

Product data summary

February 2025

TABLE OF CONTENTS

Acids	3
Acids from renewable sources	3
Alcohols	3
Alcohols from renewable sources	3
Aldehydes	3
Alkoxylated polyalcohols	5
Allyl ethers	5
Animal nutrition products	8
Carbon source for intumescent systems	6
Carbon source for intumescent systems from renewable sources	6
Deicers	5
Feed grade acids	8
Food additives	8
Hydroxy acids	4
Liquid Fertilizers	7
Mixed products	5
Molecular structures	9–10
Nonionic diols	4
Organic & inorganic salts	6
Oxetanes	5
Oxetanes from renewable sources	5
Oxo side streams	3
Plasticizers	7
Plasticizers from renewable sources	7
Polyalcohols	4
Polyalcohols from renewable sources	4
PVC co-stabilizers	6
PVC co-stabilizers from renewable sources	6
Safety glass plasticizers	7
Speciality polymers	6
Specialty thermoplastic co-polyesters	6
Thermal management fluids	7

Product data summary

This brochure contains a summary of our product range. More detailed information and specifications of each product are available on www.perstorp.com or through your Perstorp representative.

Aldehydes

	Appearance	Reactive groups (Aldehyde functionality)	Molecular weight (g/mol)	Purity min. (%)
n-Butyraldehyde	Liquid	1	72.1	99.0
Propionaldehyde	Liquid	1	58.1	99.0
Formalin (conc. 30-50%)	Liquid	1	30.0	
Isobutyraldehyde	Liquid	1	72.1	99.0
2-Ethylhexanal (2-EHAL)	Liquid	1	128.2	98.5

Acids

	Appearance	Reactive groups	Molecular weight (g/mol)	Purity min. (%)	Concentration (%)
Formic Acid	Liquid	1 carboxyl	46.0		75 or 85
Propionic Acid	Liquid	1 carboxyl	74.1	99.5	
Butyric Acid	Liquid	1 carboxyl	88.1	99.5	
Valeric Acid	Liquid	1 carboxyl	102.1	98.5	
Valeric Acid Pure	Liquid	1 carboxyl	102.1	99.4	
2-Ethylhexanoic Acid (2-EHA)	Liquid	1 carboxyl	144.2	99.5	
Phthalic Anhydride	Molten	1 anhydride	148.1	99.8	
Isononanoic Acid (3,5,5-Trimethyl-hexanoic Acid)	Liquid	1 carboxyl	158.2	97.5	

Acids from renewable sources

	Fossil Equivalent	Renewable carbon content*
Valeric Acid Pro 20	Valeric Acid	20%
Valeric Acid Pro 100	Valeric Acid	100%
2-Ethylhexanoic Acid Pro 25	2-Ethylhexanoic Acid	25%
2-Ethylhexanoic Acid Pro 100	2-Ethylhexanoic Acid	100%

* Based on traceable mass-balance

Oxo side streams

	Appearance	Application area	Description
Polyol H8	Light yellow liquid	Mining	2-EH Heavy ends

Alcohols

	Appearance	Reactive groups (Hydroxyl functionality)	Molecular weight (g/mol)	Purity min. (%)	Hydroxyl number (mg KOH/g)	Viscosity (mPas, 20°C)
2-Ethylhexanol (2-EH)	Liquid	1	130.2	99.6	431	9.7
2-Propylheptanol (2-PH)	Liquid	1	158.3	99.5 ¹⁾	354	15.3
Cyclic Trimethylolpropane Formal (CTF)	Liquid	1	146.2		390	80

¹⁾Purity as C10 alcohols

Alcohols from renewable sources

	Fossil Equivalent	Renewable carbon content*
2-Ethylhexanol Pro 100	2-Ethylhexanol	100%
Evyron™ CT60	Cyclic Trimethylolpropane Formal	57%

Polyalcohols

	Appearance	Reactive groups (Hydroxyl functionality)	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Melting point (°C)
Neopentyl Glycol (Neo)	Flakes/Molten	2	104	1,075	129
Neopentyl Glycol 90 (Neo 90)	Liquid (90% in water)	2	104	1,075	35
Pentaspigroglycol (PSG)	White fine powder	2	304	369	195
Trimethylolpropane (TMP)	Flakes/Molten	3	134	1,254	58
Di-Trimethylolpropane (Di-TMP)	Flakes	4	250	896	106-115
Pentaerythritol mono (Penta)	Crystals	4	136	1,645	260
Penta EXCETEQ™	Crystals	4	142	1,615	250
Pentaerythritol nitration	Crystals	4	136	1,645	260
Pentaerythritol ICX	Crystals	4	136	1,645	260
Di-Pentaerythritol 93 (Di-Penta 93)	Crystals	6	254	1,320	222
Di-Pentaerythritol 90 (Di-Penta 90)	Crystals	6	254	1,320	222

