

Schill+Seilacher

struktol®

THE GREEN ISSUE



SOLUTIONS | TAILORMADE | WORLDWIDE





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Applications and Benefits

FROM HUMBLE ROOTS IN LEATHER PROCESSING CHEMICALS ...



**SCHILL+SEILACHER'S STORY BEGAN IN 1877, WHEN KARL SCHILL
AND CHRISTOPH SEILACHER STARTED MANUFACTURING CHEMICALS
FOR LEATHER PROCESSING IN HEILBRONN, GERMANY.**

IN 1925 SCHILL+SEILACHER OPENED A SECOND PRODUCTION SITE

1877

Following the Second World War, Schill+Seilacher moved its Heilbronn operation to Böblingen, a suburb of Stuttgart. Although both locations Hamburg and Böblingen are sharing the same name, they are serving different industries and working independently of each other. Schill+Seilacher ventured into the North American market in 1979 with the establishment of Struktol® Company of America. SCA is located at the heart of the American tire industry, just outside Akron, Ohio, and majorly supplies the plastic, rubber and tire industries. Schill+Seilacher Chemie GmbH, situated on the banks of the Elbe just south of Dresden was acquired in the early 1990s and serves as both a production and research facility for silicone based chemistry.

SNS Nanotech in Hudson, Ohio, specializes in developing complex nanofiber matrices and is the youngest member of the Schill+Seilacher Group. Their proprietary technology enables the fabrication of self-supporting mats that can entrap particles within a nanofiber matrix or encapsulate them within individual nanofibers.

WORLDWIDE

... TO A GLOBAL PLAYER IN THE PRODUCTION OF INDUSTRIAL PROCESS ADDITIVES.

IN HAMBURG TO CATER TO THE EXPANDING NEEDS OF ITS GROWING CUSTOMER BASE AND SECURE BETTER ACCESS TO INTERNATIONAL MARKETS THROUGH THE CITY'S BUSTLING PORT.

DIN EN ISO 9001: Our quality guarantee

The high quality standard of our products is guaranteed by our certified quality management system (ISO 9001), which integrates our highly qualified application experts, state of the art laboratories and testing equipment, and modern production methods into an effective and continually improving team.

DIN EN ISO 14001, DIN EN ISO 50001:

Our commitment to the environment

Our commitment to reducing waste and managing energy consumption efficiently has been at the core of our business for many years. By helping us work more efficiently and cost effective, our ISO 14001 and ISO 50001 certification promise better products through environmental responsibility.

Specific information of site certifications can be found on page 14.

PERLASTAN SARCOSINATE SURFACTANTS



PERLASTAN Sarcosinate Surfactants

Surfactants based on amino acid N-methyl glycine (sarcosine).

Product Name	INCI Name	Active Ingredient	PO/PKO
PERLASTAN L-30	Aqua, Sodium Lauroyl Sarcosinate	30%	0/21
PERLASTAN C-30	Aqua, Sodium Cocoyl Sarcosinate	30%	0/20
PERLASTAN M-30	Aqua, Sodium Myristoyl Sarcosinate	30%	0/23
PERLASTAN ON-60V	Aqueous concentrate of Sodium Oleoyl Sarcosinate	60%	52/0

ACIDIC FORM

Product Name	INCI Name	Active Ingredient	PO/PKO
PERLASTAN L	Lauroyl Sarcosine	94%	0/74.5
PERLASTAN C	Cocoyl Sarcosine	94%	0/71
PERLASTAN M	Myristoyl Sarcosine	94%	0/82
PERLASTAN OCP	Oleoyl Sarcosine	90%	78.5/0

ATTRIBUTES

- very mild to skin and eyes
- lowers irritation potential of severe surfactants
- offers buffer capacity at skin pH
- provides rich foam and smooth skin feel
- resistant to sebum delathering
- environmentally friendly
- rapid biodegradability
- compatible with cationic surfactants
- metal corrosion inhibition

APPLICATIONS

- rinse-off applications for skin care and hair care like body wash, aerosol shampoos, liquid hand soaps, cleansing wipes, shaving gels, surgical scrubs, hair shampoos, hair conditioners
- dental and oral hygiene products like toothpastes and mouth washes
- eye care products like eye drops, contact lense cleansers

PERLASTAN GLUTAMATE SURFACTANTS



PERLASTAN Glutamate Surfactants

Mild and good foaming surfactants based on L-glutamic amino acid.

