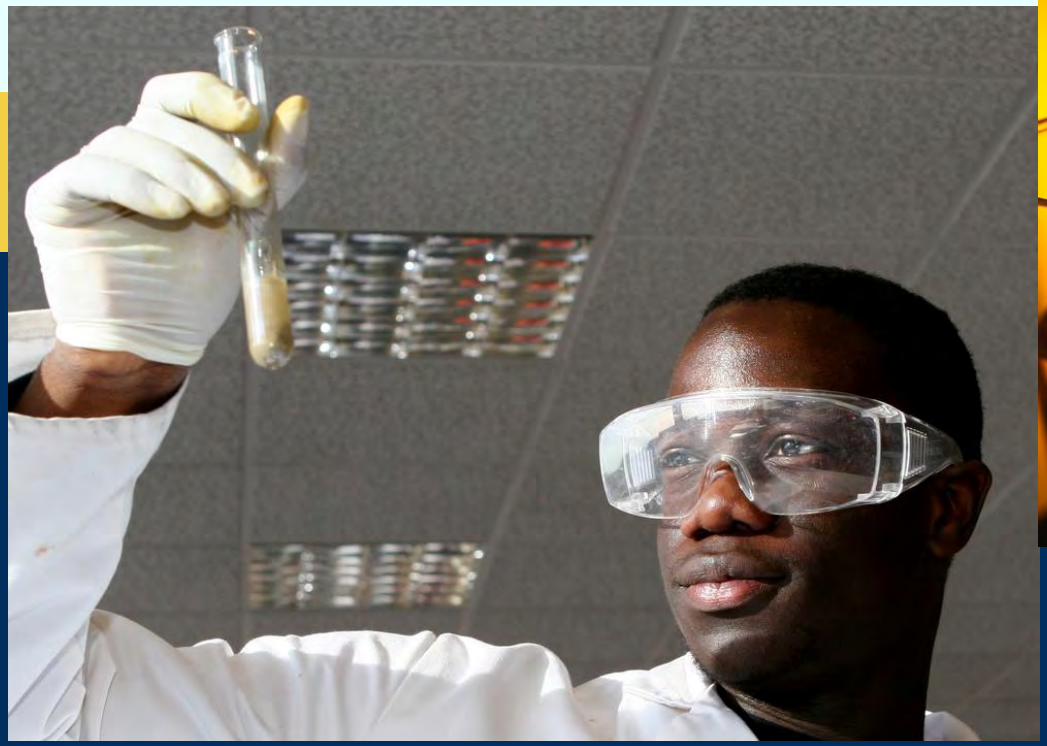
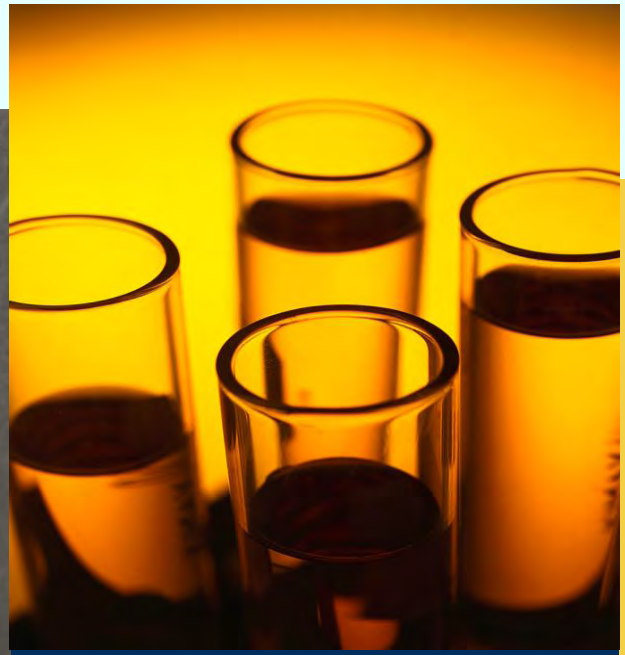
