CRODA | Pharma

SMART SCIENCE TO IMPROVE LIVES™



SUPER REFINED™ pharmaceutical excipients

Looking to enhance the bioavailability, delivery and efficacy of your dosage form? With Croda's highly purified functional excipients, you can optimise the stability of your API and the overall performance of your pharmaceutical formulations. Our catalogue contains a range of products that are compliant with Ph. Eur., USP/NF, JP/JPE, and ChP monographs when they are available, plus we frequently perform additional testing to further control excipient quality.

Croda's ongoing commitment to high quality standards and investment in R&T ensures the continual delivery of exceptional high-purity ingredients and the development of new speciality products to answer the current and future needs of the pharmaceutical industry.

Croda's Super Refined range:

- Oils and esters
- Polysorbates
- Poloxamers
- PEGs
- Lanolins
- Propylene glycol
- Ethoxylated fatty alcohols

Super Refined excipients

The high level of purity afforded by Croda's proprietary Super Refining process helps to maintain the chemical profile of your Active Pharmaceutical Ingredient (API), reducing the chance of oxidation and thereby helping to extend its shelf life. Super Refining removes oxidative and other impurities from a vast range of excipients while retaining the fundamental structure and function and without affecting the monograph compliance.

Super Refined oils and esters

Our Super Refined triglyceride oils and esters offer the highest and most consistent quality, often exceeding pharmacopoeia specifications. They also have excellent organoleptic properties, as they are essentially colourless, odourless and tasteless.

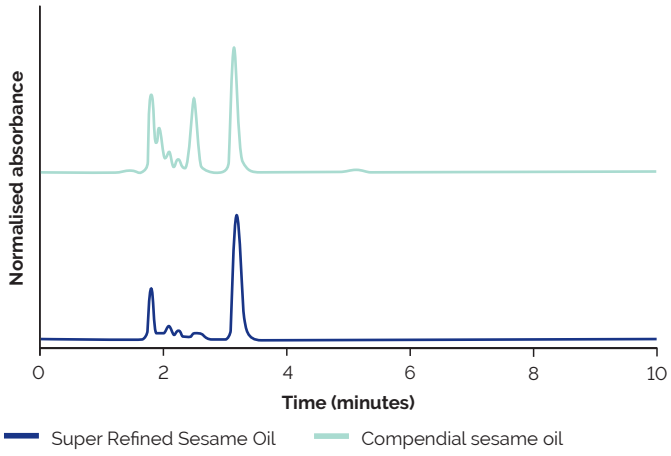


Figure 1: Chromatogram of haloperidol decanoate in sesame oil after 12 weeks at 40˚C

The stability of haloperidol decanoate in Super Refined Sesame Oil and standard compendial grade equivalents was investigated, to determine the effect of excipient purity on API degradation. In Super Refined Sesame Oil more than 93% haloperidol decanoate recovery was obtained after incubation at 40˚C for 12 weeks. In contrast, the recovery rate in standard compendial excipients varied between 68% and 79%, showing enhanced stability of the API in Super Refined Sesame Oil in comparison with standard compendial grade alternatives. These results demonstrate that the purity levels provided by the Super Refined product offers the formulator improved API stability and consequently improved performance.

Super Refined PEGs

PEGs are some of the most commonly used excipients and are exceptionally good solubilisers for APIs. However, the impurities found in standard PEGs present a number of challenges when formulating with oxidatively unstable APIs. The presence of these impurities can accelerate the degradation of the API as well as destabilising emulsions, causing skin and cellular irritation and promoting gelatin crosslinking in both soft gelatin and hard gelatin capsules.

Optimise the stability of your API with Croda's range of Super Refined excipients

Throughout our Super Refined range, we eliminate many of the impurities that are normally present in pharmaceutical grade polyethylene glycols, such as moisture, residual catalyst, peroxides and aldehydes.