Product Name	INCI Name	Dry Substance	PO/PKO	Remarks
PERLASTAN SC 25 NKW	Aqua, Disodium Cocoyl Glutamate, Sodium Cocoyl Glutamate	25%, pH 6.5	0/17	COSMOS, ECOCERT, NATRUE, ECO-Label, Nordic Swan, ECOGARANTIE
PERLASTAN SCG 35	Aqua, Disodium Cocoyl Glutamate, Propylene Glycol, Sodium Chloride	35%, pH 10	0/15	ECO-Label, Nordic Swan
PERLASTAN SCG 35 MS	Aqua, Disodium Cocoyl Glutamate, Isopropyl Alcohol, Sodium Chloride	35%, pH 10	0/17	ECO-Label, Nordic Swan
PERLASTAN SCG 38 CE	Aqua, Disodium Cocoyl Glutamate, Sodium Chloride	38%, pH 10.5	0/15.5	COSMOS, ECOCERT, NATRUE, ECO-Label, Nordic Swan
PERLASTAN SCG 50	Aqua, Disodium Cocoyl Glutamate, Propylene Glycol, Sodium Chloride	50%, pH 10	0/20	ECO-Label, Nordic Swan
PERLASTAN SCG 50 HC	Aqua, Disodium Cocoyl Glutamate, Isopropyl Alcohol, Sodium Chloride	50%, pH 10	0/21	ECO-Label, Nordic Swan
PERLASTAN SCG 50 ZPF	Aqua, Disodium Cocoyl Glutamate, Propanediol, Sodium Chloride	50%, pH 10	8/0	COSMOS, ECOCERT, NATRUE, ECO-Label, Nordic Swan, ECOGARANTIE
PERLASTAN SL ^{NEW}	Aqua, Sodium Lauroyl Glutamate	25%, pH 8.5	0/16.5	COSMOS, ECOCERT, NATRUE, ECO-Label, Nordic Swan
PERLASTAN SLG 38	Aqua, Sodium Lauroyl Glutamate, Propylene Glycol, Sodium Chloride	38%, pH 9.5	0/16	ECO-Label, Nordic Swan

ATTRIBUTES

- remarkably mild to skin and eyes
- lowers irritation potential of severe surfactants
- comfortable and soft feeling of the skin during and after use
- gentle cleansing
- excellent foaming power
- offers buffer capacity at skin pH
- environmentally friendly
- useful for certified natural cosmetics
- no tears formulations

APPLICATIONS

- rinse off products for skin and hair like facial and body cleansers, hair shampoos, baby bath soaps
- dermatological products and allergen-controlled medical cleansers

PERLASTAN SPECIAL SURFACTANTS

PERLASTAN Glutamate Surfactants

Mild and good foaming surfactants based on L-glutamic amino acid.

Product Name	INCI Name	Dry Substance	PO/PKO	Remarks
PERLASTAN SC 25 NKPF	Aqua, Disodium Cocoyl Glutamate, Sodium Cocoyl Glutamate	25%, pH 6.5	0/0	COSMOS, ECOCERT, NATRUE, ECO-Label, Nordic Swan, ECOGARANTIE
PERLASTAN SCG 35 PPF	Aqua, Disodium Cocoyl Glutamate, Propylene Glycol, Sodium Chloride	35%, pH 10	0/0	ECO-Label, Nordic Swan
PERLASTAN SCG 35 IPF	Aqua, Disodium Cocoyl Glutamate, Isopropyl Alcohol, Sodium Chloride	35%, pH 10	0/0	ECO-Label, Nordic Swan
PERLASTAN SCG 50 PPF	Aqua, Disodium Cocoyl Glutamate, Propylene Glycol, Sodium Chloride	50%, pH 10	0/0	ECO-Label, Nordic Swan
PERLASTAN SCG 50 IPF	Aqua, Disodium Cocoyl Glutamate, Isopropyl Alcohol, Sodium Chloride	50%, pH 10	0/0	ECO-Label, Nordic Swan