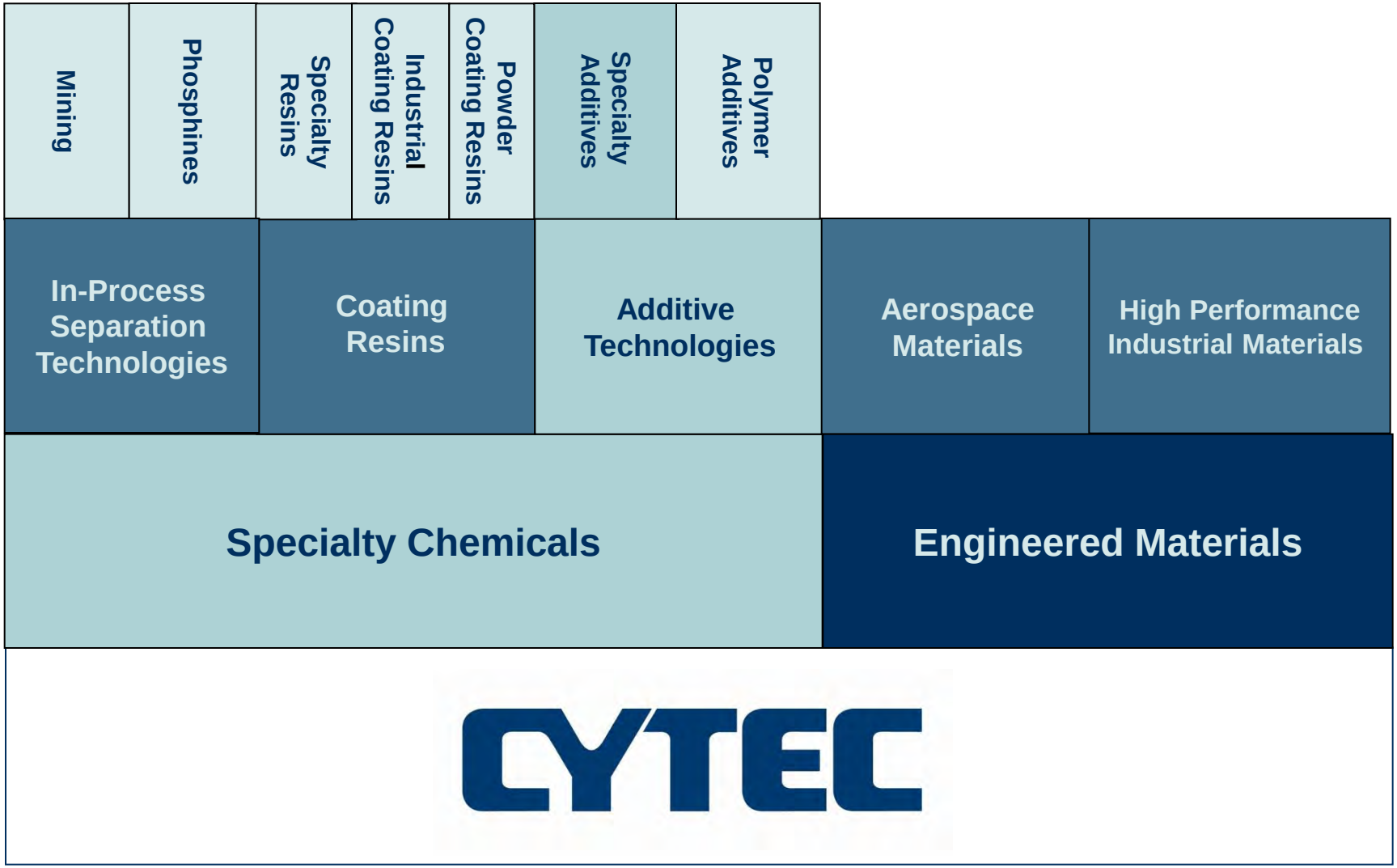
CYTEC





