

BASF Home Care and I&I Europe

Sustainable Solution Steering[®] – Accelerator Example Collection

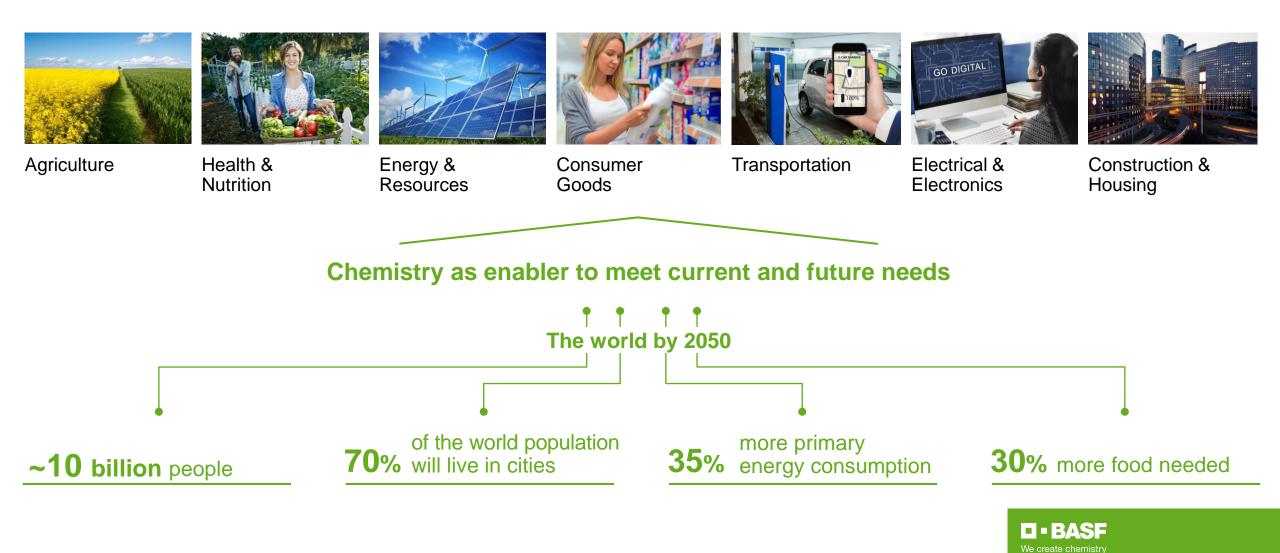


We create chemistry for a sustainable future

The world is changing at a rapid pace – more and more urgently than ever, solutions are needed for a more sustainable future. Chemistry plays a key role here. In almost all areas of life, it can help overcome pressing global challenges with innovative products and technologies – from climate change and using resources more sparingly to feeding the world's population. This belief is expressed in our corporate purpose and is what motivates us day in and day out: We create chemistry for a sustainable future.



From megatrends to products that contribute to sustainability needs



Our systematic Sustainable Solution Steering approach Tool for steering our product portfolio based on sustainability performance