PERLASTAN Mass Balance Surfactants

RSPO Certificate Number CU-RSPO SCC-846664

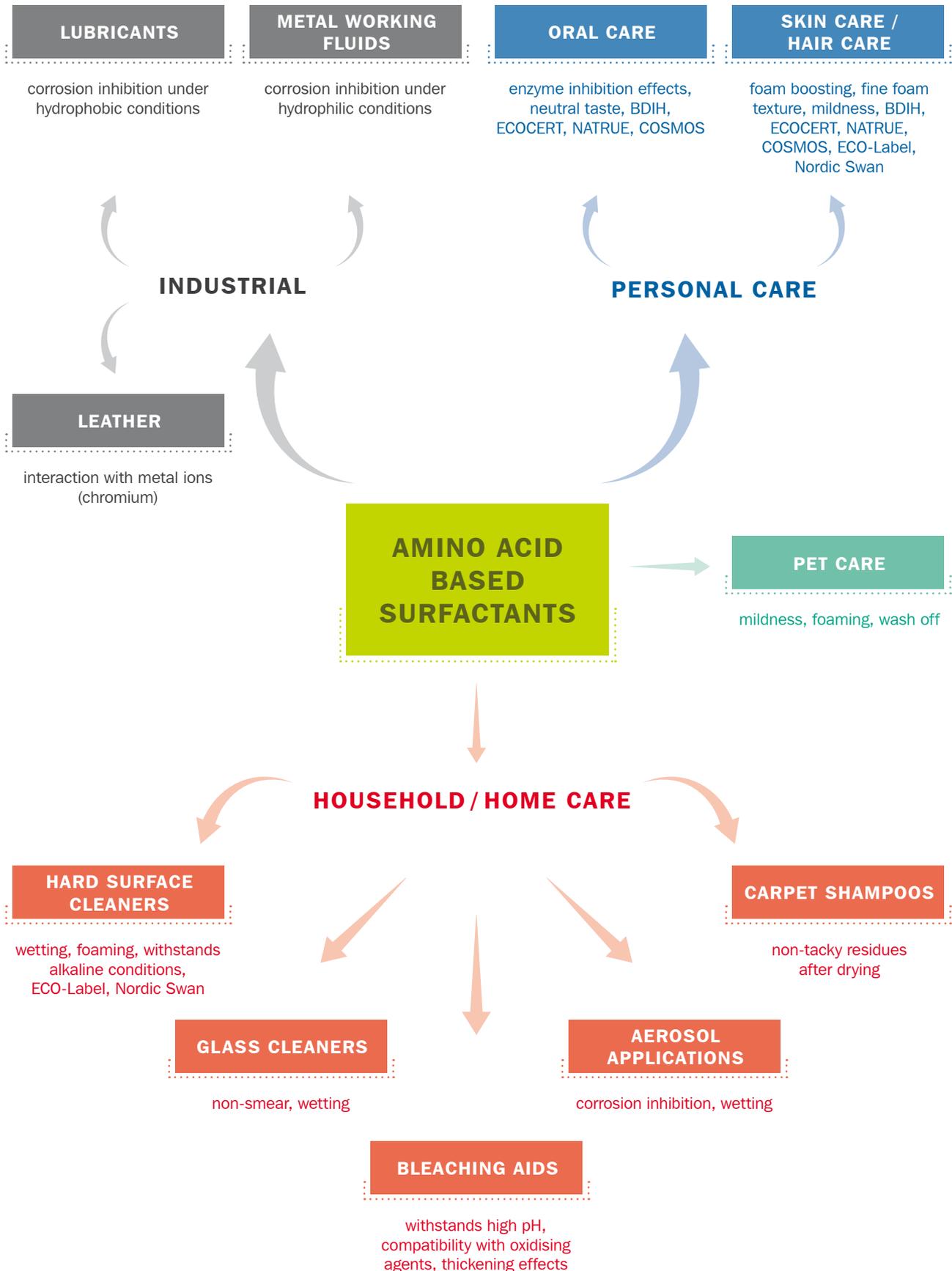
Product Name	INCI Name	Dry Substance	PO/PKO	Remarks
PERLASTAN SLG 38 MB ^{NEW}	Aqua, Sodium Lauroyl Glutamate, Propylene Glycol, Sodium Chloride	38%, pH 9.5	0/16	ECO-Label, Nordic Swan
PERLASTAN L-30 MB ^{NEW}	Aqua, Sodium Lauroyl Sarcosinate	30%, pH 8.5	0/21	
PERLASTAN L MB ^{NEW}	Lauroyl Sarcosine	94%, pH 4 (1%)	0/74.5	