Polyalcohols from renewable sources

Pro-Environmental Product	Fossil Equivalent	Renewable carbon content*
Evyron™ DT50	Di-Trimethylolpropane	50%
Evyron™ T20 flakes	Trimethylolpropane flakes	17%
Evyron™ T20 molten	Trimethylolpropane molten	17%
Evyron™ T50 flakes	Trimethylolpropane flakes	50%
Evyron™ T50 molten	Trimethylolpropane molten	50%
Evyron™ T100 flakes	Trimethylolpropane flakes	100%
Evyron™ T100 molten	Trimethylolpropane molten	100%
Neeture™ 90 N20	Neopentyl Glycol 90	20%
Neeture™ 90 N40	Neopentyl Glycol 90	40%
Neeture™ 90 N100	Neopentyl Glycol 90	100%
Neeture™ N20 flakes	Neopentyl Glycol flakes	20%
Neeture™ N20 molten	Neopentyl Glycol molten	20%
Neeture™ N40 flakes	Neopentyl Glycol flakes	40%
Neeture™ N40 molten	Neopentyl Glycol molten	40%
Neeture™ N100 flakes	Neopentyl Glycol flakes	100%
Neeture™ N100 molten	Neopentyl Glycol molten	100%
Voxtar™ D100	Di-Pentaerythritol 90	100%
Voxtar™ D40	Di-Pentaerythritol 90	40%
Voxtar™ D40-93	Di-Pentaerythritol 93	40%
Voxtar™ E100	Penta Exceteq™	100%
Voxtar™ E40	Penta Exceteq™	40%
Voxtar™ M100	Pentaerythritol mono	100%
Voxtar™ M40	Pentaerythritol mono	40%

* Based on traceable mass-balance

Hydroxy acids

	Appearance	Reactive groups	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Acid number (mg KOH/g)
Bis-MPA™	Powder	2 hydroxyl, 1 carboxyl	134.1	837 ²⁾	418 ²⁾
DMPA™ Regular	Granules	2 hydroxyl, 1 carboxyl	134.1	837 ²⁾	418 ²⁾
DMPA™ Special	Powder	2 hydroxyl, 1 carboxyl	134.1	837 ²⁾	418 ²⁾

²⁾ Theoretical value

Nonionic diols

	Appearance	Reactive groups (Hydroxyl functionality)	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Viscosity (mPas)
Ymer™ N90	Amorphous	2	1,200	90	66 (50°C)
Ymer™ N120	Amorphous	2	1,000	110	60 (50°C)
Ymer™ N180	Liquid	2	600	180	189 (25°C)

Alkoxyated polyalcohols

	Appearance	Reactive groups (Hydroxyl functionality)	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Viscosity (mPas, 23°C)
Polyol 3165	Liquid	3	1,010	165	350
Polyol 3380	Liquid	3	444	380	360
Polyol 3610	Liquid	3	275	610	700
Polyol 3611	Liquid	3	275	610	700
Polyol 3990	Liquid	3	170	990	4,500
Polyol R3430	Liquid	3	398	425	400
Polyol R3530	Liquid	3	310	530	2,000
Polyol R3540	Liquid	3	310	540	550
Polyol R3600	Liquid	3	280	610	700
Polyol 4290	Liquid	4	800	290	450
Polyol 4360	Liquid	4	630	360	1,300
Polyol 4525	Liquid	4	430	525	3,000
Polyol 4640	Liquid	4	360	630	1,100
Polyol R4630	Liquid	4	356	630	1,500
Polyol R4631	Liquid	4	356	630	1,400
Polyol R6405	Liquid	6	830	405	1,800

Oxetanes

	Appearance	Reactive groups	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Viscosity (mPas, 23°C)
Curalite™ Ox	Liquid	1 hydroxyl, 1 oxetane	115.7	485	27
Curalite™ OxPlus	Liquid	2 oxetane	214.3	-	15

Oxetanes from renewable sources

	Fossil Equivalent	Renewable carbon content*
Curalite™ Pro Ox C50	Curalite™ Ox	50%