Specialty Additives Overview
July 2011

Company Structure



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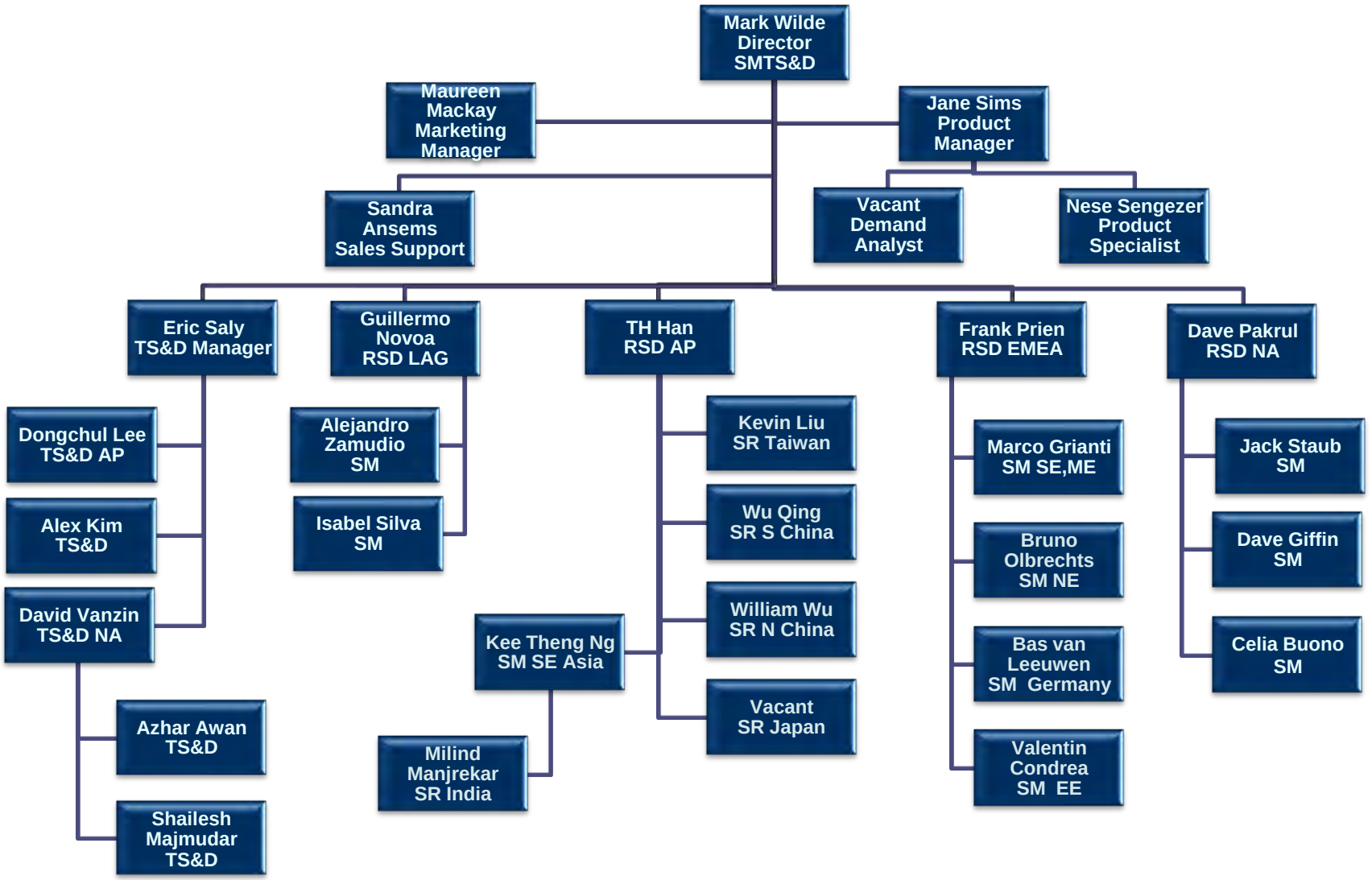
Specialty Additives Global Team



Cytec Values

Safety, Health and Environment

- We make safety, health and protecting the environment our first priority. We are committed to the safety of our employees, customers, all those who interface with our products and processes, and the communities in which we conduct business.