RHEO2GREEN Self Thickening Concentrates

Product Name	INCI Name	Dry Substance	PO/PKO	Remarks
RHEO2GREEN1 ^{NEW}	Aqua, Lauryl Glucoside, Disodium Cocoyl Glutamate	42%, pH 9.5	0/18.5	COSMOS, ECOCERT, NATRUE, ECO-Label, Nordic Swan

AMINO ACID BASED SURFACTANTS

APPLICATIONS AND BENEFITS



AMINO ACID BASED SURFACTANTS

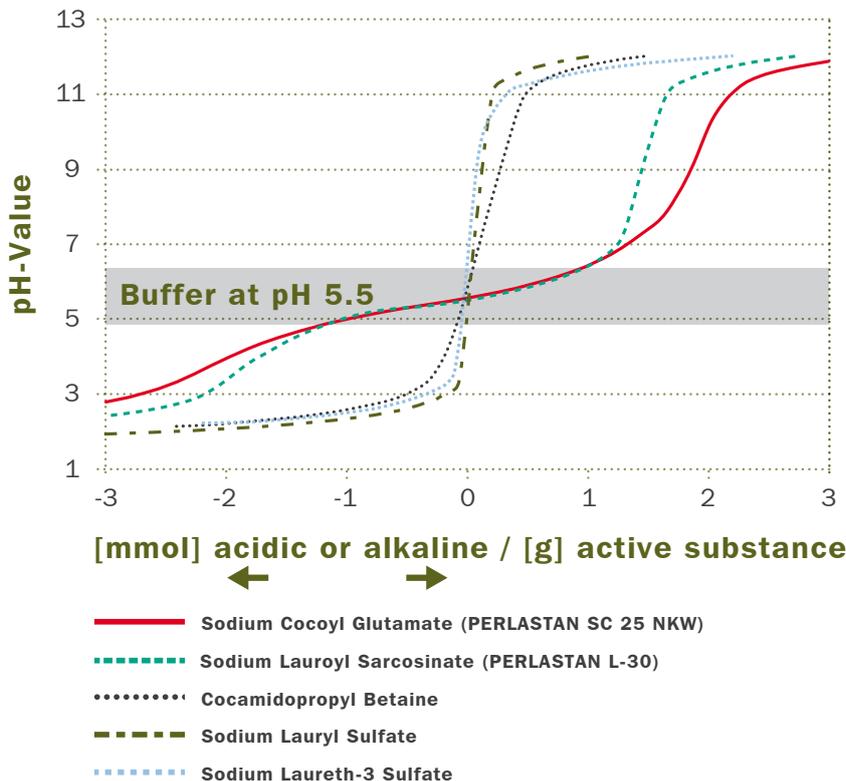
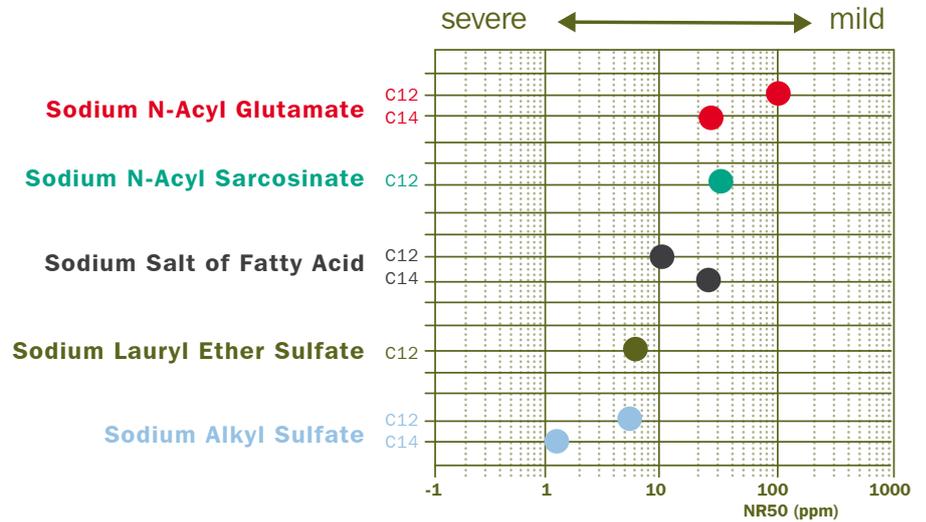
ATTRIBUTES

