LABEL LOGIC

DECODING THE INGREDIENTS ON YOUR CLEANERS & DISINFECTANTS

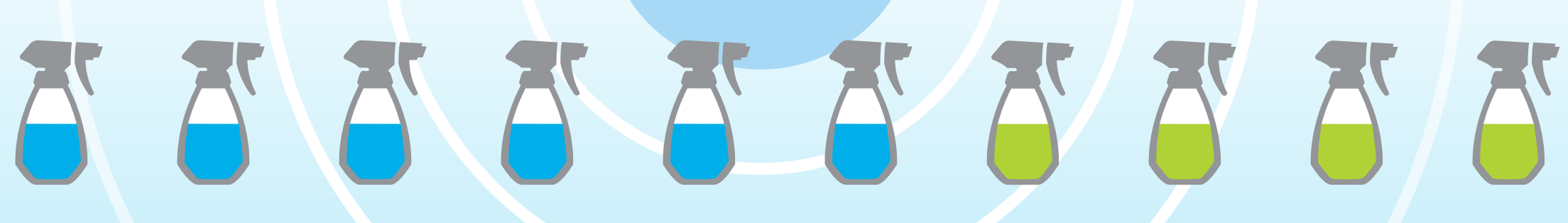
WHAT YOUR LABELS TELL YOU…

TRANSPARENCY DOESN'T ALWAYS TRANSLATE

Complex chemicals are difficult to express in layman terms and even harder to pronounce. Even well-informed consumers have a hard time deciphering labels.

Benzenesulfonic acid Surfactant(s) Didecyl dimethyl ammonium chloride
Alkyl(C12-16)dimethylbenzylammonium chloride
Acetic acid Stabilizer Sodium sesquicarbonate SD Alcohol 38B
Solvent Lauramine oxide Tetrasodium EDTA
Caprylic acid Fragrances 1-Decanamine C6-12
Glycol ethers N-decyl-N-methyl- 1-Propoxy-2-propanol Alcohols
Diethyl phthalate Phosphoric acid Preservatives
C10-C16-alkyl derivatives Unspecified ethoxylated Hydrogen peroxide
Peracetic acid Chelating agent(s) Nonionic surfactant(s) (unspecified)

THE MORE PRODUCTS YOU USE, THE MORE CHALLENGING LABELS BECOME.



BUYER BEWARE

Not all ingredients have to be listed on the label. Typically, only the active ingredients are listed

Fragrance free does not always mean no fragrances

'Environmentally friendly' or 'Green' claims are not subject to any legal standard

Chemistry doesn't always play well with others – **Lookout for dangerous chemical interactions**

The more a product claims to do, the more chemicals it contains. **Look for labels with the fewest ingredients.**

CHLORINE:

DEBUNKING THE MYTHS OF A MISUNDERSTOOD ELEMENT

CL

Naturally occurring chemical compounds are all around us and not all are bad. It depends on the variety and concentration level. Chlorine, for example, is a varied and powerful element. From table salt to immune defense, chlorine can be toxic but it also comes in many useful forms.

HOCl

HYPOCHLOROUS ACID:
NATURE'S ORIGINAL DISINFECTANT

Hypochlorous Acid (HOCl) is formed through a special equilibrium in water. As a non-toxic, chlorine-derived disinfectant, HOCl is the most active form of chlorine while maintaining a safety profile gentle enough to use, even in skin care products.

HOCl occurs naturally in the body. It is created by white blood cells to fight off infection, bacteria, and skin injury.[1]

HOCl is 80–200 times more effective than bleach in bacteria surface disinfection yet is nontoxic to humans[2].

A proven safety profile
High concentrations of HOCl have been proven non-toxic by EPA standards and repeated toxicity testing. Inhalation, ingestion, skin- and eye-contact require no first aid measures[3].

REFERENCES:
[1] https://www.health.com/beauty/skincare/hypochlorous-acid-skincare
[2] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6255518/
[3] https://www.hfmmagazine.com/articles/4458-exploring-the-use-of-hypochlorous-acid-for-disinfection

QUAT FACTS

QUATERNARY AMMONIUM CHLORIDES ARE 300+ VARIETIES OF POTENT DISINFECTANT CHEMICALS

Linked to severe skin burns and eye damage

Potent lung irritants

Harmful if swallowed

A known mutagen linked to fertility issues and birth defects

WIDESPREAD QUAT USE ALSO CONTRIBUTES TO ANTIMICROBIAL RESISTANCE

BE ON THE LOOKOUT FOR:

ADBAC
Alkyl Dimethyl Benzyl Ammonium Chloride

DDAC
Dodecyl Didecyl Dimethyl Ammonium Chloride

'cetrimide'
Hexadecyltrimethylammonium

BAC
Benzalkonium Chloride

REFERENCE: https://www.sproutsanfrancisco.com/get-educated/safe-from-quats/

WHAT YOUR LABELS DON'T TELL YOU…

ACTIVE INGREDIENTS ARE NOT ALL THE INGREDIENTS

The EPA only requires disinfectants to list the active ingredients that kill germs.

Non-active ingredients do not have to be listed – look for words like **'fragrances'** and **'preservatives'**

Confidential Business Information (CBI)
A provisions of the Toxic Substances Control Act (TSCA) prevents the EPA from releasing proprietary information or requiring it to appear on ingredients labeling. The EPA does utilize information about CBI protected ingredients in their Toxicity Categorization.

REFERENCE: https://www.epa.gov/tsca-cbi

IS YOUR DISINFECTANT LIVING A DOUBLE LIFE?

Cleaning products are not EPA regulated and do not have to disclose ingredients.