Ethics

- We are fair, honest, and consistent in our business and personal practices.

Respect for Employees

- We value and respect all of our employees for their diversity, experience and unique ability to contribute to a growing, lasting, and winning enterprise.

Value Creation

- We create value for our customers through innovation and operational excellence, which brings enterprise success and value to our employees and shareholders.

Specialty Additives Strategic Intent

Specialty Additives Product Range

Industrial Surfactants	AEROSOL® surfactant.	Wetting agents, emulsifiers, dispersants and solubilizing agents.
Specialty Surfactants	Docusate, COMPLEMIX®.	Pharmaceutical and Food grade surfactants.
Specialty Monomers	CYLINK® NMA, NMA LF, NBMA 801, IBMA, MBA, NH8, TAC and DOM.	Functional crosslinking monomers for emulsion and solvent polymerisation, DOM internal plasticiser.
Stabilizers	PTZ® Phenothiazine.	Stabilizer for acrylic acid and acrylate monomers.
Intermediates	Resin Amines, Alkyl Anilines.	Paint de-tackifier, pharmaceuticals and general chemical processes.

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Specialty Additives Markets & Applications

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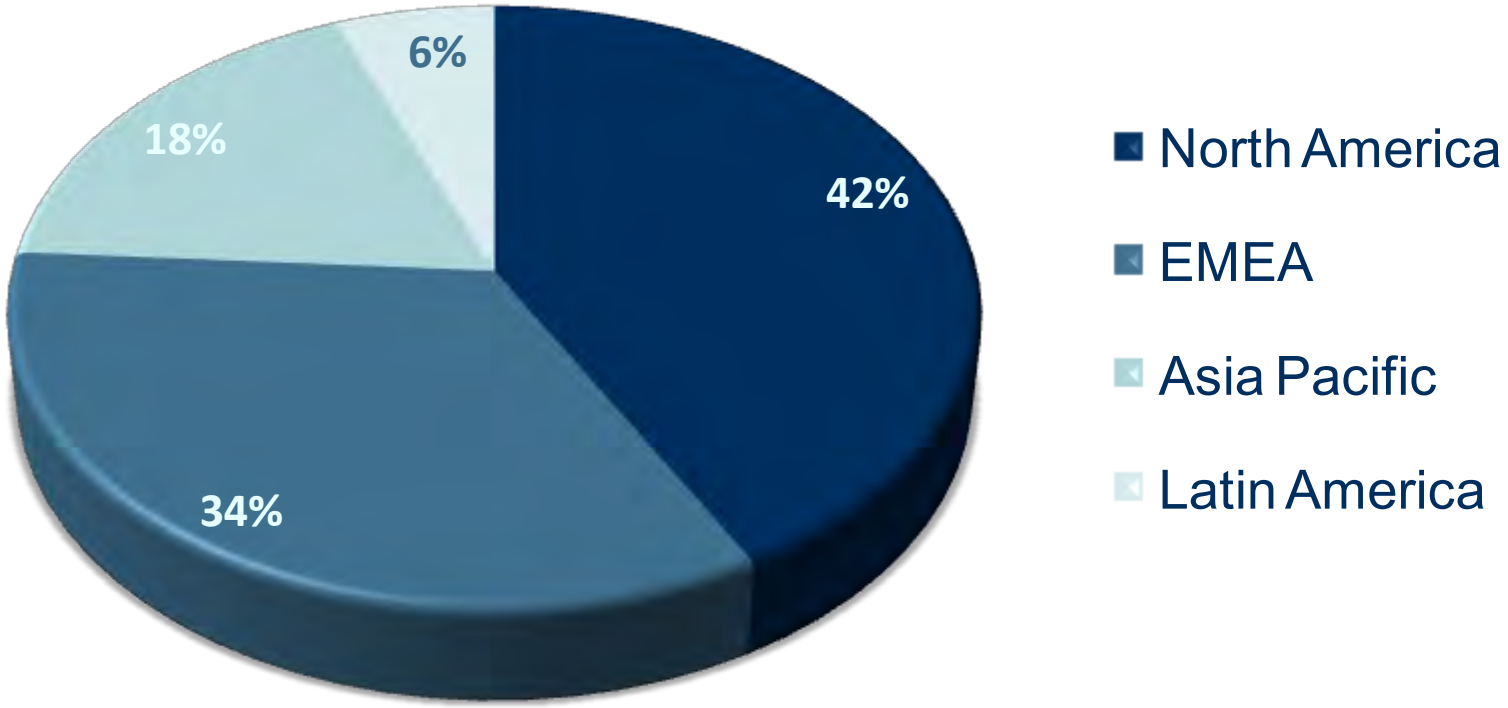
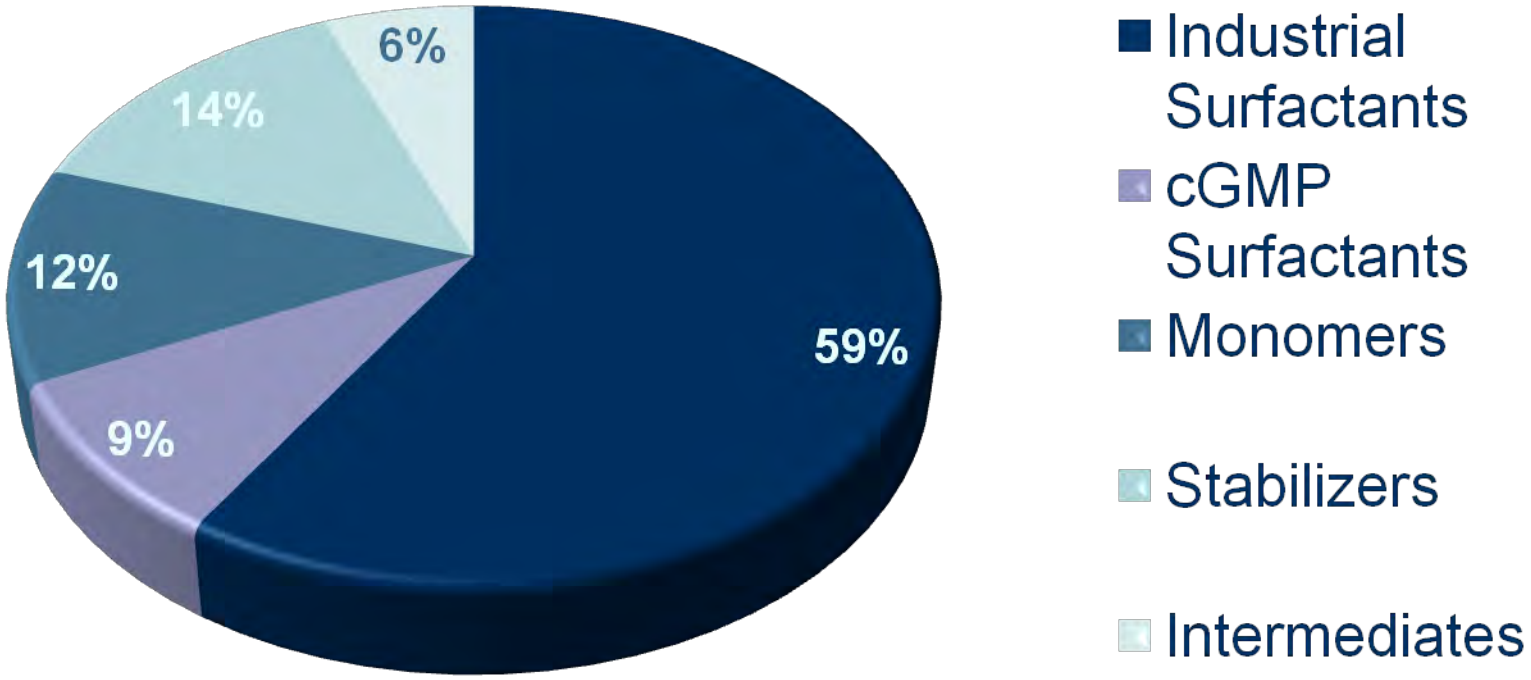
Sales by Region 2010