MILDNESS TO SKIN AND EYES

It was found by cytotoxicity tests that N-acyl amino acids achieve low toxicity for cultured human skin cells.

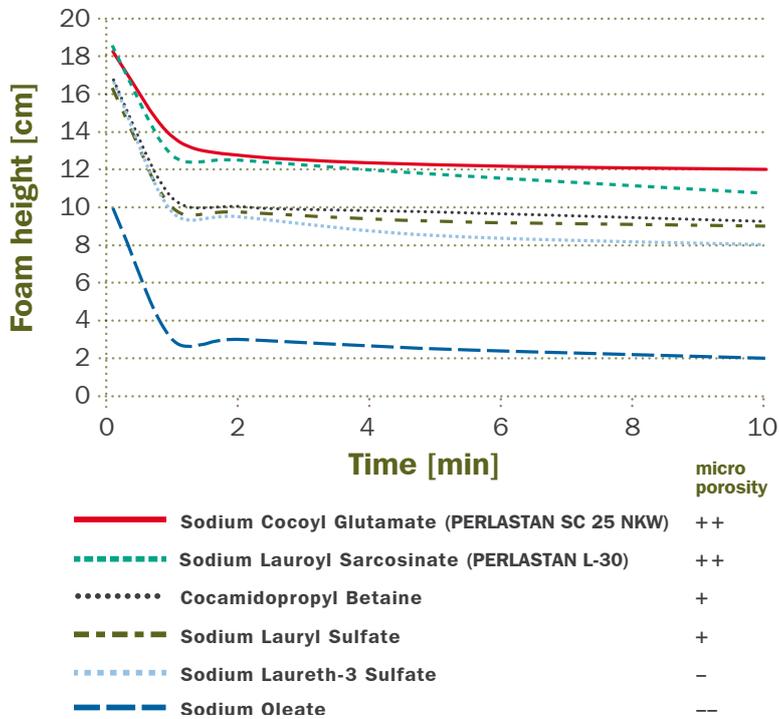
The shorter the fatty acid chain part of amino acid surfactant the milder it behaves to human skin cells.