Step 1

Analysis of **sustainability needs** and trends in the value chains

Step 2

Check product sustainability performance in the market application

Step 3 Development of action plans for strategies, R&D, and market approach





Home Care and I&I Europe

Sustainable Solution Steering

Our sustainability understanding reflects three dimensions of sustainability



BASF's sustainability criteria



Cost savings downstream



Biodiversity & renewables

- Climate change & energy
- **Emission reduction**
- **Resource efficiency**

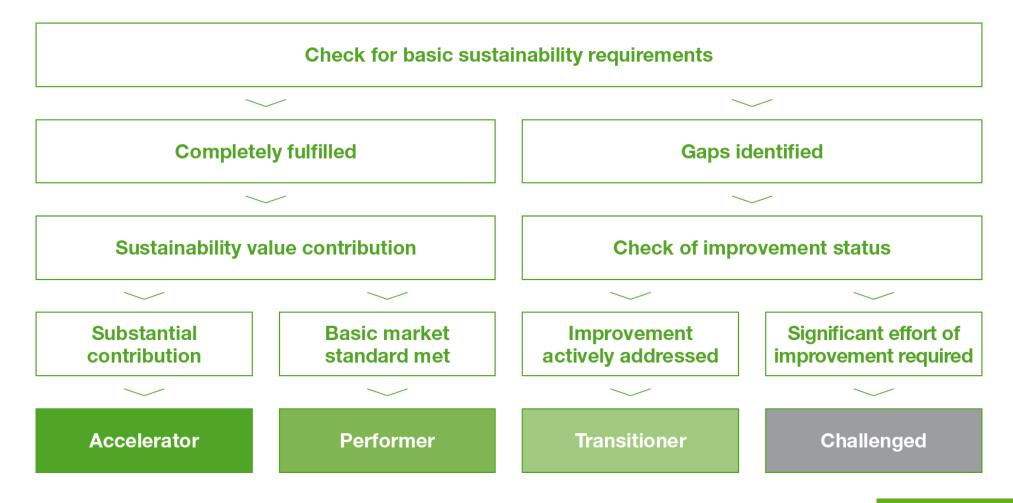
Health and safety



Hunger and poverty



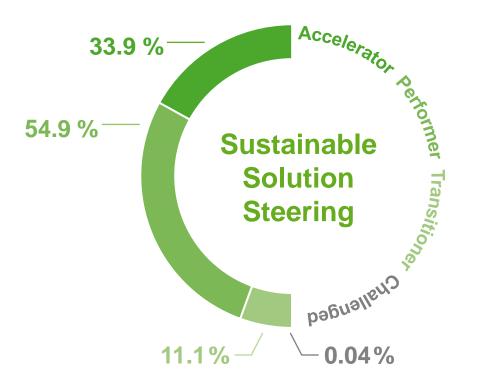
Sustainable Solution Steering Segmentation methodology





Sustainable Solution Steering

€22 billion in Accelerator sales already achieved in 2021



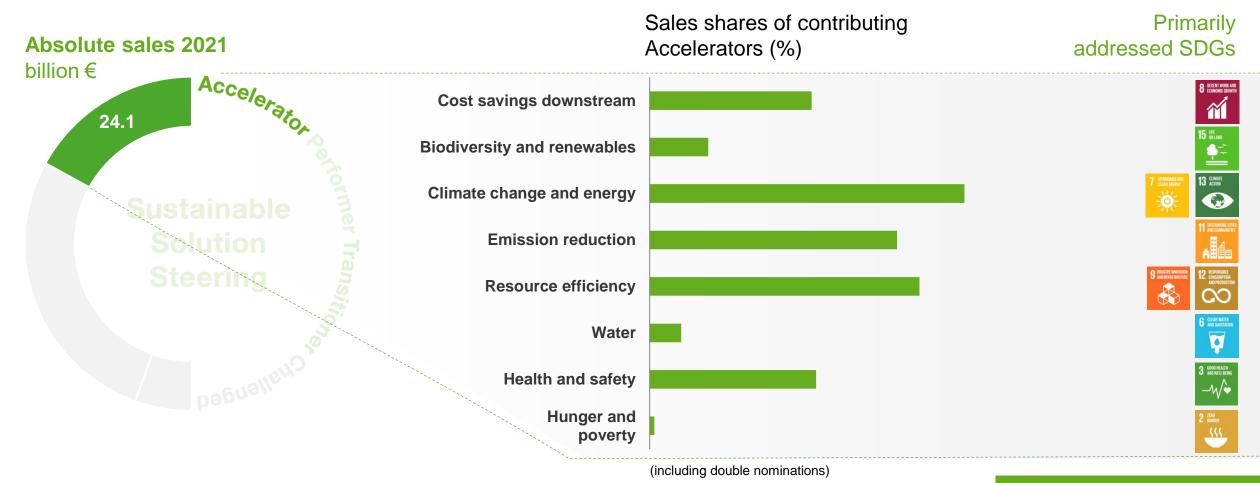
- More than 56,000 product applications analyzed by 2021¹ (€71 billion in sales, 98.7% of relevant portfolio)
- 16,000 solutions for enhanced quality of life
- Goal: €22 billion of Sales with Accelerator products by 2025 already met in 2021 (2020: €16.7 billion)
- Stronger integration in R&D pipeline, business strategies and mergers and acquisition projects
- We will phase out all Challenged products within five years of initial classification as such at the latest