Sales by Product Line 2010



Specialty Additives Strengths

Specialty Additives Global TS&D

Technical service, applications research, production support and development are available globally. Direct support of our customers is our principal focus.

Specialty Additives Manufacturing Sites

Industrial Surfactants

Diester Sulfosuccinates	• A range of anionic surfactants, outstanding wetting agents, dispersants, solubilizing agents and emulsifiers. • AEROSOL® TR, OT, WA-300, LF4, MA, A196, AY, IB.
Monoester Sulfosuccinates	• A range of anionic surfactants, excellent primary and secondary emulsifiers. • AEROSOL EF-800, EF-810, A-102, A103, A501
Sulfosuccinamates	• Anionic surfactants, foaming agent, emulsifier and dispersant with excellent acid & alkali stability. • AEROSOL 18P, 22, 22 Special.
Others	• Range surfactants for wetting, dispersing and emulsification. • Anionic – AEROSOL DPOS 45, OS, NPES-458, NPES-930P. • Cationic – AEROSOL C61.

CYTEC

Diester Sulfosuccinates

Overview

A broad range of anionic surfactants ranging from hydrophobic to hydrophilic in nature.

Products

AEROSOL® TR, OT, WA-300, LF4, MA, A196, AY and IB.

Properties

Excellent wetting agents in a variety of environments. Also emulsifying, dispersing and solubilizing agents.

Applications

Paint and ink, adhesives and sealants, OPV, Emulsion Polymerisation, construction, textiles & nonwovens, carpets, paper & packaging, battery separators, oilfield and agrochemical.

CYTEC

Monoester Sulfosuccinates

Overview

Anionic surfactants mainly used as primary or sole emulsifiers.

Products

AEROSOL® EF-800, EF-810, A-102, A-103 and A501.

Properties

Mainly used in EP processes to impart a range of properties from high gloss latex for paints to soft tacky polymers for PSA applications.

Applications

EP, paints, inks, adhesives & sealants, construction, paper, textiles, cleaning applications and fire fighting foams (AEROSOL A501).

CYTEC

Sulfosuccinamates

Overview

Anionic surfactants which combine hydrophilic and hydrophobic characteristics.

Products

AEROSOL® 18P, 22, and 22 Special.

Properties

Emulsifying and dispersant agents with excellent acid and alkali stability. Strong hydrophobes. AEROSOL 18P is an excellent foam generator and stabilizer.

Applications

EP especially for pigmented latex, pigments, agrochemical, lubricants, cleaners. AEROSOL 18P foaming agent for textile, carpet, foamed insulation and cement.

CYTEC

Others

Overview

A variety of anionic surfactants, and one cationic surfactant (AEROSOL® C61).

Products

AEROSOL DPOS 45, OS, NPES-458, NPES-930P and C61.

Properties

Wetting agents, dispersing and emulsifying agents. AEROSOL DPOS, OS and C61 have excellent acid and alkali stability.

Applications

Pigments, dyes, agrochemicals, glass fibre production, glass cutting, cleaning applications. AEROSOL DPOS is used extensively in EP.