M. Kanari, Y. Kawasaki and K. Sakamoto
J. Soc. Cosmet. Chem., 27, 498 (1993)



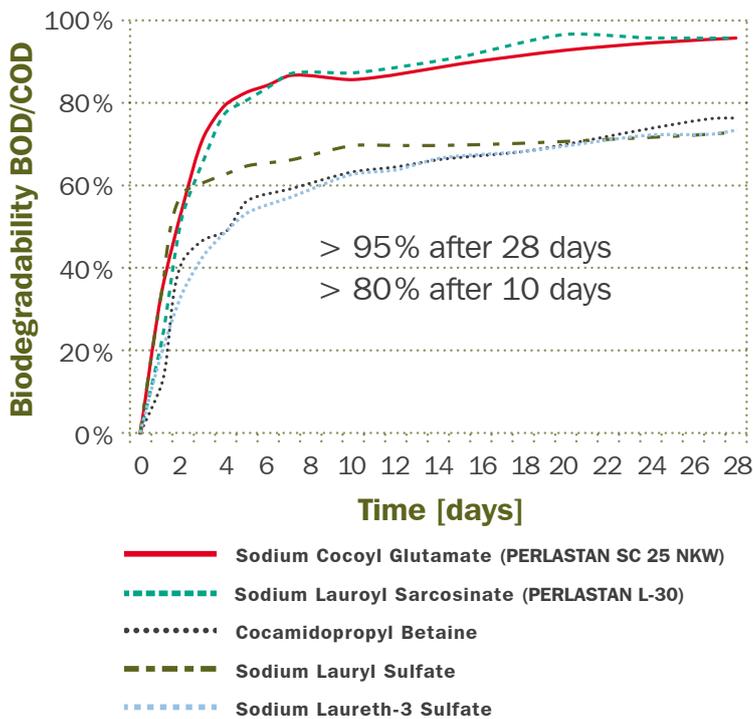
BUFFER CAPACITY AT PH OF SKIN

PERLASTAN surfactants generally show at pH of 5 to 6.5 the buffer capacity of an unneutralized carboxylic acid. Especially the pH = 5.5 of the skin is supported during cleansing processes.



PROMOTES FINE LATHER

Foam height and stability is comparable to extremely good foaming surfactants like sulfate and betaine surfactants. Most important factor is that the amino acid based surfactants provides very fine porous, mousse-like foam.



ENVIRONMENTALLY FRIENDLY, HIGHLY AND RAPIDLY BIODEGRADABLE

Bacterial decomposition under aerobic (manometric respirometry test; OECD 301F) as well as anaerobic (ISO 11734) conditions takes place faster than with most other types of commercially available anionic surfactants. Sarcosinate and glutamate surfactants reach extremely high degradation values close to 100 %.

POLYFIX ZINC DIRICINOLEATE CONCENTRATES



POLYFIX Odour Absorbers

Concentrates of zinc diricinoleate complexes activated by chelating agents.

Product Name	INCI Name / Ingredient	PO/PKO	Remarks
POLYFIX ZRC 25 GP	Aqua, Zinc Ricinoleate, Tetrasodium Glutamate Diacetate, Propanediol	4/0	Personal Care Household, Industrial and Institutional Use
POLYFIX ZRC 50 TB <small>NEW</small>	Zinc Ricinoleate, Laureth-3, Tetrahydroxypropyl Ethylenediamine, Propylene Glycol	0/20	Personal Care Household, Industrial and Institutional Use
POLYFIX ZRC 30 MT	Water, Zinc Diricinoleate, Chelating Agent, Alcohol Ethoxylated	0/0	Household, Industrial and Institutional Use

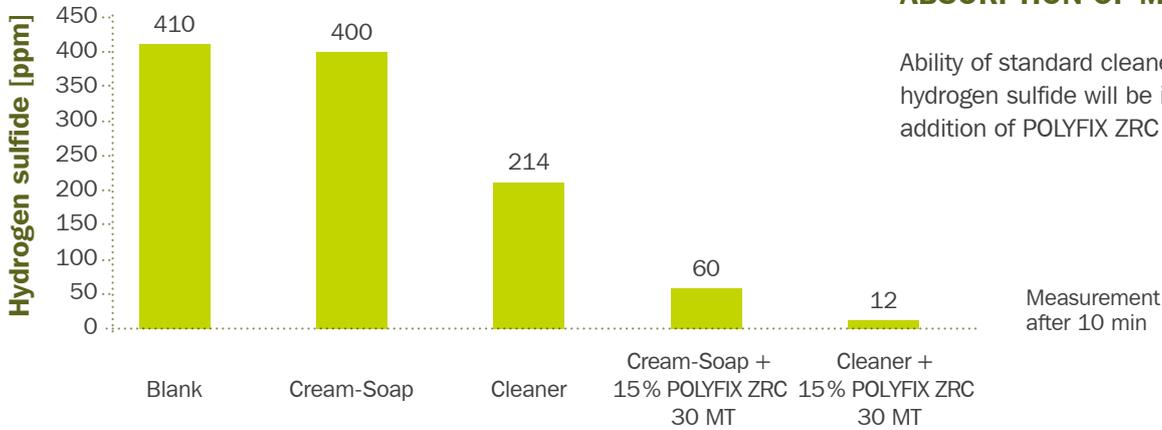
ATTRIBUTES

- eliminates bad odour caused e.g. by amines, mercaptanes, hydrogen sulfides, organic acids, ammonia, thio esters etc.
- tolerant to natural transpiration
- readily biodegradable
- water soluble and cold processable
- compatible with non-ionic and anionic surfactants
- recommended use level of 1 - 10 %
- will not affect most fragrances
- active as limescale remover