Target: Increase Accelerator share and phase out "challenged products" maximum 5 years after identification



Sustainable Solution Steering

Accelerators contribute to the UN Sustainable Development Goals





Accelerators Trilon[®] M types / Trilon[®] Ultimate types

Product information		Differentiation potential		
Application Customer industry Market	Chelating agent mainly for Automatic Dishwashing Detergents Home Care Global	Customer	 Strong alternative to Citrate, Phosphonate, GLDA Material protection claims: Prevention of scale formation, Ultimate 2 G w/ glass protection Sustainable positioning 	
		Consumer	 Combines superior cleaning performance with sustainability 	Ton A'

Sustainability performance

- Readily biodegradable strong chelating agents
- Meet requirements of EU Ecolabel, Blue Angel (except Ultimate types) and Nordic Swan
- Good eco-tox profile compared to other strong chelating agents
- Phosphate alternative in automatic dish wash
- Eco-efficiency analysis available

- Bio-grades available:
 - Trilon[®] M Max BioBased with a measurable bio-content of up to 43%
 - Trilon[®] M Max EcoBalanced, 100% biocertified via mass balance and with reduced Product Carbon Footprint



The technically best builder system for modern and sustainable dish wash formulations



Accelerators Trilon[®] M types in I&I

Product informa	tion	Differenti	ation potential	
Application	Various I&I applications, f.e. as scale inhibitor or for water hardness control	Customer	 Alternative to STPP, NTA, GLDA, TSC Enables solid format (significant contribution to save energy, cost, packaging, space) 	
Customer industry	Industrial & Institutional Cleaning		 Sustainable positioning 	
Market	Global	Consumer	 Excellent performance and material protection 	

Sustainability performance

- High performance as strong chelating agents
- Readily biodegradable
- Meet requirements of EU Ecolabel, Blue Angel and Nordic Swan
- Good eco-tox profile compared to other strong chelating agent
- Ultimate types with glass protection

- Bio-grades available:
 - Trilon® M Max BioBased with a measurable bio-content of up to 43%
 - Trilon® M Max EcoBalanced, 100% biocertified via mass balance and with reduced Product Carbon Footprint



Phosphate free and biodegradable chelating agents that enable solid formats in I&I



Accelerator Polyquart[®] S Granules

Product information		Differenti	ation potential
Application Customer industry Market	Performance Booster for Automatic Dishwashing Detergents Home Care Global	Customer	 Supports state-of-the-art sustainable All-in-1 products Improved build-up performance Supports rinse efficiency (reduced filming & spotting) Easy-to-use for tablets Sustainable ADW detergents Perfect shine
Sustainability pe Excellent eco-tox p	rformance		

- Excellent eco-tox profile acc. to EU CLP
- Starch based
- Majority bio-based*
- Readily biodegradable
- Meets requirements of EU Ecolabel and Blue Angel

Boosting performance and sustainability profile of modern ADW tablets



auto +

Accelerator Polyquart[®] Ecoclean

Product information		Differentiation potential	
Application Customer industry Market	Surface Care Ingredient in Hard Surface Cleaners Home Care and I&I Global	 Customer Combines sustainability with performance Supports modern claims like "easy-to-clean again", "streak-free" or "quick drying" Consumer Enables sustainable cleaners Makes cleaning more convenient and saves time 	

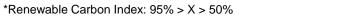
Sustainability performance

- Excellent eco-tox profile acc. to EU CLP
- Aerobic and anaerobic biodegradable
- Amphoteric modified starch
- Majority bio-based*

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Meets requirements of EU Ecolabel and Blue Angel

Bio-based Performance Booster for sustainable HSC formulations





Accelerators Dehypon[®] types

ApplicationRinse surfactants in Automatic Dishwashing DetergentsCustomerE 126, E 127, WET, and Shine: Reduced spotting claimsCustomer industryHome CareCustomerGRA: Spotting performance booster; PEG alternative / tableting aidGRA: Spotting performance booster; PEG alternative / tableting aid
Customer industry Home Care tableting aid
Market Global equal performance
Products Dehypon [®] E 126, E 127, WET, GRA, and Shine VET, GRA, and Shine Consumer Energy savings