CYTEC

cGMP Surfactants

Docusate

- GMP Pharmaceutical grade.
- Active ingredient in laxatives and stool softeners.
- Excipient for tablet formation, creams, gels.

COMPLEMIX®

- GMP Food grade.
- Emulsifier and dispersant for flavouring oils and powdered ingredients.

Docusate

Overview

A pharmaceutical grade surfactant.

Products

Docusate 100, DSS 85, Docusate 50% PEG.

Properties

Manufactured under GMP and FDA conditions meeting USP, EP and JP pharmacopeias. Excellent wetting agents, dispersing and solubilizing agent. Also has stool softening properties.

Applications

Used as active ingredient in laxatives and stool softeners. Ear wax removers, colon cleaners, iron preparations, tableting aid, creams and gels.

CYTEC

COMPLEMIX

Overview

A food grade surfactant.

Products

COMPLEMIX® 100.

Properties

Manufactured under GMP and FDA conditions. Excellent wetting, dispersing, emulsifying and solubilizing agent.

Applications

As dispersant for hydrophobic powders. Emulsifier and dispersant of fruit oils for drinks and soda's.

CYTEC

Specialty Monomers

CYLINK® NMA & NMA LF	• N methylol acrylamide, a self crosslinking functional monomer. CYLINK NMA LF is a low formaldehyde version.
CYLINK NBMA 801 & IBMA	• Iso or N butoxymethyl acrylamide, a self crosslinking functional monomer.
CYLINK MBA	• N,N methylene bis acrylamide, a bifunctional internal crosslinking monomer.
CYLINK NH8	• A proprietary wet adhesion monomer.
CYLINK TAC	• Tri allyl cyanurate, a trifunctional internal crosslinking monomer.
CYLINK DOM	• Dioctyl Maleate, a plasticizing monomer.

CYTEC

CYLINK® NMA & NMA LF Monomer

Overview

N methylol acrylamide, a self crosslinking functional monomer.

Products

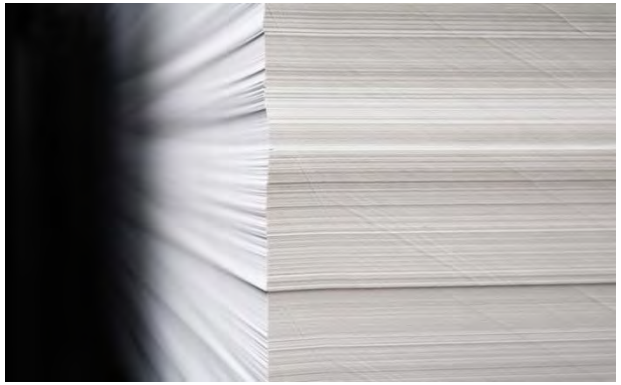
CYLINK NMA monomer, CYLINK NMA LF Monomer.

Properties

Bifunctional monomers possessing both vinyl and hydroxymethyl groups. Reactions can be carried out at either both groups or independently.

Applications

Primary use is in EP, producing latex binders used in adhesives, paper making, textiles and nonwovens, surface coatings and resins for varnishes.



CYTEC

CYLINK® IBMA & NBMA 801 Monomer

Overview

Iso or N butoxymethyl acrylamide a self crosslinking functional monomer.

Products

CYLINK IBMA Monomer, CYLINK NBMA 801 Monomer.

Properties

Contains a readily polymerizable vinyl group and a crosslinkable butoxymethyl group. It has organic solubility so can be used in solvent as well as water based polymerizations. It can also be a reactive diluent in radiation curing systems.

Applications

In latexes for textiles and nonwovens where ultra low formaldehyde levels are required. Wood adhesives, varnishes, and metal coating.

CYTEC

CYLINK® MBA Monomer

Overview

Methylene bis acrylamide, a bifunctional internal crosslinking monomer.

Products

CYLINK MBA Monomer.