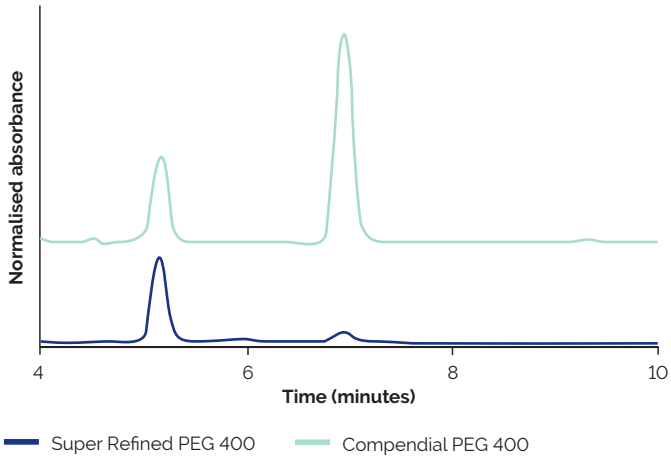


Figure 2: Chromatogram of fulvestrant in PEG 400 after 12 weeks at 40˚C

In both Super Refined and standard compendial grade PEGs there is a reduction in recovery of fulvestrant after 12 weeks at 40˚C. This is accompanied by the presence of an additional peak in the chromatogram (Figure 2). Fulvestrant elutes at a retention time of 5.1 minutes. An additional peak elutes at a retention time of 6.9 minutes. Even though this peak appears in both grades of PEG 400, the height is considerably lower in the Super Refined PEG 400. This demonstrates the substantially increased stability of the API in Super Refined PEG 400. The removal of impurities helps to reduce API interaction, maintaining the stability of both the drug and the finished formulation.

API stability is enhanced in Super Refined excipients compared to standard compendial grade products

Super Refined Polysorbates

Another frequently used group of excipients are polysorbates, which are hydrophilic, non-ionic surfactants widely used as emulsifying agents in the preparation of stable oil-in-water pharmaceutical emulsions. They are also excellent solubilisers, stabilisers, wetting and dispersing agents. However, like many other standard pharmaceutical grade excipients they contain impurities that cause formulation challenges, especially when working with oxidatively unstable APIs. To resolve these issues Croda provides a range of Super Refined polysorbates.

The data presented in Figure 3 shows docetaxel recovery in polysorbate 80 over a 12-week period at 40˚C. In Super Refined Polysorbate 80, the recovery rate after 12 weeks was greater than 90%. In contrast, the recovery of docetaxel in polysorbate 80 from three other sources dropped to between 20% and 60% after 4 weeks and between 10% and 50% after 12 weeks.

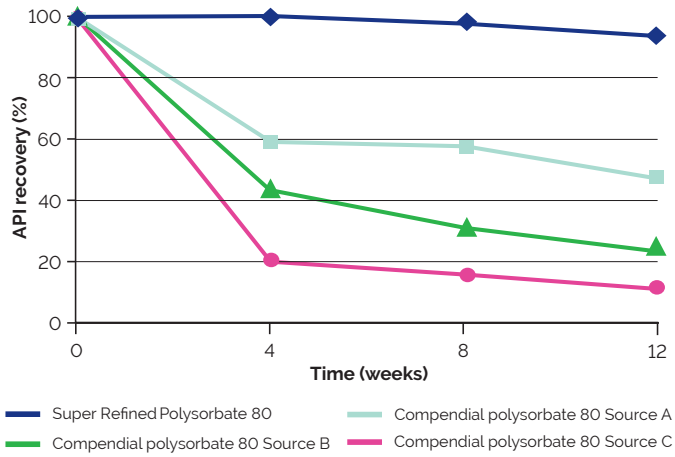


Figure 3: % docetaxel recovery in polysorbate 80 at 40°C

Super Refined Poloxamer 188

Super Refined Poloxamer 188 is added to mammalian cell culture media to protect cells from shear stress caused by agitation in a bioreactor. Super Refined Poloxamer 188 has been optimised specifically for mammalian cell culture with tightly controlled impurity profiles and molecular weight, ensuring optimal cell culture performance and batch-to-batch consistency. As a product belonging to our Super Refined range, Super Refined Poloxamer 188 meets excellent purity standards, undergoes rigorous quality testing, is offered in enhanced packaging, and is also suitable for use as a injectable grade excipient in formulations.