- Meet requirements of EU Ecolabel, Blue Angel and Nordic Swan
- Enable energy savings due to improved rinse performance
- Readily biodegradable



Accelerators Sokalan[®] HP 56 types

Product information		Differentiation potential	
Application	Dye Transfer Inhibitors in Laundry detergents	Customer	 Color Care claim, "no sort" claim
Customer industry Market	Home Care and I&I Global	Consumer	 Convenience: "no sort" as light and dark colored textiles can be washed together Prolonging the lifetime of textiles
Sustainability pe	erformance		

- Prevent discoloration caused by fugitive direct and reactive dyes
- Prolong the lifetime of textiles
- Meet requirements of EU Ecolabel, Blue Angel and Nordic Swan
- Easy to formulate also in super concentrated detergents (liquid mono doses)
- Sokalan[®] HP 56 A EcoBalanced up to 100% bio-certified via mass balance and with reduced Product Carbon Footprint



Ingredients that support consumer needs for color care in laundry detergents

Accelerators Plurafac[®] SLF 180 and Plurafac[®] LF 802

Product information		Differenti	ation potential	
Application	Rinse Aids in Food Service & Kitchen Hygiene	Customer	 Enables outstanding rinse aid performance Positioning as sustainable rinse 	
Customer industry	Industrial & Institutional Cleaning		aid that helps to save water, energy, and/or time	
Market	Global	Consumer	Less foam problemsLess water and energy usage	

Sustainability performance

- High performance in rinse aid
- Meet requirements of EU Ecolabel, Blue Angel and Nordic Swan
- Readily biodegradable
- Defoam the common food degradation products which helps to save water and energy

- Outstanding plastic drying performance saves energy and time
- Plurafac[®] LF 802 is optionally available with RSPO certification



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Enable outstanding rinse aids for good plastic drying

Accelerator Lutropur® MSA

Product information		Differentiation potential		1	
Application Customer industry Market	Organic acid for Hard Surface Cleaners and CIP Home Care and I&I Global	Customer	 Easy-to-handle and non-oxidizing Sustainable, high performing acid Faster scale removal Material protection (low corrosiveness) Odorless 	50	

Sustainability performance

- Strong and odorless organic acid for CIP, bathroom and toilet cleaners
- Readily biodegradable
- Meets requirements of EU Ecolabel, Blue Angel and Nordic Swan
- Eco-efficiency analysis available
- More efficient and safer production process than competition (e.g., no co-product, air oxidation instead of chlorine oxidation)
- Excellent cleaning and descaling properties



Sustainable choice for strong acidic hard surface cleaners

Accelerators Glucopon[®] types

Product information		Differentiation potential		
Application Customer industry Market	Hard Surface Cleaners, Hand Dishwashing Detergents, Laundry Detergents Home Care and I&I Global	Customer Consumer	 Support formulations based on renewable resources Enable good foaming properties Material protection (mild and safe for surfaces) Perfect shine Sensitive skin solution for laundry (dermatologically tested) 	
Sustainability pe				

- Readily biodegradable
- Meet requirements of EU Ecolabel and Blue Angel (except 425 N/HH)
- Most types optionally available with RSPO certification
- Cleaning performance boost

Balanced surfactants that combine efficiency with an excellent eco-tox profile



Accelerators Lutensol® TO types

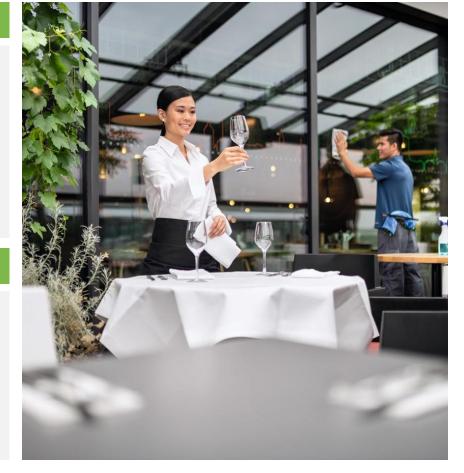
Product information					
Various I&I applications, Hand Dishwashing Detergents					
Home Care and I&I					
Global					
Lutensol [®] TO 3, TO 5, TO 7, TO 8, and TO 89					