Properties

Undergoes typical reactions for vinyl groups. Forms highly crosslinked polymers. Reacts with alkyd resins and polyesters to form hard resins.

Applications

Superabsorbents, hydrogels, polyester resins, ion exchange resins, coatings and laminates, water absorbing composites for waterproof cables. Used as acid scavenger in UV resistant PVC.

CYTEC

CYLINK® NH8 Monomer

Overview

A proprietary wet adhesion monomer.

Products

CYLINK NH8 Monomer.

Properties

A vinyl monomer for acrylic, vinyl acrylic, styrene acrylic and vinyl/VEOVA polymerizations, provides outstanding wet adhesion and scrub resistance. Promotes adhesion to chalky or aged alkyd substrates under wet or humid conditions.

Applications

Specifically designed to address the needs of interior and exterior architectural coatings market in humid or wet conditions.

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CYLINK® TAC Monomer

Overview

Tri allyl cyanurate a tri-functional internal crosslinking monomer.

Products

CYLINK TAC Monomer

Properties

Used primarily as a crosslinker for polyesters, epoxies, polyvinyl chloride and polyolefin's to impart improved heat and solvent resistance, electrical properties and hardness.

Applications

Rubber wire and cable coating, molding and rotomolding compounds, optical lenses, polyester or polyethylene vessels and tanks, industrial adhesives, ABS and encapsulation products.

CYTEC

CYLINK® DOM

Overview

Dioctyl maleate, a plasticizing monomer.

Products

CYLINK DOM

Properties

A reactive monomer acting as an internal plasticizer in copolymers with styrene, vinyl acetate, EVA, acrylates and polyvinyl chloride.

Applications

Used in production of soft polymers or latex for adhesives, paint, textile and paper coatings. Plasticizer in flexible PVC.

CYTEC

Stabilizers

PTZ®
Phenothiazine

- Primarily a stabilizer for use in the production and storage of acrylic acids, esters and methacrylate monomers.

PTZ® Phenothiazine

Overview

Phenothiazine monomer stabilizer.

Products

PTZ prill, PTZ powder and PTZ liquid vehicle technology (LVT).

Properties

Inhibits polymerization of monomers during their manufacture and protects during storage and shipment. It is thermally stable and acid resistant.

Applications

Monomer stabilizer for acrylic acid, acrylates, methacrylates, chloroprene etc. Shortstopping agent for acrylic monomer. Antioxidant for polyether, polyols, unsaturated polyester and vinyl ester resins, neoprene, lubricants and oils. Pharmaceutical raw material.

CYTEC

Intermediates

Resin Amines

- Low molecular weight liquid cationic polymers.
- CYFLOC® C507 and C515.

Alkyl Anilines

- N,N Dimethylaniline (DMA) and N,N Dimethyl paratoluidine (DMPT).
- Chemical intermediates.

Resin Amines

Overview

Low molecular weight, cationic coagulant polymers.

Products

CYFLOC® C507 (EMEA & AP)

CYFLOC C515 (LAG & AP)

Properties

Effectively replace conventional hydrolyzed metal salts as the primary coagulants in the clarification of influent and effluent waters.

Applications

Primary use is as a paint de-tackifier. Effective in treating waters and wastewater's from the following industries: oil refining and production, paint, latex & rubber, automotive, paper, food processing and aluminum can manufacturing.

CYTEC

Alkyl Anilines

Overview

Alkyl aniline based chemical intermediates.

Products

N,N Dimethylaniline (DMA),

N,N Dimethyl paratoluidine (DMPT)

Properties

High purity, liquid products that function as both raw materials and intermediates. Can be halogenated, sulfonated, nitrated and nitrosated.

Applications

Accelerators or promoters for unsaturated polyester resins. Also used in imaging dyes and pharmaceutical raw material.

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Cytec Specialty Additives.
A wide range of truly *special* additives and intermediates.

For more information about Cytec, visit
www.cytec.com

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Delivering Technology Beyond
Our Customers' Imagination™

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