Super Refined Propylene Glycol

Propylene glycol can be used in a range of pharmaceutical applications as a solvent, stabilising agent, water-miscible co-solvent, humectant, plasticiser and anti-microbial preservative. Propylene glycol can oxidise into various acids and aldehydes. To remove impurities which can accelerate the excipient's oxidation Croda processes the excipient via its proprietary Super Refining technology. This provides propylene glycol of the increased purity, specifically for formulations containing sensitive active ingredients, where purity is paramount.

Our high purity Lanolins

Emollients soothe, smooth and hydrate the skin offering therapeutic value in the treatment of a number of dermatological disorders. With an evolutionary advantage over other topical emollients, Medilan™ is uniquely engineered to imitate the natural lipids of the skin. By replenishing these essential lipids, Medilan is able to accelerate the repair of the skin's natural barrier function.

Croda's Medilan range includes three lanolin products processed via Croda's Super Refining technology: Medilan Ultra, Medilan Super and Liquid Medilan Ultra. These products offer exceptional purity, producing low odour and colour materials. These pure products deliver outstanding efficacy in dermatological applications, as well as proven safety in use.

Super Refined Brij O2

This highly purified Oleth-2 is a co-emulsifier that is ideal for use in topical and auricular applications. Super Refined Brij O2 is a polyoxyethylene vegetable-based fatty ether derived from oleyl alcohol. This non-ionic surfactant can contribute the spreading and stabilising properties to emulsions. It can be utilised as a high purity solubiliser or dispersant or in emulsifier systems where a low HLB value is required.

EXCiPACT™

Croda is committed to delivering quality and assurance to our customers. To support this, Croda was the first supplier to achieve global EXCiPACT accreditation across production facilities.

EXCi™ PACT TRUST CERTIFIED.

