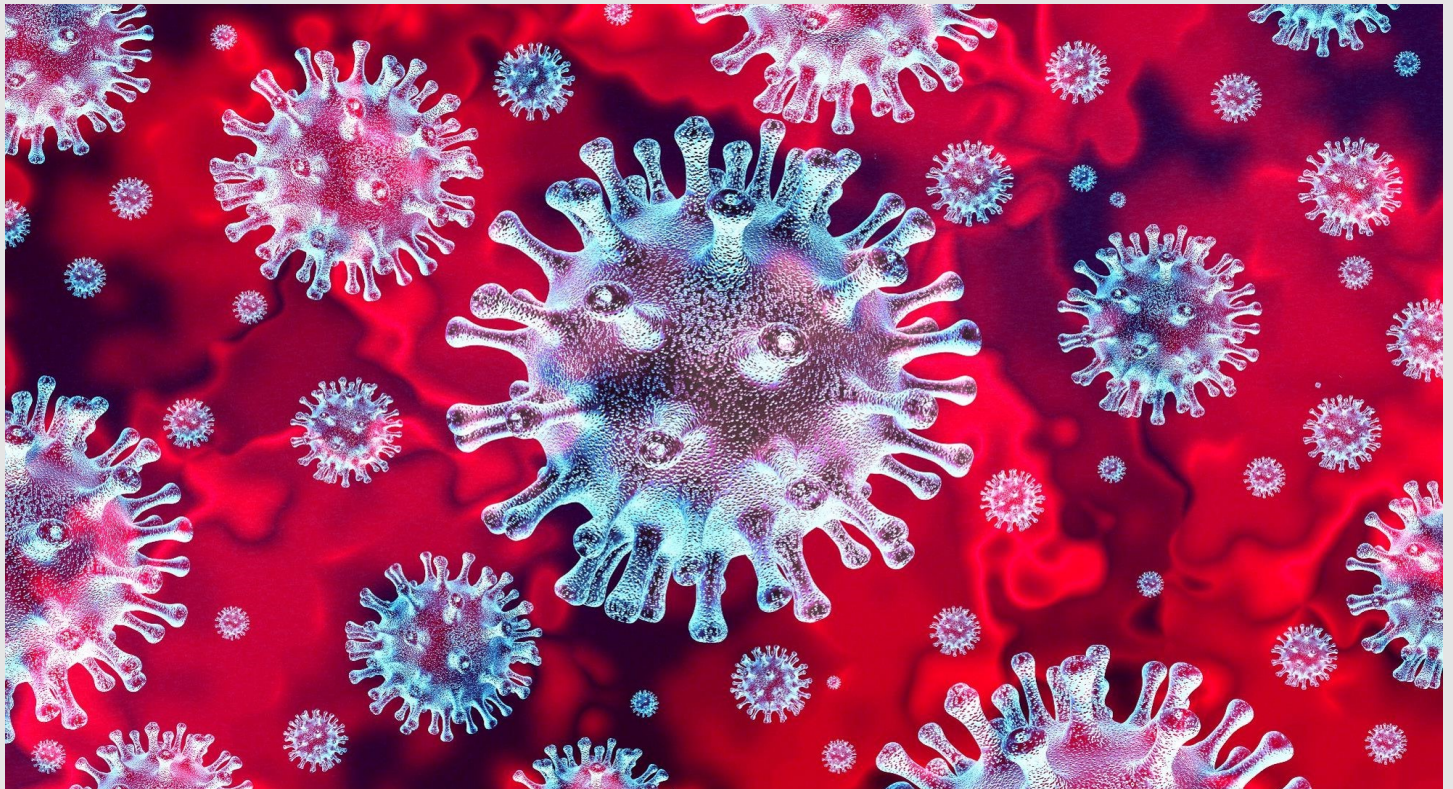


LET'S FACE THE FUTURE POST COVID TOGETHER



Covid-19 has changed many aspects of our day to day. There will be time to take stock of the impact of the unprecedented situation we are experiencing, but if one thing is already very clear is that our **hygiene habits** have changed dramatically: apart from using hydro-alcoholic gels in our hands, we also use a lot of products to clean and disinfect ourselves and our houses.