Mixed products

	Appearance	Reactive group	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Viscosity (mPas)
Polyol PX	Semi-crystalline	2.7 hydroxyl	187	810	650 (50°C)
Polyol PX 70	Liquid (70% in water)	2.7 hydroxyl	187	810	25 (23°C)
Polyol TD	Liquid	1.8 hydroxyl	126	800	150 (23°C)

Allyl ethers

	Appearance	Reactive groups	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Viscosity (mPas, 23°C)
Trimethylolpropane Diallyl Ether 80 (TMPDE 80)	Liquid	1 hydroxyl, 2 allyl	210.7	300	15
Trimethylolpropane Diallyl Ether 90 (TMPDE 90)	Liquid	1 hydroxyl, 2 allyl	213.9	265	20
Trimethylolpropane Monoallyl Ether (TMPME)	Liquid	2 hydroxyl, 1 allyl	174.2	640	130

Deicers

	Appearance	Description
Pergrip™ Run KF	Liquid	AMS 1435 certified Potassium Formate runway deicer
Pergrip™ Run NF	Granulate	AMS 1431 certified Sodium Formate runway deicer
Pergrip™ Lane KF	Liquid	Potassium Formate deicer
Pergrip™ Lane NF	Granulate	Sodium Formate deicer

Specialty polymers

Dendritic Polymers	Appearance	Active group	Molecular weight (g/mol)	Hydroxyl number (mg KOH/g)	Viscosity (Pas, °C)
Boltorn™ H311*	Viscous liquid	Hydroxyl groups	5,700	245	40 (23°C)
Boltorn™ H2004	Viscous liquid	6 hydroxyl	3,200	120	15 (23°C)
Boltorn™ P500	Viscous liquid	Hydroxyl groups	N/A	600	15 (23°C)
Boltorn™ P1000	Viscous liquid	Hydroxyl groups	N/A	470	5 (23°C)
Boltorn™ U3000	Liquid	Unsaturated fatty acid	6,500	15	1 (23°C)
Boltorn™ W3000	Semi-crystalline	Nonionic, unsaturated fatty acid	9,000	15	2 (35°C)

* Diluted with 10% water

Specialty thermoplastic co-polyesters

	IV (dl/g)	Specific gravity (g/cm ³)	Glass transition temperature (°C)	Flexural modulus (GPa)	Total transmittance (%)
Akestra™ 90	0.64	1.28	95	2.5	90
Akestra™ 100	0.64	1.27	100	2.5	90
Akestra™ 110	0.64	1.24	107	2.5	90

Carbon source for intumescent systems

	Appearance	Water solubility (%)	Melting point (°C)	Hydroxyl number (mg KOH/g)
Charmor™ PM40	Micronized powder < 40 µm	5.3	260	1,645
Charmor™ PT40	Micronized powder < 40 µm	4.7	250	1,615
Charmor™ DP40	Micronized powder < 40 µm	0.2	222	1,325
Charmor™ PM15	Micronized powder < 15 µm	5.3	260	1,645
Charmor™ DP15	Micronized powder < 15 µm	0.2	222	1,325

Carbon source for intumescent systems from renewable sources

Pro-Environmental Product	Fossil Equivalent	Renewable carbon content*
Charmor™ Pro DP40 C40	Charmor™ DP40	40%
Charmor™ Pro PM40 C40	Charmor™ PM40	40%
Charmor™ Pro PT40 C40	Charmor™ PT40	40%

PVC co-stabilizers

	Appearance	Product type	Melting point (°C)
Holtac™ DT	Micronized powder < 250 µm	Polyalcohols	106-115
Holtac™ M	Micronized powder < 40 µm	Polyalcohols	260
Holtac™ T	Micronized powder < 40 µm	Polyalcohols	250
Holtac™ D	Micronized powder < 40 µm	Polyalcohols	222

PVC co-stabilizers from renewable sources

Pro-Environmental Product	Fossil Equivalent	Renewable carbon content*
Holtac™ Pro DP H40	Holtac™ D	40%
Holtac™ Pro M H40	Holtac™ M	40%

Organic & inorganic salts

	Appearance	Molecular weight (g/mol)	Purity min. (%)	Solubility in water (20°C)	Concentration (%)
Calcium Formate tech	Crystals	130.1	98	Soluble	
Sodium Formate	Crystals	68.0	97	Soluble	
Sodium Formate S Grade	Crystals	68.0	99	Soluble	
Sodium Formate Feed Grade	Crystals	68.0	99	Soluble	
Sodium Sulphate	Crystals	142.0	99	Soluble	
Potassium Formate in water	Liquid	84.1		Soluble	75