Product name	Chemical description	HLB	Monograph[‡]				FDA IID Listed[‡‡]	Physical form	Administration route									Product description
			Ph. Eur.	USP/NF	JP/JPE	ChP			Topical	Transdermal	Oral	Injectable	Ophthalmic	Auricular	Nasal	Vaginal	Rectal	
Cithrol™ GMO HP	Glyceryl Oleate; Glycerol Mono-oleates	3.0	■	■			■	Off-white solid	■	■	■							High purity oleic acid grade with a GMO content of 92% minimum. Offers controlled drug release and enhances active bioavailability. W/O emulsifier and O/W emulsion stabiliser.
Crodasol™ HS HP	Polyoxyl 15 Hydroxystearate (PEG-15 Hydroxystearate)	15.0	■	■			■	White to pale yellow waxy solid	■		■						■	This unique and high purity surfactant forms spherical micelles even at highly concentrated levels, resulting in a linear relationship between its increasing concentration and its solubilising capacity for a number of different APIs. Ideally suited to oral and suppository dosage systems.
Liquid Medilan™ Ultra	Liquid Lanolin	n/a		■			■	Colourless liquid	■									Super Refined to produce a highly purified liquid lanolin, Liquid Medilan Ultra has been clinically proven to reduce the signs and symptoms of very dry, cracked skin. Offers excellent aesthetics properties as an emollient and excipient in creams, lotions and ointments.
Medilan Super	Modified Lanolin	n/a		■			■	Off-white soft mass, m.p. 38-44°C	■				■			■	■	Highly purified medical grade product with excellent aesthetics. This Super Refined product is suited to compromised skin conditions such as eczema and psoriasis.
Medilan Ultra	Modified Lanolin	n/a		■			■	White soft mass, m.p. 38-44°C	■				■			■	■	Super Refined to produce a highly purified, medical grade lanolin, Medilan Ultra has been proven to possess barrier repair and wound healing properties. Its exceptional aesthetic properties and low drag make it particularly suitable for dermatological applications. Clinically proven for treating severely compromised skin.
Pharmalan™	Lanolin	n/a	■	■				Yellow soft mass m.p. 38-44°C	■									Purified grade of anhydrous lanolin manufactured to GMP standards, suitable for topical pharmaceuticals and baby care. Recommended topical usage levels of 1-10%, although can be used neat on skin.
Span™ 20 HP	Sorbitan Monolaurate; Sorbitan Laurate	8.6	■	■	■	■	■	Pale yellow liquid	■		■		■			■		Co-emulsifier in O/W emulsions, often used with Tween 20 HP. Used in inhalers, ophthalmic, oral, topical and vaginal reparations. Soluble in many fatty compositions and solvents. Dispersible in water, dilute acids and alkalis. Recommended topical usage levels of 0.5-5%.
Span 80 HP	Sorbitan Monooleate; Sorbitan Oleate	4.3	■	■			■	Amber liquid	■		■						■	A high purity version of Span 80 tested against both Ph. Eur. and USP monographs. This HP grade offers lower moisture levels as well as lower peroxide and acid values.
Super Refined Beeswax	Beeswax; White Beeswax	n/a	■	■	■	■	■	White flakes m.p. 60-67°C	■		■							Highly purified beeswax used in sustained release oral dosage forms and to increase viscosity of creams and ointments. Modifies melting point of suppository bases.
Super Refined Benzyl Alcohol	Benzyl Alcohol	12.9	■	■	■		■	Liquid	■		■	■	■	■	■	■	■	Super Refined Benzyl Alcohol is a high purity aromatic alcohol suitable for use as a preservative, solvent, and viscosity reducing agent. Boasting benefits such as very low benzaldehyde and peroxide levels, Super Refined Benzyl Alcohol meets the requirements for injectable use. This extremely low impurity profile also allows for other benefits, such as enhanced stability under room temperature conditions, improved stability for an incorporated API (Active Pharmaceutical Ingredient), and a high level of analytical clarity. From the drug stability standpoint, this means not only improved overall drug recovery, but also minimizing potential formation of problematic by-products which could compromise drug and product integrity. In addition to being suitable for injectable applications, Super Refined Benzyl Alcohol is multi-compendial, adhering to the USP/NF, Ph. Eur., and JP monographs.