Because cleaning means being safe.

We propose different types of raw materials to confidently face the new reality with security.

THICKENERS FOR HYDROALCOHOLIC GELS

MASSOCARE TCK APT - C.Q.MASSÓ (INCI: Ammonium Polyacryloyldimethyl Taurate)

Crosslinked Polyacryloyldimethyl Taurate powder used to provide thickening and stabilization properties for clear hand sanitizing gels among other skin formulations.

Benefits:

Versatility: suitable for a broad range of personal care formulations

Sensoriality: delivers a soft, non-sticky and fresh sensation

Efficacy: excellent thickening effect



MASSOCARE TCK1 - C.Q.MASSÓ (INCI: Carbomer)

Acrylic copolymer in powder. It can be used in cleansing products as well as in hand sanitizers.

MASSOCARE TCK2 - C.Q.MASSÓ (INCI: Acrylates Copolymer)

Acrylic copolymer dispersed in water with anionic nature. It can be used in cleansing products and in hand sanitizing formulations.

Benefits:

Easy handling: cold processable, fast neutralization and liquid.

Clear formulations and pH flexibility

Non-sticky and synergistic thickening with salt

BIOCIDES

BARDAC 22 / 2240 - LONZA (Didecyldimethylammonium Chloride)

Antimicrobial ingredients based on a **cationic active** molecule that offers good surfactant properties and can be formulated together with non-ionic- and/or amphoteric surfactants.

They exhibit a **broad antimicrobial efficacy** against gram-positive and gram-negative bacteria, yeast, and enveloped viruses, even at low temperatures and in the presence of organic soil, such as blood and protein.

They are stable around a wide range of pH levels.

BARQUAT BAC-50 / BAC-80 - LONZA (Alkyl Dimethyl Benzyl Ammonium Chloride)

Based on a **cationic active** the BARQUAT BAC series are characterized by their good surfactant properties and their compatibility with non-ionic and/or amphoteric surfactants.

They offer **broad antimicrobial protection** against gram-positive and gram-negative bacteria, yeast and enveloped viruses across a broad pH-range.



LONZABAC 12/100 / 12/30 - LONZA (Propanediamine, N-(3-aminopropyl)-N-dodecyl)

Broad spectrum biocidal active ingredient with good surfactant properties and compatible with anionic surfactants.

Effective against both gram-positive and gram-negative bacteria as well as Mycobacterium terrae and Mycobacterium avium. Also effective against enveloped viruses.

Maintains high efficacy even at low temperatures and in the presence of heavy organic soil, such as blood and protein, and is stable around a wide range of pH values

DISINFECTANT FORMULATIONS

Discover **LONZA**'s proposal to help producing and/or marketing disinfectant formulations that are intended to be supported through the product authorisation process of the Biocidal Product Regulation for a defined list of countries: the **LONZAGARD®** range of disinfectants and disinfectant Cleaners

LONZAGARD® are formulations that could be easily and cost effectively added into your product range and marketed under your own brand name using **LONZA**'s previously generated data.