APPLICATIONS

- personal care formulations like deodorants, hand sanitizers, foot creams, intimate hygiene products etc. against body odour
- blends like hair depilatory creams, permanent hair straightening or permanent hair wave with unpleasant smell caused by raw materials
- broad application range in homecare and I&I cleaners for eliminating smells caused by urine, excrements, spoiled foods, tobacco etc.
- pet care products like dog shampoos, cat litter fillers, cleaners against "scent marking" etc.

PERFORMANCE

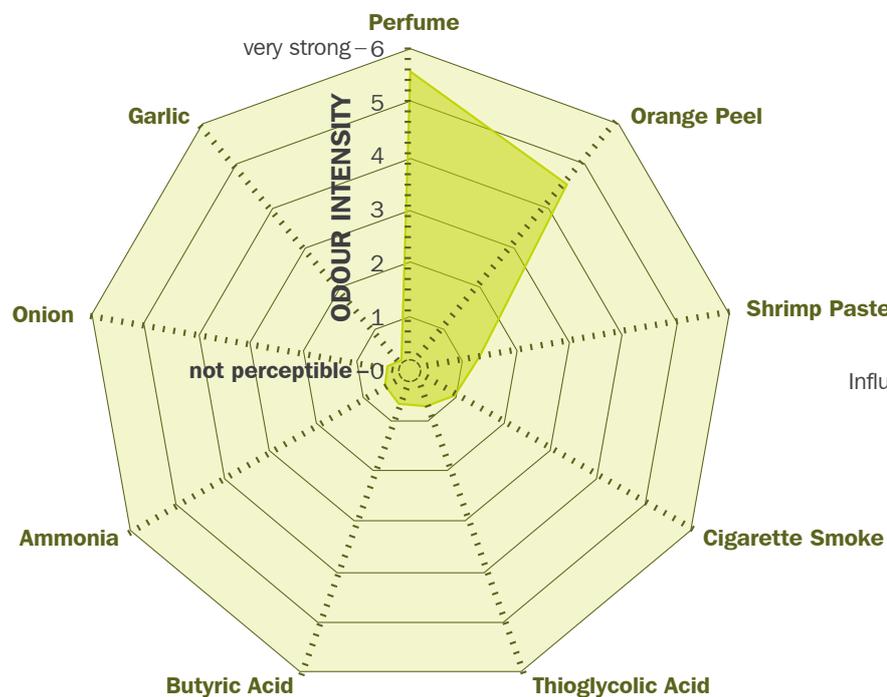
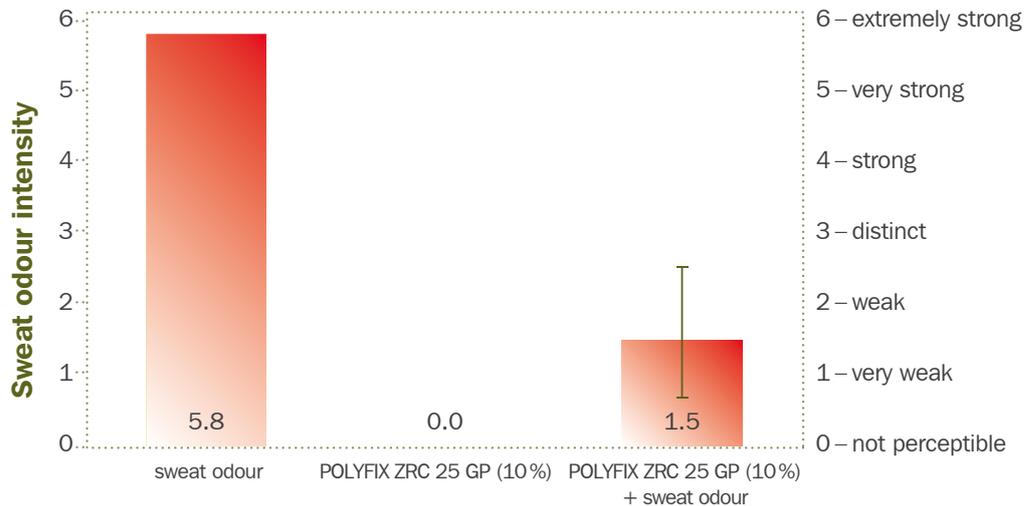


