ballestra mazzoni

Specialty Surfactants

This document contains confidential and privileged information that are property of Ballestra S.p.A.

Specialty surfactants

Multipurpose Technology

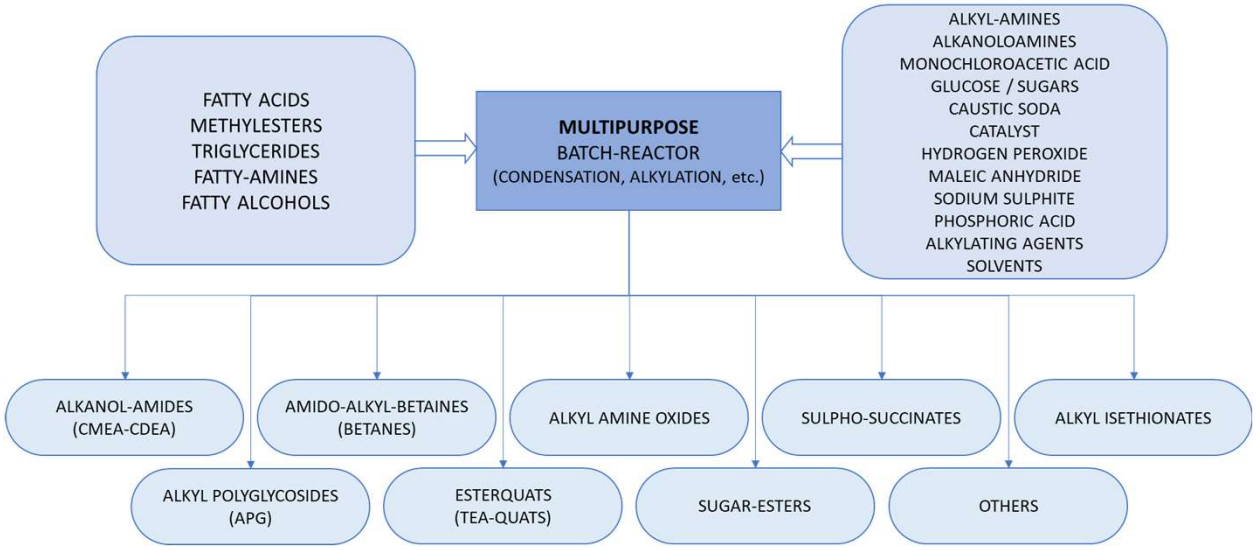
Process for the production of a wide range of surfactant specialties and Esters through condensation, alkylation, esterification, …, of various natural bases.

Available know-how and expertise include:

- ✓ Alkanol-amides (CMEA & CDEA)
- ✓ Alkyl Amine Oxides
- ✓ Betaines (low contaminants)
- ✓ Esters

Ongoing developments:

- ✓ Esterquats (TEA-quats)
- ✓ Alkyl Polyglucosides (APG)
- ✓ Sodium coco-isethionates (SCI)
- ✓ Sulphosuccinates



