

Compounds

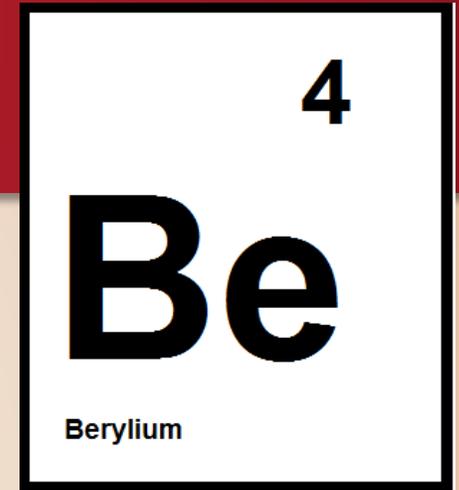
and their very important qualities

FAQ's

- What are Compounds?
- What do they do?
- Why should my customer buy it?
- What is in it?
- Why do I want to sell it?
- How do I sell it?
- Which compound do I use?
- What do I do with it when its spent?

WHAT ARE COMPOUNDS?

Compounds are one of the elements of the finishing process. Their role may be as simple as a process aid or they may be the backbone of the finishing process.



5 Elements of finishing: Parts, Machines, Media, Compound, Waste

WHAT DOES IT DO?

Compounds provide many attributes to the process, and they differ based on the type of process.

- . Mass finishing processes
- . Polishing and Buffing
- . Fixtured or non-fixtured
- . Parts washing – spray and dip washing.



WHAT DOES MASS FINISHING COMPOUND DO?

- Wet the surface of parts and the media
- Clean/suspend oils and soils
- Provide lubricity/foam
- Provide cooling
- Control pH
- Control water hardness
- Remove corrosion and scale
- Control part color
- Inhibit corrosion



WHAT DO BUFFING & POLISHING COMPOUNDS DO?

- PROVIDE ABRASIVE IN THE PROCESS
- PROVIDE ADHESION OF THE ABRASIVE TO THE MEDIA
- PROVIDE LUBRICITY IN THE PROCESS



WHAT DO PARTS WASHING COMPOUNDS DO?

- Wet the surface of the parts
- Clean / suspend oils and soils
mechanisms of cleaning
- Control pH
- Control water hardness
- Remove corrosion
- Inhibit corrosion

Cleaning Mechanisms

- Wetting
- Sequestering
- Emulsification
- Saponification
- Solubilization
- Displacement



WHY SHOULD MY CUSTOMER BUY IT?

- They don't have to.
- All of the attributes discussed earlier result in a consistent process
- Some processes run, but just "ok" without compound

Example: Aluminum parts running with UF plastic media

pH from media consistent around 4-5,

Foam from the media monomer cushions the mass

Problem: rinsability w/o surfactants residue does not rinse well

WHAT IS IN COMPOUND?