ABSORPTION OF MALODOUR

Ability of standard cleaners to absorb hydrogen sulfide will be increased by addition of POLYFIX ZRC 30 MT.

ODOUR REDUCTION OF HUMAN SWEAT

Artificial sweat odour absorption test performed by trained panellists using an olfactometric sampling unit shows drastically sweat odour intensity decrease by application of 10% solution of POLYFIX ZRC 25 GP in comparison to a reference.



INFLUENCE ON ODOURS

Statistical survey confirms excellent efficacy of POLYFIX ZRC 30 MT by fighting against unpleasant odours and its compatibility with fragrances.

Influence of POLYFIX ZRC 30 MT (diluted) - clockwise arrangement -
 - untreated substance Δ intensity 6
 - treated substance

SCHILL+SEILACHER AT A GLANCE

→ BOEBLINGEN

SPECIALITY CHEMICALS FOR:

DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
DIN EN ISO 50001:2011
RSPO CERTIFICATION MASS BALANCE

FIBRES
TEXTILES
LEATHER
PAPER
COSMETICS
FINE CHEMICALS



→ HAMBURG

SPECIALITY CHEMICALS FOR:

DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
DIN EN ISO 50001:2011

RUBBER ADDITIVES
ANTIFOAMS
EPOXY PREPOLYMERS
AND FLAME RETARDANTS
LATEX ADDITIVES
SILICONES
RELEASE AGENTS



→ PIRNA

SPECIALITY CHEMICALS FOR:

DIN EN ISO 9001:2015
(ONLY FOR BOEBLINGEN PRODUCTS)

SILICONES
PU INDUSTRY
PAPER
TEXTILES
COSMETICS
FIBRES
LEATHER



→ HUDSON / OHIO / USA PRODUCER OF:

DIN EN ISO 9001:2015
DIN EN ISO 13485:2003

NANOFIBRE MATRICES



→ STOW / OHIO / USA VILLA RICA / GEORGIA / USA SPECIALITY CHEMICALS FOR:

DIN EN ISO 9001:2008

PLASTICS
WOOD COMPOSITES
RUBBER
LEATHER



**We at Schill+Seilacher "Struktol" GmbH have met all our REACH registration obligations for 2010 and 2013.
We are still active in our consortia and have finished the registration process for the 2018 deadline.
We also work closely with our suppliers to make sure that all our new raw materials are also
REACH compliant.
For further information, please contact our Regulatory Affairs Department at REACH@struktol.de**

WWW.SCHILLSEILACHER.DE

Disclaimer:

Above mentioned technical specifications rely on an analysis as of: 06.2018.

The mentioned attributes and application proposals are only non-binding application possibilities and application proposals for our products. Our advice and recommendations whether verbal, in writing or by way of tests do not excuse the customer from his or her own examination regarding the applicability for the intended procedures and purposes. The mentioned attributes and application proposals are no assurance for a certain further processing. Any assurances must be agreed upon explicitly and in writing between the customer and us.

We also advise you, that any further processing and the distribution of the further processed products is part of the customers sole scope of responsibilities as the producer of the new product.



Any Questions?

Our service team will be pleased to answer any questions and assist you with advice and information. We can also provide you with contact data of our local offices, distributors and agencies. Data sheets and samples of our products are available upon request.

For more information please contact:

Schill+Seilacher GmbH

Schoenaicher Strasse 205

71032 Boeblingen (Germany)

Phone: + 49 7031 282-241

Fax: + 49 7031 282-446

E-Mail: KHM2018@schillseilacher.de

Visit also our site:

www.schillseilacher.de