ballestra mazzoni

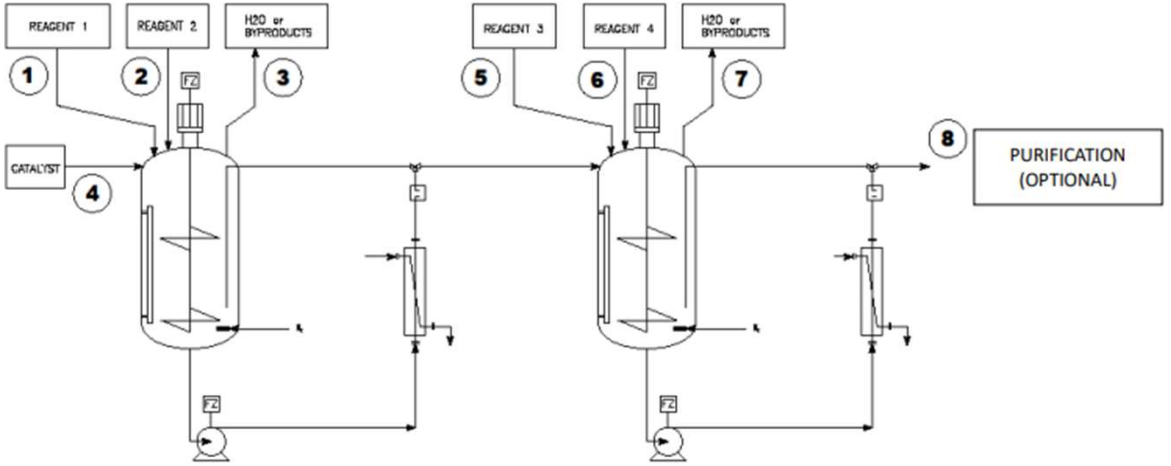
This document contains confidential and privileged information that are property of Ballestra S.p.A.

Specialty surfactants

Cation, Amphoteric, Esters and others

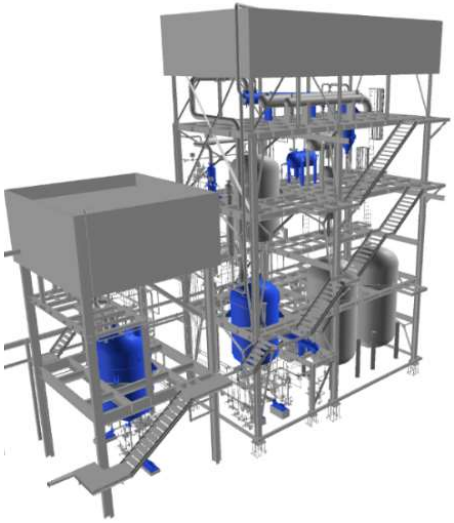
Main features:

- ✓ Multipurpose Plant
- ✓ Batch process
- ✓ Accurate Dosing of RM
- ✓ Efficient and Controlled Reaction
- ✓ Integrated Post-Treatment and Product Purification



Proven experience on:

- ✓ Revamping of existing plants
- ✓ Design of new plants
- ✓ R&D assistance to client for new products

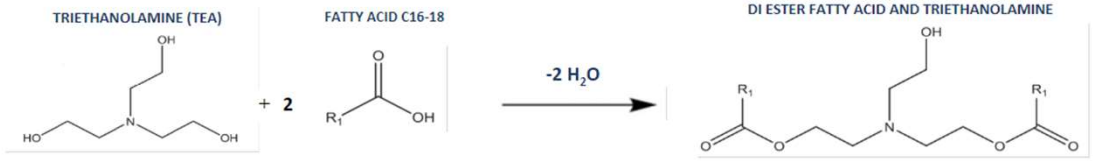


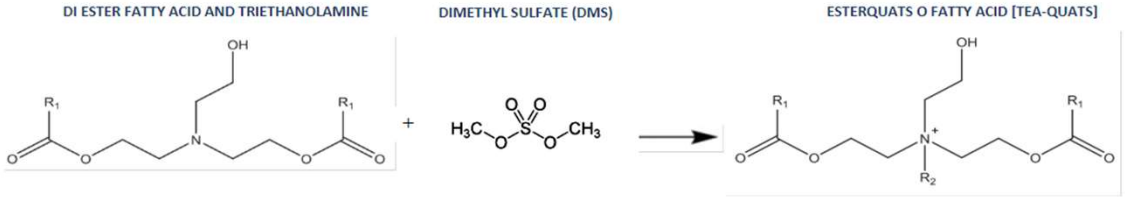
ballestra mazzoni

This document contains confidential and privileged information that are property of Ballestra S.p.A.

Specialty surfactants

Cationic - Ester Quats





ballestra mazzoni

This document contains confidential and privileged information that are property of Ballestra S.p.A.

