few folks have used Whamex in applications for which it was not intended, and some of these uses can cause problems. So, following is a review of recommended Whamex uses and nonuses.

Whamex is designed to clean:

- machines, flumes, and central systems in a traditional, eight-step machine cleaning process.
- machines, flumes, and central systems by running in the coolant up to 24 hours before the initial pump-out.
- the exterior of machine tools as a part of a DCR (Dump, Clean and Recharge).

With caution, Whamex has been used successfully to:

- restore emulsion stability in some split soluble or semisoluble systems. This action should be taken only as a last resort, and then only with the expectation that the system will have to be dumped soon. *Using too much could cause irritation, loss of copper-Kathon biocides, emulsification of tramp oils and foam.*
- wash off graphite smut from "dirty" cast iron parts in "dunker" washers, while providing short-term rust protection. *The flip side of this is a tendency to foam mightily in spray washers.*
- clean floors. *It works great, but it's kind of expensive for this application, unless you are in the middle of a total shop/machine cleaning.*

Unless your Master Chemical district manager says otherwise, avoid using Whamex as:

- a tank-side or a recycling additive. *Using too much could cause irritation, foam, emulsification of tramp oils and loss of copper-Kathon biocides.*
- a "problem preventer" – *for the same reasons as above.*
- a car wash for alien spaceships. *This is OK if the aliens are wearing Whamex Wizard shirts or hats.*