Super Refined Brij™ O2	Polyoxyethylene (2) Oleyl Ether	4.9					■	Clear pale light yellow liquid	■					■				Super Refined Brij O2 is a highly purified, naturally derived alcohol ethoxylate. It can be utilised as a solubiliser or in emulsifier systems where a low HLB value is required. It has ideal applications in products such as atopic dermatitis oils and scalp application products.
Super Refined Castor Oil	Castor Oil	14.0*	■	■	■	■	■	Clear, essentially colourless liquid	■		■	■	■					Highly purified triglyceride of fatty acids composed of ricinoleic acid, oleic acid, linoleic acid, palmitic acid and stearic acid. It is commonly used in topical creams and ointments as well as in oral tablet and capsule formulations. May also be used in ophthalmic emulsions and as a solvent for intramuscular injections.
Super Refined CCMG 400	Caprylocaproyl Macrogolglycerides	n/a					■	Liquid			■							Super Refined CCMG 400 is a multi-compendial, high purity mixture of caprylocaproyl polyoxylglycerides. This product has undergone intense purification, by which impurities and other reactive species that could negatively impact API and formulation stability have been removed.
Super Refined Corn Oil	Corn Oil; Maize Oil, Refined	7.9*	■	■			■	Clear, essentially colourless liquid			■	■						Highly purified corn-derived triglyceride that is primarily used in pharmaceutical formulations as a solvent and/or vehicle for intramuscular injections. It is also commonly used in oral dosage forms in tablets, capsules and suspensions.
Super Refined Cottonseed	Cottonseed Oil	7.9*		■			■	Clear, essentially colourless liquid			■	■						Highly purified cottonseed-derived triglyceride that can be used as a solvent and vehicle for injectables, as an emollient vehicle for other medications and orally as a mild cathartic. Due to its fatty acid composition it can be used in intravenous emulsions as a fat source in parenteral nutrition applications. It can also be used in oral capsule dosage forms.
Super Refined DEGEE	Diethylene Glycol Monoethyl Ether	n/a	■	■				Liquid	■	■	■		■	■	■	■	■	Super Refined DEGEE is ideal for use in topical and transdermal applications to enhance the permeation of poorly water-soluble API's through various layers of the skin, thereby improving drug delivery. It can also be used as a co-solvent in self-emulsifying drug delivery systems (SEDDS), or self-microemulsifying drug delivery systems (SMEDDS), to stabilise poorly water-soluble API's in oral formulations, which can lead to an improvement in the delivery and bioavailability of the SEDDS or SMEDDS system.
Super Refined DMI	Dimethyl Isosorbide	n/a		■			■	Clear, essentially colourless liquid	■									A highly purified dimethyl isosorbide ideal for use with poorly soluble hydrophilic and hydrophobic actives. It can enhance topical formulation performance and API stability and can be used in transdermal delivery systems.
Super Refined DMI-P	Dimethyl Isosorbide	n/a		■				Clear, essentially colourless liquid	■									Super Refined DMI-P is a highly purified solubiliser, epidermal penetration enhancer and spreading agent. Applications include topical anti-inflammatory drug delivery, scalp treatments and anti-acne treatments.
Super Refined GTCC	Caprylic/Capric Triglyceride; Medium Chain Fatty Acid Triglyceride	10.0*	■	■	■	■	■	Colourless liquid	■		■	■	■					Solubiliser and carrier for oil soluble actives. Nutritional source of lipids for medicinal foods. Good emollient with excellent oxidative stability. Filler in capsules and tablets. Lubricant for gelatin capsules and tablets. Vehicle for anti-parasitic pour-ons. Proven in parenteral applications although not listed for this purpose in the FDA guide. Recommended topical usage levels of 0.5-20%.

