



Complete Coverage

of all 4 fat-soluble vitamins
in Cholestatic Liver Disease
via enhanced absorption with
TPGS (tocofersolan)

CLINICALLY
TESTED DELIVERY
TECHNOLOGY



DEKAs Essential liquid



DEKAs Aqua-E liquid

Unique Highly Absorbable
Combination of Vitamins
D₃, E, K₁ & A Formulated
with TPGS (tocofersolan)

Highly Absorbable Water-
Based Vitamin E Supplement
Formulated with TPGS
(tocofersolan)

IMPORTANT NOTICE

DEKAs* is a Food for Special Medical Purposes, for the dietary management of patients with Cholestatic Liver Disease or Cystic Fibrosis. Use only under medical supervision. Please read product information on the inside.

Choose Best in Class. Choose **DEKAs**

DEKAs is a registered trademark of Callion Pharma.

UK

FR

DE

ES

PT

RU

عربي

DEKAs nutritional information

Product		 DEKAs Essential liquid		 DEKAs Aqua-E liquid
One bottle contains		60 ml		60 ml
		0,5 ml	1 ml	1 ml
Vitamin D ₃	IU (µg)	1000 (25)	2000 (50)	
Vitamin E as TPGS ¹	IU (mg)	37,5 (25)	75 (50)	75 (50)
Vitamin K ₁	mg	1	2	
Vitamin A	IU (µg RE) ³	1250 (375)	2500 (750)	
as β-carotene ²	IU (µg RE) ³	833 (250)	1666 (500)	
as retinyl palmitate	IU (µg RE) ³	417 (125)	834 (250)	

1. TPGS is D-alpha-Tocopheryl Polyethylene Glycol-1000 Succinate
2. β-carotene is a precursor to vitamin A and is converted by the body to vitamin A as needed.
3. RE = all trans retinol equivalent.

Vitamin	Dose recommendations for cholestatic liver disease ¹	
D ₃	0-3 years	1200 - 4000 IU
	over 3 years	1800 - 6000 IU
E	As TPGS 15-25 IU/kg per day	
K ₁	1 - 5 mg per day	
A	5000 - 10000 IU/day if co-administered with TPGS	

1. Feranchak, A., Suchy, F., & Sokol, R. (2014). Medical and nutritional management of cholestasis in infants and children. In F. Suchy, R. Sokol, & W. Balistreri (eds.), *Liver Disease in Children* (pp.111-139). Cambridge University Press.

1. TPGS is D-alpha-Tocopheryl Polyethylene Glycol-1000 Succinate
2. Sokol RJ, et al, Tocopheryl polyethylene glycol 1000 succinate therapy for vitamin E deficiency during chronic childhood cholestasis: Neurologic outcome. *J. Pediatr.*, 1987;111:830-836
3. Sokol RJ, et al, Multicenter Trial of d-α-Tocopheryl Polyethylene Glycol 1000 Succinate for Treatment of Vitamin E Deficiency in Children with Chronic Cholestasis. *Gastroenterology* 1993;104:1727-1735;1987; 93(5):975-85.
4. Argao EA, et al, d-Alpha-tocopheryl polyethylene glycol-1000 succinate enhances the absorption of vitamin D in chronic cholestatic liver disease of infancy and childhood. *Pediatr Res*, 1992; 31(2):146-5
5. Feranchak AP, et al. Comparison of indices of vitamin A status in children with chronic liver disease. *Hepatology*. 2005 Oct;42(4):782-92.

Choose **Best** in Class. Choose **DEKAs**

Why choose DEKAs?

Feature of DEKAs	Benefit
Uses TPGS ¹ (tocofersolan) as the only source of vitamin E	Enhanced absorption of vitamin E, with improved neurological outcomes in cholestasis. ^{2,3}
Unique combination of TPGS ¹ with vitamins A, D ₃ and K ₁	TPGS in DEKAs micellizes the oily vitamins into a water-based liquid that easily mixes with most beverages.
Contains the right ratio of TPGS ¹ and vitamin A and D ₃	Clinical studies show that the TPGS as used in DEKAs makes vitamin D and A more absorbable in cholestatic conditions. ^{4,5}
Vitamin A mostly as β -carotene	Avoids hypervitaminosis A as the body converts β -carotene into retinol as needed (self-titration).
Neutral or pleasant berry taste	Chance of better adherence. Unnoticeable mixing with other beverages.
Avoids deep intramuscular vitamin injections	Reduced burden of treatment and risk of anaphylaxis.
Moderate cost	The cost for DEKAs compares favourably with intramuscular injections or Vedrop.
Formulated with advice from clinical experts	The vitamin quantities in DEKAs are adapted to real-life clinical experience. They allow for scaled dosing based on patient need (see figure on the left and table below).

UK

Find the **right dose** of vitamins D, E, K & A with **DEKAs Essential** liquid in a **stepwise** approach...