Differentiation potential

- **Customer** Excellent cleaning performance
 - Allow for efficient production processes
 - Safe defoamers
- **Consumer** Efficient cleaners
 - No CLP label no health risk

Sustainability performance

- Meet requirements of EU Ecolabel, Blue Angel and Nordic Swan
- Readily biodegradable
- Excellent and fast wetting allows for efficient cleaning and reduces water usage
- Low gel phase avoids heating during production and saves both time and energy
- Strong cleaning performance and degreasing properties



Safe defoamers that enhance performance while optimizing the production process



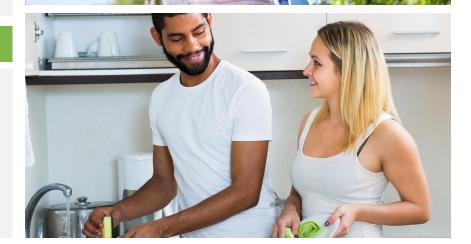
Accelerator Plantatex[®] LLE

Product information		Differentiation potential		4	
Application	Laundry and Hand Dishwashing Detergents	Customer	 Supports formulations based on renewable resources 		
Customer industry	Home Care and I&I		Enables sensitive skin claim		
Market	Global	Consumer	 Suitable for sensitive skin 		

Sustainability performance

- Wholly bio-based surfactant
- Readily biodegradable
- Meets requirements of EU Ecolabel, Blue Angel and Ecocert
- Optionally available with RSPO certification

A plant-derived lipid layer enhancer for laundry and hand dishwashing detergents





Accelerators Dehydol[®] LT 7 types

Application	Laundry Detergents
Customer industry	Home Care and I&I
Market	Global
Products	Dehydol [®] LT 7 and Dehydol [®] LT 7/MB

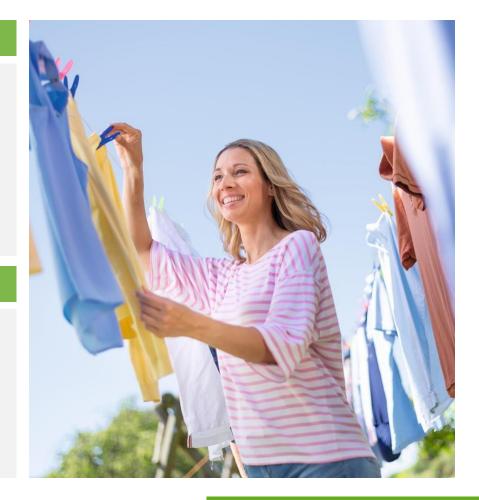
Differenti	ation potential
Customer	Claim removal of eve

- Claim removal of even the toughest soils and stains
- ConsumerSustainable detergentsPerfectly clean laundry

Sustainability performance

- Minority bio-based surfactants
- Readily biodegradable
- Meet requirements of EU Ecolabel, Blue Angel, Nordic Swan and Ecocert
- Dehydol[®] LT 7/MB is RSPO certified

A highly efficient surfactant with very good compatibility in concentrated detergents





Accelerator Sokalan® HP 20

Product informa	tion	Differentiation potential		
Application Customer industry Market	Performance Booster in Laundry and Hand Dishwashing Detergents Home Care and I&I Global	Customer• Boosts performance in surfactant optimized formulations • Enables anti-graying claim • Improves cleaning and foam stability in HDW formulations • Compatible w/ liquid formulasConsumer• Excellent primary cleaning • Prolonged lifetime of textiles • Convenience & energy savings	ECO	8
Angel and Nordic S No CLP label Enables low tempe	s of EU Ecolabel, Blue Swan rature washing	 Supports sustainable convenience claims, e.g. "compaction", "energy-saving", "easy-to-use" High compatibility in liquid detergents that enables compact mono-doses / concentrates Sokalan[®] HP 20 EcoBalanced up to 100% bio- 	N/P	
 Enhances removal particulate stains a lifetime of textiles 	of bleachable and nd therefore prolongs	 enables compact mono-doses / concentrates Sokalan[®] HP 20 EcoBalanced up to 100% biocertified via mass balance and with reduced Product Carbon Footprint mance Booster for liquid detergents 	800	· ~ ?