* Required HLB

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‡‡ See FDA IID sheets for FDA-verified administration routes.

When ordering a product, please specify which of the indicated monograph(s) are required, as for many products we offer multiple grades to suit your compliancy requirements.

Product name	Chemical description	HLB	Monograph[‡]				FDA IID Listed[‡‡]	Physical form	Administration route								Product description
			Ph. Eur.	USP/NF	JP/JPE	ChP			Topical	Transdermal	Oral	Injectable	Ophthalmic	Auricular	Nasal	Vaginal	Rectal	
Super Refined Hexyl Laurate	Hexyl Laurate	8.0*			■			Colourless to pale yellow liquid	■									This is a multifunctional emollient oil with light texture. Its low viscosity results in excellent spreading properties, rapid absorbency and low residual tack on the skin. It was reported to be used in topical applications where the excipient exhibited very high permeability. Due to its low polarity, HL is an excellent solubiliser for poorly soluble substances.
Super Refined IPM	Isopropyl Myristate	10.0*	■	■	■	■	■	Colourless liquid	■	■				■		■		Highly purified version of isopropyl myristate that is a readily absorbed emollient for topical formulations. It can enhance penetration of transdermal formulations and is commonly used as a solvent for many topically applied substances.
Super Refined IPP	Isopropyl Palmitate	10.0*		■	■	■	■	Colourless liquid	■	■	■							An easy-spreading, non-occlusive dry emollient. Recommended topical usage levels of 0.5-5%.
Super Refined Isostearic Acid	Isostearic Acid	n/a			■		■	Yellow liquid	■									Super Refined Isostearic Acid is a vegetable-derived liquid fatty acid that offers a light lubricious skin feel, preventing a dry afterfeel from topical products. It promotes low viscosity for good spreading and acts as a cleansing agent, emollient and superfatting agent and is compatible with cold processing. Recommended topical usage levels: 0.5-5%
Super Refined Lauryl Lactate	Lauryl Lactate	14.0*					■	Colourless, transparent liquid	■	■								Highly purified version of Lauryl Lactate with excellent emollient properties. It is water soluble and can be used to impart non-oily lubricity to a formulation, or to reduce the tackiness of other components of topical products. Typical usage levels of 1.0-15.0%.
Super Refined Myristyl Myristate	Myristyl Myristate	8.0*			■			White solid	■									Highly purified version of Crodamol MM. Provides a dry emollient feel and improves emulsion texture and stability.
Super Refined Oleyl Alcohol	Oleyl Alcohol	n/a	■	■			■	Clear, essentially colourless liquid	■									Highly purified lipid-based solubiliser that is mainly used in topical formulations and is ideal for transdermal delivery formulations due to its skin penetration enhancing properties. It can also be used for wetting and dispersing actives within topical creams and ointment applications.
Super Refined Oleyl Oleate	Oleyl Oleate	7.0*		■	■			Colourless to pale yellow liquid	■									Highly purified grade of pharmaceutical oleyl oleate. A plant-derived light and non-greasy emollient
Super Refined Oleic Acid	Oleic Acid; Purified Oleic Acid	n/a	■	■	■	■	■	Clear, essentially colourless liquid	■		■				■			Highly purified oleic acid used as a co-emulsifier in topical pharmaceutical formulations. Ideal for nasal drug delivery and as a penetration enhancer in transdermal formulations. In addition, it can be used to improve the bioavailability of poorly water soluble drugs in tablet formulations and as part of a vehicle in soft gel-caps.
Super Refined Olive Oil	Olive Oil	7.7*			■		■	Clear, essentially colourless liquid	■		■							Highly purified olive-derived triglyceride that can be used topically as an emollient and lubricant.