LONZAGARD®	Active	Benefits	Efficacy
DR-19aB	DDAC 4.5%	Cleaning and disinfection Concentrated formula Easy dilution	Bacteria Yeast
DR-LS-13N	Triamine 6.75%	Cleaning and disinfection Concentrated formula Easy dilution Free-from Quats, VOCs, alcohol and chlorine Ready-to-Use product for consumer use	Bacteria (incl. MRSA) Yeast Mycobacteria (incl. TB) Enveloped viruses (Vaccinia virus, BVDV) and Ebola virus
DM 114-10	QACs blend 9.9%	Disinfection Concentrated formula Water based Easy dilution Ready-to-Use product for consumer	Bacteria Yeast Enveloped / some non-enveloped viruses (incl. Influenza virus, Hepatitis B / C, HIV, Rotavirus, Norovirus)
DR-25aN	DDAC 6.9%	Cleaning and disinfection Concentrated formula Easy dilution Free-from Aldehydes	Bacteria (incl. MRSA) Yeast Fungi and spores (incl. C. difficile) Non-enveloped viruses (incl. Polio virus, Adeno virus and Norovirus) Enveloped viruses (incl. Influenza viruses, Corona virus MERS-CoV, Hepatitis B and Ebola virus)
DR-60	DDAC 6.0% Triamine 5.0%	Superior performance in the evaluation of surface 'stickiness' in comparison to traditional quat-based formulations Excellent performance in both medical dirty and I&I dirty conditions Low alkaline pH of ~10, sporicidal efficacy and excellent material compatibility	Bacteria Yeast Spores Enveloped viruses and Norovirus
DR-70	DDAC 6.5% Triamine 5.3%	Cleaning and disinfection for hard surfaces in healthcare settings High performance in medical dirty conditions	Bacteria Mycobacteria (incl. TB) Fungi and spores Enveloped & non-enveloped viruses



SURFACTANTS for DISINFECTANT CLEANERS

ZSCHIMMER & SCHWARZ offer surfactants compatible with hydrogen peroxide, sodium hypochlorite, alcohol and quaternary ammonium compounds. Contact us and we will propose you the best surfactant depending on your formulation.

Oxidizing formulations

“Oxidizing agents are oxidizing the cell membrane of microorganisms, which results in a loss of structure and leads to cell lysis and death.”

Based on **Hydrogen Peroxide**

Concentration: from 3 to 6 % H₂O₂

Recommended pH: 3 –5

Suitable surfactants:

SULFETAL 4069, LUMOROL 4339 M and ZETESOL NL-U for foaming cleaners
SULFETAL 4105 for low-foaming cleaners

Based on **Sodium Hypochlorite**

Concentration: from 3 to 6 % NaClO

Recommended pH: 11 –12

Suitable surfactants:

SULFETAL 4069 and **AMPHOTENSID DMOX** for foaming cleaners
SULFETAL 4105 for low-foaming cleaners

Alcohol-based formulations

“Alcohol has been used as an antiseptic as early as 1363 with evidence to support its use becoming available in the late 1800s.”

Concentration: > 70 % Ethanol

Recommended pH: 7

Suitable surfactants:

ZETESOL TP 300 and **ZETESOL 2056** for foaming cleaners
Non-ionic surfactants (ZUSOLAT, OXETAL, PROPETAL and most Mulsifan types)

Quaternary ammonium compounds formulations

“Quaternary ammonium compounds are believed to act by disrupting the cell membrane or viral envelope.”

Concentration: depending on the product

Recommended pH: depending on the product

Suitable surfactants:

Nonionic surfactants (ZUSOLAT, OXETAL, PROPETAL and most Mulsifan types)
Amphoteric surfactants (AMPHOTENSID types)

SURFACTANTS for GREEN CLEANERS

ZSCHIMMER & SCHWARZ offer the **ZETESECO** range of surfactants to match the rising demand for cleaners that are: naturally based, ecologically friendly and sustainable.

Benefits:

Low aquatic toxicity

Based on renewable raw materials

Key products:

ZETESECO HS 100 (Disodium Capryloyl Glutamate)

Anionic, low foaming, hydrotropic surfactant.

Provides stability to neutral and alkaline cleaners. Contributes to the formulation cleaning power.

Applications: Alkaline cleaners, machine floor cleaners.

ZETESECO HS 200 (Disodium Cocoyl Glutamate / Sodium Cocoyl Glutamate)

ZETESECO HS 300 (Sodium Cocoyl Glutamate)

Anionic, high foaming, hydrotropic surfactants

Stabilize neutral and alkaline cleaners, whilst increasing their cleaning power.

Increase the skin compatibility of pH neutral cleaning formulations. Additionally, they exhibit emulsifying properties, allowing cold emulsification of plant-based and mineral oils.

Suitable for ecolabel (EU Ecolabel or Nordic Ecolabel) and Ecocert cleaners.

Applications: Alkaline cleaners, car shampoos, all purpose cleaners and laundry detergents.