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Accelerator Sokalan® HP 96

Product informa	tion	Differenti	ation potential	· · · ·
Application Customer industry	Performance Booster in Laundry Detergents Home Care and I&I	Customer	 Supports anti-graying, stain removal and low temperature washing claims Delivers superior performance 	
Market	Global		 Easy to formulate into liquid concentrates 	
		Consumer	 Good primary cleaning and anti- graying prolongs life of textiles Energy savings 	Street Barrier
				The second second second

Sustainability performance

- Meets requirements of EU Ecolabel and Blue Angel
- No CLP label
- High performance at low temperature
- With Sokalan[®] HP 96 surfactant content can be reduced
- Prevents graying caused by particulate stains
- Boosts stain removal of particulate stains (e.g., clay, mud)

Unique and universal multi-benefit Performance Booster for Laundry Detergents





Accelerator Sokalan[®] SR 400 A

Product informa	tion	Differenti	ation potential
Application Customer industry	Performance Booster in Laundry Detergents Home Care	Customer	 Enables low temperature washing claim Innovative performance booster
arket	EMEA, APAC	Consumer	for laundry formulationsProlonged lifetime of textilesEnergy savings

Sustainability performance

- Enables high cleaning performance at low washing temperatures
- Protects textiles and lets clothes last longer
- Excellent action against oily and fatty stains

Strong Performance Booster to combat oily and fatty stains in Laundry Detergents





Accelerators Tinopal[®] CBS Types

Product information			
Application	Laundry Detergents		
Customer industry	Home Care and I&I		
Market	Global		
Products	Tinopal [®] CBS-X, Tinopal [®] CBS SP Slurry 33		

Differentiation potential

- Customer Enable whitening and low temperature washing claims
 - Support differentiation from low performing competitors
- **Consumer** Brilliant whiteness keeps clothes looking new for longer
 - Energy savings through low temperature washing

Sustainability performance

- Meet requirements of EU Ecolabel and Blue Angel
- Brilliant white effects on cellulosic fabrics, especially at low-tomedium washing temperatures
- Prolong lifetime of textiles
- Easy to formulate in all detergent types; especially suitable for modern detergents such as high- and ultra-high concentrates





Accelerators Lavergy[®] Pro 106 types

Product information		Differentiation potential	
Application Customer industry Market	Laundry and Hand Dishwashing Detergents Home Care and I&I Global	Customer	 Biological and renewable alternatives High compatibility in liquid formulations Enable formula compaction and optimization Sustainable high performance Energy savings (low temp.)
 Sustainability per sector of the sector of th		Angel	irements of EU Ecolabel and Blue

- temperatures
- Enhance washing efficiency and water savings
- Enable concentrated formulations, therefore reduce CO_2
- Support soaking process and direct application for removal of persistent stains in manual dish washing

Lavergy*



Renewable ingredients for the removal of tough stains in sustainable laundry and hand dish formulations

Accelerator Lavergy[®] Pro 114 LS

Product informa	tion	Differenti	ation potential	La Car
Application Customer industry Market	Laundry and Hand Dishwashing Detergents Home Care and I&I Global	Customer	 Biological and renewable alternative High compatibility in liquid formulations Enables formula compaction and optimization 	
		Consumer	Textiles looking new for longerEnergy savings (low temp.)	