Plasticizers

	Appearance	Molecular weight (g/mol)	Ester content min. (%)	Viscosity (mPas, 20°C)
Emoltene™ 100	Liquid	447	99.5	120-130
Emoltene™ 100 IRG	Liquid	447	99.0	120-130
Emoltene™ 100 TOP	Liquid	447	99.0	120-130
Pevalen™ (Pentaerythritol tetravalerate)	Liquid	472	99.0	35

Plasticizers from renewable sources

Pro-Environmental Product	Fossil Equivalent	Renewable carbon content*
Emoltene™ 100 Pro 14	Emoltene™ 100	14%
Emoltene™ 100 IRG Pro 14	Emoltene™ 100	14%
Emoltene™ 100 TOP Pro 14	Emoltene™ 100	14%
Pevalen™ Pro 36	Pevalen™	36%
Pevalen™ Pro 100	Pevalen™	100%

* Based on traceable mass-balance

Safety glass plasticizers

	Appearance	Molecular weight (g/mol)	3G8 content	Acid Value (mg KOH/g)
Emoltene™ 3GO	Liquid	403	Min. 97%	Max. 0.1

Liquid fertilizers

	Appearance	Nutrient content
Amicult™ K42	Liquid	42 wt % K ₂ O

Thermal management fluids

	Appearance	Kinematic viscosity at 40°C (mm ² /s)	Density (kg/m ³)	Specific heat capacity at 20°C (kJ/kg K)	Thermal conductivity at 20°C (W/m K)
Synmerse™ DC	Liquid	16	1018	1.89	0.144

Emulsifiers

	Appearance	Description	Application
Neptem™ 11	Flowable paste	Anionic surfactant	Alkyd emulsifier
Neptem™ 21	Liquid	Polymerically stabilized anionic emulsifier	Alkyd emulsifier
Neptem™ 31	White paste	Non-ionic surfactant	Alkyd emulsifier
Neptem™ 32	White paste	Non-ionic surfactant	Alkyd emulsifier

One molecule can
change everything

Feed grade acids

	Appearance	Application area	Active ingredients
Butyric Acid	Liquid	Feed additive, raw material	Butyric acid
Formic Acid 85%	Liquid	Crop science adjuvant; Preservation and silage	Formic acid
Propionic Acid	Liquid	Crop science adjuvant; Preservation (mold inhibitor) & silage	Propionic acid

Animal nutrition products

	Appearance	Description
ProMyr™ TMR Cool	Powder	Dry preservative for TMR (Total Mixed Rations)
ProMyr™ TMR Flexible	Liquid	Liquid preservative for TMR (Total Mixed Rations)
ProMyr™ TMR Solid	Powder	Dry preservative for TMR (Total Mixed Rations)
ProPhorce™ AC 200	Powder	98% Calcium Formate; Acid salt and a calcium source. Preservative
ProPhorce™ AC 299	Powder	97% Sodium formate; Acid salt and sodium source. Preservative
ProPhorce™ AC 600	Liquid	Buffered non-ADR acid for feed. Based on formic acid and sodium formate
ProPhorce™ Classic NC	Liquid	Combined buffered organic acids for water application
ProPhorce™ Premium NC	Liquid	Combined buffered organic acids plus essential oils for water application
ProPhorce™ Exclusive NC	Liquid	Combined buffered organic acids, essential oils and monobutyryns for water application
ProPhorce™ SA Cleaning	Liquid	Feed hygiene solution to help reduce pathogen load
ProPhorce™ SA Exclusive	Liquid	Advanced feed hygiene solution to help reduce pathogen load
ProPhorce™ SR 130	Powder	Based on glycerol butyric acid esters
ProPhorce™ SR 730	Liquid	Based on glycerol butyric acid esters
ProSid™ MI 201	Powder	Feed preservative suitable for use within compound feeds
ProSid™ MI 208	Powder	99% Calcium Propionate; Preservative
ProSid™ MI 330	Powder	Feed preservative, based on glycerol propionic acid esters
ProSid™ MI 700	Liquid	Non-ADR liquid Feed preservative, based on glycerol propionic acid esters