CHEMISTRY CLUES

1. **DOES THE LABEL RECOMMEND YOU WASH YOUR HANDS OR RINSE SURFACES AFTER USE?** TOXIC CHEMICALS LINGER ON SURFACES EXPOSING YOU EVERY TIME YOU TOUCH THAT SURFACE
2. **PERSONAL PROTECTIVE EQUIPMENT (PPE) AND VENTILATION REQUIREMENTS** CAN BE ADDITIONAL INDICATORS OF TOXICITY
3. **AVOID EPA TOXICITY CATEGORY 1-3** THAT PROMINENTLY DISPLAY CAUTION, WARNING OR DANGER
4. **STORAGE AND DISPOSAL REQUIREMENTS** CAN INDICATE POTENTIAL THREATS TO PEOPLE AND THE PLANET

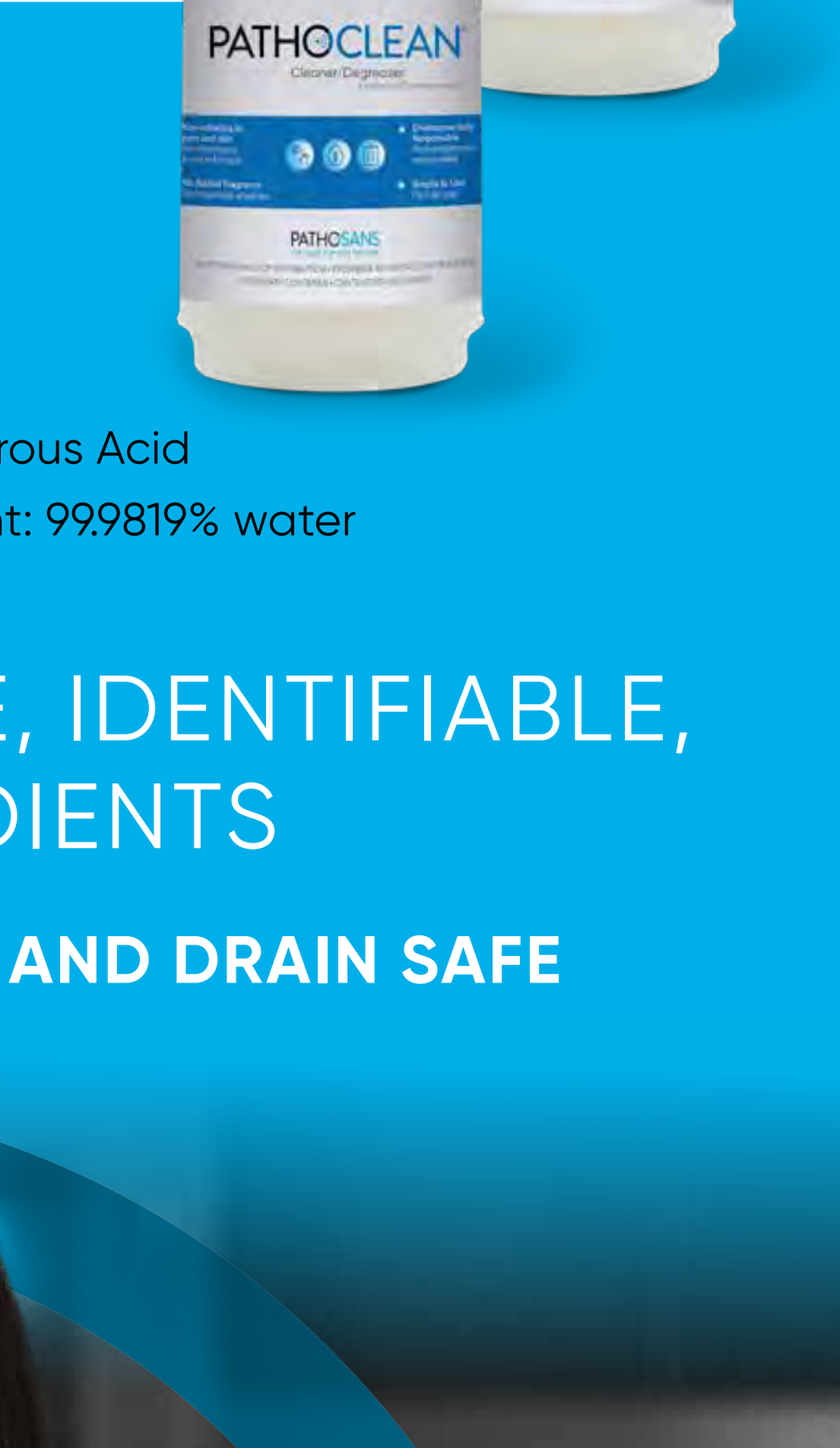
LOOK FOR 'FULL DISCLOSURE' COMMITMENTS

Scan the QR code on the label or visit the manufacturer's website, **whatsinproducts.com** or **smartlabel.org**

AT PATHOSANS, LESS IS MORE

HYPOCHLOROUS ACID DISINFECTANT & SODIUM HYDROXIDE CLEANER MADE FROM

- WATER
- SALT
- ELECTRICITY



PATHOCLEAN®
Active ingredient:
<0.06% Sodium Hydroxide
Inactive ingredient: >99.94% water

PATHOCIDE®
Active ingredient:
0.0181% Hypochlorous Acid
Inactive ingredient: 99.9819% water

THAT'S IT! RECOGNIZABLE, IDENTIFIABLE, PRONOUNCEABLE INGREDIENTS

NON-IRRITATING TO SKIN AND EYES AND DRAIN SAFE

IT'S TIME TO **MAKE GOOD**

pathosans.com/makegood

PATHOSANS • THE CLEAN THAT SAYS YOU CARE