Specialty surfactants

Amphoteric

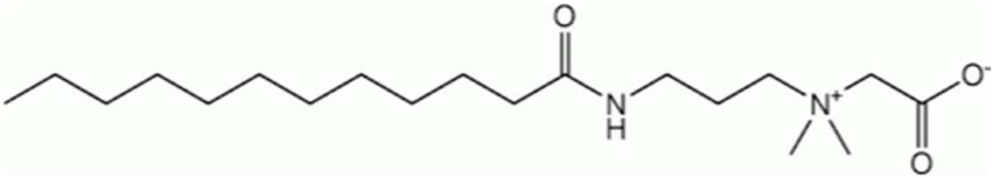
MAIN APPLICATIONS

- ✓ Dishwashing liquids
- ✓ Shampoo
- ✓ Conditioner
- ✓ Hard surface cleaning
- ✓ Thickener in bleach systems
- ✓ Laundry
- ✓ Agricultural formulations
- ✓ Industrial & Institutional cleaners (e.g. metal cleaning, textile dyeing)

PROPERTIES

- ✓ Mild surfactants
- ✓ Foam Stabilizer
- ✓ Thickeners
- ✓ Emollients
- ✓ Emulsifiers
- ✓ Conditioners

Cocamidopropyl betaine (CAPB)



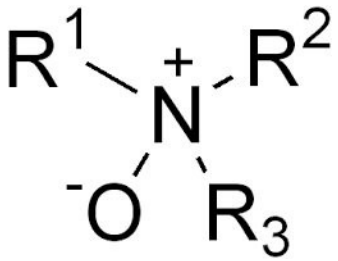
Alkil Amine Oxide

TYPICAL R_X STRUCTURE:

R_1 : C_{12}-C_{18} Chain

R_2 : $-CH_3$

R_3 : $-CH_3$



This document contains confidential and privileged information that are property of Ballestra S.p.A.

Specialty surfactants

Esters

Operating Conditions

- ✓ Under vacuum
- ✓ At high temperature (>200°C)

Flexibility

Multipurpose plant is design for a wide portfolio of different products produced in the same plant changing the reactants, the recipes and the operating condition.

Compact Design

- ✓ Process Plant space requirement limited to 14 x 7 m.
- ✓ Vertical design configuration with maximum 20 m elevation

Esters main fields of application:

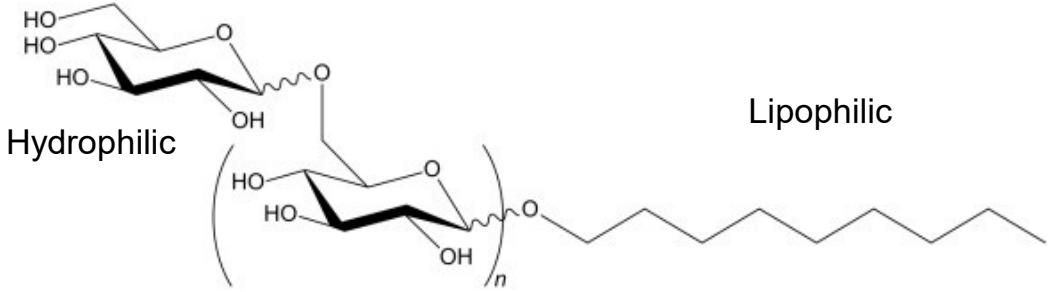
- ✓ **Lubricants**
- ✓ **Cosmetic**
- ✓ **Fine chemicals**
- ✓ **Food additives**

ballestra mazzoni

This document contains confidential and privileged information that are property of Ballestra S.p.A.

Specialty surfactants

APG



LOADING...

ballestra mazzoni

ballestra
mazzoni

Via Piero Portaluppi,17
20138 Milano– ITALY
Tel +39 0250831
www.ballestra.com
mail@ballestra.com

Corso Sempione 212, Bis
21052 Busto Arsizio – ITALY
Tel +39 0331 356111
www.mazzonilb.it
info@mazzonilb.it