Super Refined P35 Castor Oil	Polyoxyl 35 Castor Oil	13.0	■	■	■		■	Liquid	■		■	■	■			■	■	Super Refined P35 Castor Oil is a castor oil derivative, resulting from the reaction of glycerol ricinoleate and 35 mols of ethylene oxide. This product is a liquid nonionic solubiliser and emulsifier, characteristic of a slightly yellow hue, and is intended for use in parenteral, ophthalmic, oral, and topical applications.
Super Refined Peanut Oil	Peanut Oil; Arachis Oil, Refined	7.8*	■	■			■	Clear, essentially colourless liquid	■		■	■				■		Highly purified peanut-derived triglyceride that is suitable for use as an excipient in pharmaceutical formulations, as a solvent for sustained-release intramuscular injections and as a vehicle for topical preparations, nasal drug delivery systems and controlled release injectables. In addition, it can be used in emulsions for nutritional applications. The purification process of Super Refining significantly reduces the levels of total nitrogen content, a value associated with the levels of protein residue within an excipient. The level of residual protein can be an indicator of the potential for anaphylaxis.
Super Refined PEG 300	Polyethylene Glycol 300; Macrogols; Macrogol 300	n/a	■	■	■		■	Colourless viscous liquid	■		■	■	■					Super Refined PEGs are solvents for use with the most sensitive active ingredients across dosage forms including injectable and oral. Super Refining removes polar impurities (including primary and secondary oxidation products) from an excipient without altering its chemical composition, reducing excipient-API interaction and subsequent API degradation. The benefits of Super Refined PEGs over standard pharmaceutical PEGs include: 1) better API stability and finished formulation integrity, 2) reduced potential for cellular irritation, 3) improved taste profile when used in oral liquid dosage forms, and 4) reduced crosslinking in gelatin capsules. Please see product datasheets for more detailed information.
Super Refined PEG 400	Polyethylene Glycol 400; Macrogols; Macrogol 400	n/a	■	■	■		■	Colourless viscous liquid	■		■	■	■		■	■	■	
Super Refined PEG 400 LTG	Polyethylene Glycol 400 Low Triethylene Glycol	n/a	■	■	■	■	■	Colourless viscous liquid	■		■	■	■		■	■	■	
Super Refined PEG 600	Polyethylene Glycol 600; Macrogols; Macrogol 600	n/a	■	■	■		■	Colourless viscous liquid	■		■	■						
Super Refined Petrolatum	Petrolatum; White Petrolatum; Paraffin, White Soft; White Vaseline	n/a	■	■	■	■	■	Semi-solid	■		■		■			■	■	Super Refined Petrolatum is a high-purity high performance white petrolatum. By removing polar impurities including primary and secondary oxidation products by using the Super Refining process, Super Refined Petrolatum can improve formulation stability and reduce potential for skin irritation.
Super Refined PGML	Propylene Glycol Monolaurate	4.5	■	■			■	Clear to slightly pale-yellow liquid	■	■	■							Super Refined PGML is a high purity mixture of propylene glycol and esters of lauric (C12) acid. More specifically, as part of the Type II classification, it has at least a 90% concentration of monoesters, with the remaining percentage being diesters. In addition to being a low HLB emulsifier, it also has emolliency, humectancy, and skin penetration properties. Super Refined PGML also has a very low impurity profile, which ultimately improves its shelf life over competitor products. This includes reductions in problematic impurities like aldehydes, acids, and free polyethylene glycol. This also lends itself well as a product that can be used for formulating highly sensitive and poorly water soluble drugs into self emulsifying drug delivery systems (SEDDS).
Super Refined Poloxamer 188	Poloxamer 188	29.0	■	■	■		■	Free-flowing granular white powder	■		■	■	■					Super Refined Poloxamer 188 is added to mammalian cell culture media to protect cells from shear stress caused by agitation in a bioreactor. It is used as a stabliser in injectable formulations or as an emulsifer/dispersant in oral and topical formulations.