Depends on the type of compound

Mass finishing and Parts Washing

water and other solvents

builders: acid/alkali

pH buffers

surfactants

corrosion inhibitors

dyes

secret ingredients

Polishing and Buffing

abrasives

binders/tackifiers

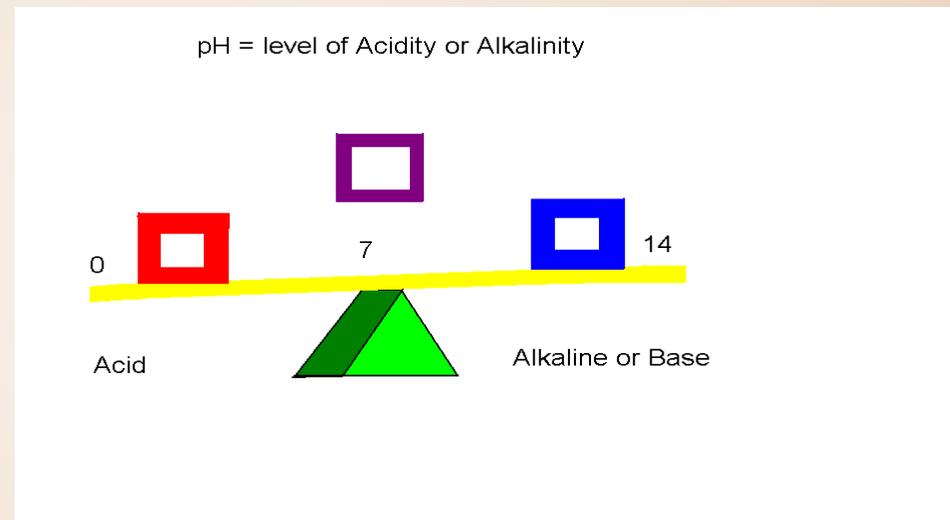
lubricants

fillers



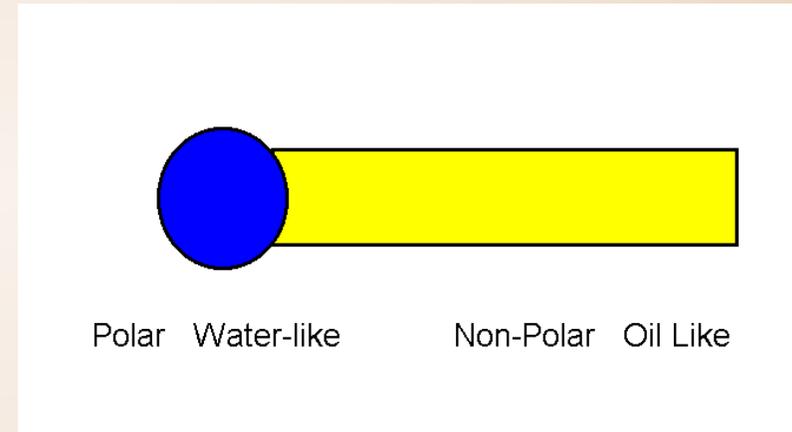
What is pH?

- pH range 0-14 in water systems.
- Acid < 7 < Base/Alkaline
- Stomach Acid 0.8
- Tabasco™ 1.8
- Cola 2.4
- Coffee 4.8
- Eye Drops 7.2
- Laundry Soap 9.5
- Ammonia 11.9
- Drain Cleaner 14



SURFACTANTS AND CLEANING

- Oil and Water Don't Mix
- Surfactants Bridge the Gap Between Oil and Water.
- Provides Cleaning Lubricity and Foam



WHY DO YOU WANT TO SELL IT?

- YOU WANT TO SELL IT, BECAUSE IM A REALLY NICE GUY, AND THE COMPOUND BUSINESS MIGHT BE THE ONLY REASON Mr. HAMMOND KEEPS ME AROUND

WHY YOU REALLY WANT TO SELL IT?



1 x 330 gallon tote at \$7.00/gal
~ \$450

Gemini 4 or HR-5 is about 65
gallons/ year (8-5-52)
\$68.25

HOW DO I SELL IT?

- Technical process based selling
- Value selling
- Commodity selling
- Niche selling



TECHNICAL PROCESS BASED SELLING

- Study the customer's process/ requirements
 - burr condition, surface finish, contaminants, cleanliness specs
- Up stream operations-how the part gets made
- Down stream operations
 - what happens next, clean, fab, machine, weld, paint, plate, package
- What will happen with the waste products

- PICK THE BEST PRODUCT BASED ON REQUIREMENTS

VALUE SELLING

- Show the Customer how you can save him Money.
Cheapest is not always the best.
- Our product is formulated to be used at 1 oz/gal or 0.75%
- Many competitors provide product at 2-3 % usage (3.5-4oz/gal)
- Simple math

1 gallon x .75% x \$8.00= \$0.06/gallon

1 gallon x 2.5% x \$4.00= \$0.10/gallon

NOT ALWAYS EASY TO GET THE CUSTOMER TO LISTEN

COMMODITY SELLING

- In instances where value selling doesn't work
- Price matching
- You get what you pay for: can not have the same level of service
- Sometimes you have to walk away
- Liquabrite B, C, D & I series and Liquabrite 2000 & 3000 series cover market needs.

NICHE SELLING

- Developing a product to fit a specific need-Custom formulations

- Hybrid compounds

10 variants of XL-309

XL-309, XL-309C, XL-309LF, XL-309LF2, XL-309LFX, XL-309NP,
XL-309NK, XL-309BW, XL-309SW, XL-309X, XL-309SC

9 variants of L-980

L-980, L-980LF, L-980HA, L-980HF, L-980-50, L-980I,
L-980ILF, L-980ND, L-980SC

WHICH ONE DO I SELL?

There are over 3000 formulations on the books
400 are active- we have made or sold them in the past year

Which ones are the “go-to” compounds for an application?

Depends on the application. Sales Data shows the following:

Acid Burnishing with Steel /Stainless media

Steel/Stainless: L-543, XL-580, XL-1262I

Copper & Brass: L-543, L-552, XL-1262I

Aluminum: XL-309, L-552, L-547

Zinc: L-552, XI-309

Silver & Gold: L-547, L-555

Multi-Metal: XL-309, L-547, XL-1307I

ALKALINE BURNISHING WITH PORCELAIN / NA MEDIA

Steel/Stainless: L-980, XL-499

Copper & Brass: L-980, L-28B

Aluminum: L-980, XL-499

Zinc: L-980, XL-499

Silver & Gold: L-980, L-28B

Multi-Metal: L-980, XL-499, L-28B

ALKALINE DEBURRING AND PREPLATE FINISH

Steel/Stainless: L-638, L-620, L-391

Copper & Brass: L-127, L-161

Aluminum: L-127, L-161

Zinc: L-127, L-161

Silver & Gold: L-127, L-161

Multi-Metal: XL-528, XL-1277, XL-1376

ACID DEBURRING AND PREPLATE FINISH

Steel/Stainless: XL-1307I, XL-309

Copper & Brass: L-552, XL-309

Aluminum: L-552, L-309

Zinc: L-552, XL-309

Silver & Gold: L-552

Multi-Metal: XL-1307I, L-552, XL-309

REFINEMENT/ACCELERATED FINISHING

- SOFT CARBON STEEL: CSA-550
- HARDENED CARBON STEEL: CSA-597, CSA-550
- MAGNETIC STAINLESS: SSA-200, CSA-550
- ALUMINUM: AA-1240