Sustainability performance

- Readily biodegradable liquid protease enzyme
- Enables energy savings with lower wash temperatures
- Enhances washing efficiency and water savings
- Enables concentrated formulations, therefore reduces CO₂

- Efficient non-boron stabilizing technology
- Meets requirements of EU Ecolabel, Blue Angel and Nordic Swan
- No preservation added
- Supports soaking process and direct application for removal of persistent stains in manual dish washing

Renewable non-boron stabilized ingredient for the removal of tough stains in sustainable laundry and hand dish formulations





Accelerator Lavergy[®] C Bright 100 L

Product informa	ation	Differentiation potential
Application Customer industry Market	Laundry Detergents Home Care and I&I Global	 Customer High compatibility in liquid formulations Enables anti-graying claims Biological and renewable alternative
Sustainability pe	erformance	 Consumer Anti-graying keeps textiles looking new for longer Energy savings (low temp.)
 high compatibility in Delivers strong ant low temperatures of 	ti-graying performance at	 Enhances washing efficiency and water savings Majority bio-based* Meets EU Ecolabel criteria Textiles look new for longer

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Anti-graying Cellulase that enables cleaner results at lower temperatures

Accelerator Our RSPO-certified surfactants portfolio

Product information		Differentiation potential		
Application Customer industry Market	Palm-based surfactants for various Home Care and I&I applications Home Care and I&I EMEA	Customer	 Enable sustainable sourcing claims and qualify for "RSPO Mixed"-Product certification Reduced CO₂ footprint Support customers' own path to sustainable development 	
Products	see next slide	Consumer	 Contribution to the sustainable 	
FIUUUUUS	SEE HEXT SILLE	Consumer	cultivation of palm (kernel) oil	

Sustainability performance

- In 2021, we significantly expanded our RSPO portfolio by achieving our commitment of procuring all palm oils through RSPO (Roundtable on Sustainable Palm Oil)-certified sources by 2020
- By 2025, the intention is to extend this commitment also to significant Palm (kernel) oil intermediates
- RSPO-certified production of palm (kernel) oil shows around 36% lower carbon footprint than the non-certified production
- RSPO certified ingredients support 7 of the 17 UNSDGs

RSPO certified products meet major sustainability trends and needs





Accelerator Your choice: Surfactants available with RSPO certification

Nonionic Surfactants				Anionic Surfactants		
Alcohol Ethoxylates	Alkyl Polyglucosides	Low-foaming Nonionic Surfactants	Emulsifiers and Solubilizers	Fatty Alcohol Ethersulfates	Fatty Alcohol Sulfates	
Dehydol [®] LS 6	Glucopon [®] 215 UP	Dehypon [®] 2574	Dehydol [®] 04 DEO	Texapon [®] N 70/MB	Texapon [®] LS 30/MB	
Dehydol [®] LT 6	Glucopon [®] 225 DK	Dehypon [®] LS 24	Emulan [®] AT 9	Texapon [®] NSO UP/MB		
Dehydol [®] LT 7/MB	Glucopon [®] 425 N/HH	Dehypon [®] LS 36	Lutensol [®] PO 5			
Dehydol [®] 100	Glucopon [®] 600 CSUP	Dehypon [®] LS 45				
Lutensol [®] A 7 N/MB	Glucopon [®] 650 EC	Dehypon [®] LS 54	Special Surfactants	Others		
Lutensol [®] AT 25 E	Plantatex [®] LLE	Plurafac [®] LF 500	Dehydol [®] 980	Blends	Amine Oxides	
Lutensol [®] AT 25 FL.		Plurafac® LF 802	Disponil [®] AFX 4030	Dehypound [®] GL	Dehyton [®] PL	
Lutensol [®] AT 25 PWD.	Amine Ethoxylates	Plurafac [®] LF 1300		Dehypound [®] LLD 60	Dehyton [®] P CAW	
Lutensol [®] AT 50 PWD.	Demelan [®] VPC	Dehypon [®] KE 3447		Dehypound [®] SK 7	Cocoamidopropyl	
Lutensol [®] AT 80 E		m_{O}	NOW		betaine	
Lutensol [®] AT 80 PWD.	Foam Suppressors	1	re than	Wax Dispersion	Dehyton® PK 45/MB	
Lutensol® M 5/MB	Dehypon [®] OCP 502		50	Plantatex [®] HCC		

...for more information, please contact your account manager!



Lutensol[®] M 7

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