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			Ph. Eur.	USP/NF	JP/JPE	ChP			Topical	Transdermal	Oral	Injectable	Ophthalmic	Auricular	Nasal	Vaginal	Rectal	
Super Refined Polysorbate 20	Polysorbate 20	16.7	■	■	■	■	■	Clear, essentially colourless liquid	■		■	■	■	■	■	■		The highest purity grade of polysorbate 20 ideal for use when formulating with extremely sensitive APIs. This highly purified grade effectively removes impurities to maximise API stability and performance by minimising API interaction with the excipient. It can be used in multiple dosage forms primarily as a solubiliser, solvent, emulsion stabiliser and wetting agent. In addition, this Super Refined grade has reduced cellular irritation potential over standard pharmaceutical grades thus minimising the irritation potential at the application site.
Super Refined Polysorbate 60	Polysorbate 60	14.9	■	■	■		■	Clear, essentially colourless liquid	■		■		■			■	■	The highest purity grade of polysorbate 60 ideal for use when formulating with extremely sensitive APIs. This highly purified grade effectively removes impurities to maximise API stability and performance by minimising API interaction with the excipient. It can be used as an emulsifying agent, solubilising agent and wetting agent for topical, oral, ophthalmic, vaginal and rectal dosage forms. In addition, this Super Refined grade has reduced cellular irritation potential over standard pharmaceutical grades thus minimising the irritation potential at the application site.
Super Refined Polysorbate 80	Polysorbate 80	15.0	■	■	■	■	■	Clear, essentially colourless liquid	■		■	■	■	■	■	■	■	The highest purity grade of polysorbate 80 ideal for use when formulating with extremely sensitive and unstable APIs. This highly purified grade effectively removes impurities to maximise API stability and performance by minimising API interaction with the excipient. In addition, the Super Refined grade provides excellent analytical clarity; an advantage over other pharmaceutical grades of polysorbate 80. It also provides reduced cellular irritation over standard pharmaceutical grades thus minimising the irritation potential at the application site. It has multiple functions for a wide array of dosage forms.
Super Refined Polysorbate 80 POA	Polysorbate 80	15.0	■	■	■	■	■	Clear, essentially colourless liquid	■		■	■	■					Super Refined Polysorbate 80 POA is a highly purified polysorbate 80 that has been created with >98% oleic acid fatty acid distribution. This highly purified, multi-compendial grade has been Super Refined allowing for further purification above the monograph specifications. This provides the potential for improved product and API stability and, ultimately, extended drug shelf life.
Super Refined Propylene Glycol	Propylene Glycol	n/a	■	■	■		■	Clear liquid	■		■	■	■	■	■	■	■	Highly purified grade of propylene glycol suitable for use in a range of pharmaceutical applications as a solvent, stabilising agent, water-miscible co-solvent, humectant, plasticiser and anti-microbial preservative. The proprietary Super Refining process provides propylene glycol of the highest purity, specifically for formulations containing sensitive active ingredients where the upmost purity is paramount.
Super Refined Safflower Oil	Safflower Oil	7.7*		■			■	Clear, essentially colourless liquid	■									Highly purified safflower-derived triglyceride that is rich in the essential fatty acid linoleic acid. This odourless, light and quickly absorbed oil is widely used as an emollient in dermatological applications
Super Refined Sesame Oil	Sesame Oil; Sesame Oil, Refined	7.8*	■	■	■	■	■	Clear, essentially colourless liquid			■	■						Highly purified sesame-derived triglyceride that finds use as a solvent in the preparation of sustained-release intramuscular/subcutaneous injections of oil soluble actives such as steroids and avermectins. It can also be used as an excipient in suspensions, emulsions, ointments, self-microemulsifying drug delivery systems, oral capsules and fast-disintegrating dry emulsion tablets.
Super Refined Soybean Oil	Soybean Oil; Soya-bean Oil	7.7*	■	■	■		■	Clear, essentially colourless liquid	■		■	■						Highly purified soy-derived triglyceride that can be used as a fat source in parenteral nutritional applications. It can be used as a vehicle for oral and intravenous drug administration and as an emollient in topical preparations. This highly purified oil can also be used in the formulation of many drug delivery systems including self-emulsifying systems.
Tween™ 20 HP	Polysorbate 20	16.7	■	■	■	■	■	Clear yellow liquid	■		■	■	■	■	■	■		High purity grade of polysorbate 20 with lower moisture and peroxide levels compared to the standard pharmaceutical grade, making it ideal for use when additional excipient purity is required. This nonionic surfactant is widely used as an emulsifying agent, solubilising agent and wetting agent for oral and parenteral suspensions.
Tween 60 HP	Polysorbate 60	14.9	■	■			■	Yellow liquid/soft solid	■		■		■			■	■	High purity grade of polysorbate 60 with lower moisture and peroxide levels compared to the standard pharmaceutical grade, making it ideal for use when additional excipient purity is required. This nonionic surfactant is widely used as an emulsifying agent, solubilising agent and wetting agent for topical, oral, ophthalmic, vaginal and rectal dosage forms.
Tween 80 HP	Polysorbate 80	15.0	■	■	■	■	■	Clear yellow liquid	■		■	■	■	■	■	■	■	High purity grade of polysorbate 80 with lower moisture and peroxide levels compared to the standard pharmaceutical grade, making it ideal for use when additional excipient purity is required. This nonionic surfactant is widely used as an emulsifying agent, solubilising agent, vehicle and wetting agent for a number of dosage forms. It can be used in auricular, nasal and ophthalmic solutions, suspensions and emulsions. In addition, it can be used in various injectable, oral and topical applications as well as vaginal and rectal solutions, emulsions and suppositories.

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NOTES

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CRODA | Pharma

SMART SCIENCE TO IMPROVE LIVES™

MORE THAN JUST YOUR INGREDIENTS PROVIDER

Free samples and expert formulation support

Partner with Croda Pharma to develop your next-generation formulations with confidence.

Croda Pharma also offers custom excipient development, tailored to your specific formulation requirements.

Contact us to request a sample or speak with one of our experts to learn how Croda Pharma can support your formulation goals.

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