INHIBITION /RUST PROTECTION

- Steel: L-656, L-326, XL-1376, L-980
- Copper, Brass & Zinc: L-78, L-79, L-980
- Aluminum: L-78, L-980
- Multimetals: XL-528, L-980

DESCALING

- FERROUS METALS : SSB, XL-414, L-543
- COPPER & BRASS: XL-1300GE, XL-414,
- TARNISH REMOVAL : XL-1420
Cu, CuZn, CuZnNi, CuSn, Ag, NiAg

SPRAY WASH PRODUCTS

FERROUS

WASHING: RTC-130, RTC-132
L-2746I, CMPLXBL-SP
INHIBITING: RTC-192, L-3932N

NON FERROUS

WASHING: RTC-120, L-3746
XL-1417, CMPLXBL-SP
INHIBITING: RTC-180, XL-78

STAINLESS

WASHING: L-2746, XL-1417,
RTC-130, CMPLXBL-SP

DRY FINISHING MEDIA COB, WALNUT, CUBES

CUTTING COBS

FERROUS/ SS: CB-15, CB-20WSC

NON-FERROUS: CB-13

POLISHING COBS:

FERROUS/ SS: CB-14, CB-16, CB-20, CB-30

NON-FERROUS: CB-16, CB-26,

GO TO COMPOUNDS

The previous products are the “go to” compounds, this is where you start.

These compounds represent roughly 50% of our compound production

- 1) these 42 compounds out of 400 active, approx 10% cover majority of volume.
- 2) the remaining 50% of our volume are niche compounds designed to meet specific customer needs.

WHAT DO I DO WITH IT WHEN IT IS SPENT?

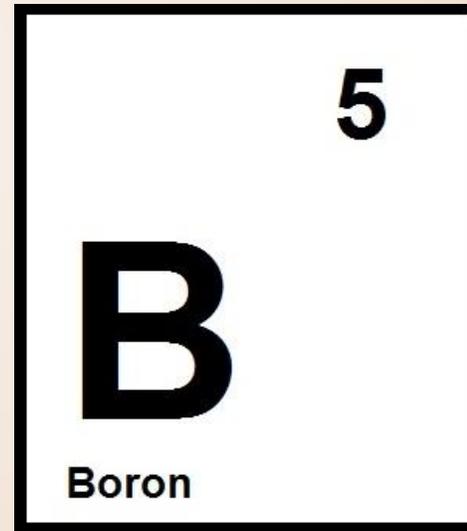
- WASTE MANAGEMENT IS THE FIFTH ELEMENT OF MASS FINISHING

Three most popular methods:

Settling Tanks

Centrifuge Systems

Chemical Treatment

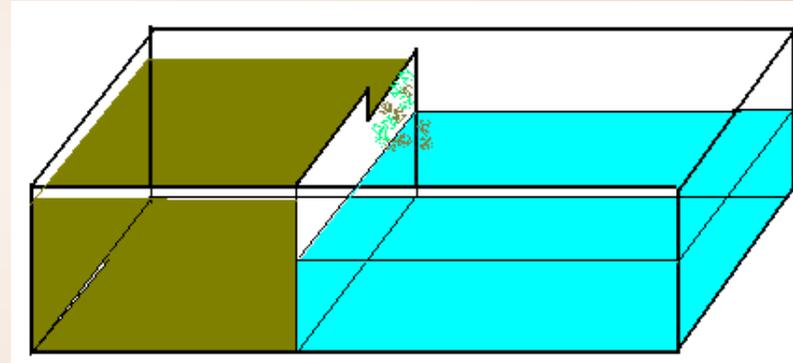


Settling tanks

- Standard designs from 35 gal, 150 gal, 225 gal, and 700 gal



ROTO-SETTLE 225



CENTRIFUGE SYSTEMS

- AVAILABLE AS STAND ALONE UNITS 150 GAL, 225 GAL, AND 700 GAL



CHEMICAL TREATMENT

STANDARD SIZES OF 60 GAL, 150 GAL, AND 250 GAL



New for 2015

40 gal stainless steel system

Sized for small volume generators

Priced in the \$9,000-\$10,000 range

WM-150M