Food additives

	Appearance	Description
Profina™ CP	Powder	99% Calcium propionate; Preservative



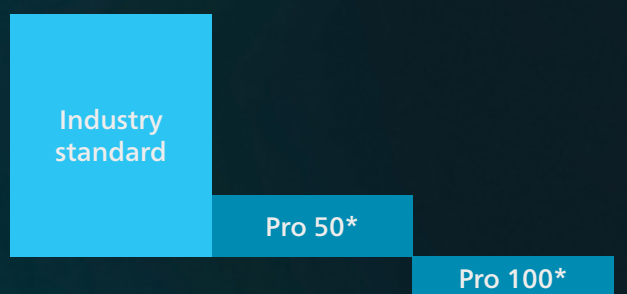


Enabling sustainable solutions everywhere

The chemical industry is present everywhere. In fact, 96 percent of all manufactured goods rely on chemical products. Because of this broad reach across many sectors, the industry has a significant potential to contribute to the sustainability efforts of other companies and value chains. By leveraging our position in the value chain, Perstorp aims to enable the transition towards more sustainable practices, benefiting the environment, companies and people involved.

Perstorp can help you fulfill your greenhouse gas emission reduction targets by offering a wide range of ISCC PLUS certified products with a reduced product carbon footprint. We call them Pro-Environment Solutions.

Pro-Environment Solutions are designed to reduce the carbon footprint throughout the value chain and support sustainable sourcing of renewable and recycled raw materials. Because they are drop-in replacements, they offer an opportunity to reduce Scope 3 emissions without any costly and time-consuming reformulation efforts.



Example of reduction in Product Carbon Footprint (PCF) values with different grades of Pro-Environment products.

*Pro 50/100 products correspond to 50%/100% renewable and/or recycled carbon content based on a traceable mass balance concept.

How?

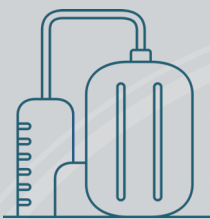
Our guiding star is to become Finite Material Neutral and a part of that ambition means shifting away from virgin fossil raw materials at our production plants globally.

To achieve this, we believe that **Traceable Mass Balance** is an essential and credible methodology to enable the large-scale phasing-out of fossil raw materials with the goal of a fully converted chemical industry.



Readily available solutions

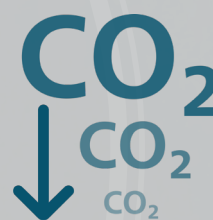
Our expanding portfolio of Pro-Environment Solutions consists of ISCC PLUS certified products which reduce CO₂-emissions and are produced from recycled and/or renewable raw material based on a traceable mass balance concept. The portfolio is continuously growing and today consists of polyols, acids, plasticizers, and more.



Sustainable origins

Pro-Environment products are based, fully or partially, on raw materials whose origins are ISCC PLUS certified renewable/recycled instead of virgin fossil.

Pro-Environment products are designed to reduce emissions throughout the value chain and will contribute to lowering your Product Carbon Footprint and Corporate Carbon Footprint.



Low carbon footprint



Drop-in replacement

Pro-Environment products are chemically identical to their fossil counterparts, offering the same performance without any trade-offs in quality and no reformulation efforts are required.

One molecule can change everything

Perstorp believes in improving everyday life – making it safer, more convenient and more environmentally sound for billions of people all over the world. As a world leading specialty chemicals company, our innovations provide essential properties for products used every day and everywhere. You'll find us all the way from your car and mobile phone to towering wind turbines and the local dairy farm.

Simply put, we work to make good products even better, enabling sustainable solutions everywhere. We do this with a clear commitment to the Paris agreement and the ambition of becoming Finite Material Neutral. Perstorp is pioneering in Pro-Environment solutions with a comprehensive portfolio of ISCC PLUS certified products with a low carbon footprint that are fully or partly renewable, based on a traceable mass balance concept.

Founded in Sweden in 1881, Perstorp's focused innovation builds on more than 140 years of experience, representing a complete chain of solutions in organic chemistry, process technology and application development. Perstorp maintains a top 1 position in the majority of its product portfolio and operates manufacturing units in Asia, Europe and North America. Perstorp is a wholly-owned subsidiary of PETRONAS Chemicals Group Berhad (PCG), Malaysia's leading integrated chemicals provider and part of PETRONAS Group. Together, we share a passion for progress and will unlock new opportunities for sustainable transformation. [perstorp.com](https://www.perstorp.com)