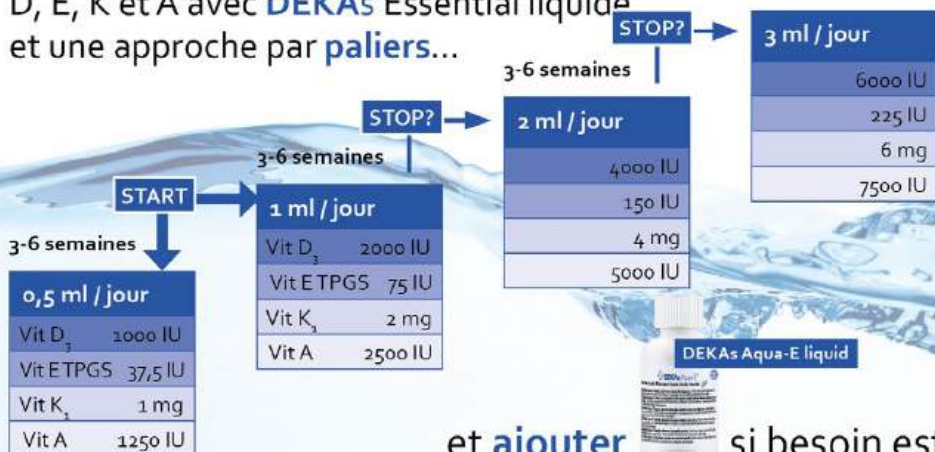
Choose **Best in Class**. Choose **DEKAs**

Pourquoi choisir DEKAs?

FR

Caractéristique de DEKAs	Avantages
Contient du TPGS ² (tocofersolan) comme unique source de vitamine E	Absorption améliorée de la vitamine E, avec amélioration des symptômes neurologiques en cas de cholestase. ^{2,3}
Formule unique de TPGS ² avec vitamines A, D ₃ et K ₁	Le TPGS forme des micelles avec les autres vitamines lipophiles, les rendant hydrosolubles et facilement mélangeables avec la plupart des boissons.
Contient le bon ratio de TPGS ² et de vitamines A et D ₃	Des études cliniques montrent dans les maladies cholestatiques du foie que le TPGS utilisé dans les spécialités DEKAs rend les vitamines D et A plus absorbables. ^{4,5}
Vitamine A principalement sous forme de β-carotène	Prévient l'hypervitaminose A car le β-carotène est métabolisé en rétinol seulement en fonction des besoins (auto-titration).
Goût neutre ou agréable de baies	Possibilité d'une meilleure adhérence. Mélange inaperçu avec d'autres boissons.
Évite les injections intramusculaires profondes de vitamines	Réduction du fardeau du traitement et du risque d'anaphylaxie associé.
Coût modéré	Le coût de DEKAs est favorable par rapport à celui des injections intramusculaires ou du Vedrop.
Formulé avec les conseils d'experts cliniques	Les quantités de vitamines contenues dans DEKAs sont adaptées à l'expérience clinique en vie réelle. Elles permettent un dosage par paliers en fonction des besoins du patient (voir la figure ci-dessous).

Trouver la **bonne dose** de vitamines D, E, K et A avec **DEKAs Essential liquide** et une approche par **paliers**...



et **ajouter** si besoin est...

Choisir **délibérément**. C'est choisir **DEKAs**

Warum DEKAs wählen?

Merkmale von DEKAs	Vorteile
Nutzt TPGS ¹ (Tocofersolan) als einzige Vitamin E-Quelle	Erhöhte Absorption von Vitamin E mit verbesserten neurologischen Ergebnissen bei der Cholestase. ^{2,3}
Einzigartige Kombination von TPGS ¹ und den Vitaminen A, D ₃ und K ₂	TPGS in DEKAs bringt die fettlöslichen Vitamine durch Mizellen in eine wässrige Lösung, die sich leicht mit den meisten Getränken mischen lässt.
Verfügt über das richtige Verhältnis von TPGS ¹ und Vitamin A und D ₃	Klinische Studien belegen, dass durch das in DEKAs verwendete TPGS die Vitamine D und A bei Colestase besser resorbiert werden. ^{4,5}
Vitamin A überwiegend als β -Carotin	Beugt einer Hypervitaminose mit Vitamin A vor, da der Körper β -Carotin nur bei Bedarf in Retinol umwandelt (Selbsttitration).
Neutraler oder angenehmer Beerengeschmack	Möglicherweise bessere Adhärenz. Gute Mischbarkeit mit anderen Getränken.
Keine Notwendigkeit für intramuskuläre Vitamin-Injektionen	Verringerte Belastung durch die Behandlung und kein Risiko einer Anaphylaxie.
Moderater Preis	DEKAs ist günstiger als intramuskuläre Injektionen oder Vedrop.
Formulierung auf Anraten klinischer Experten	Die Vitaminmengen in DEKAs sind an Erfahrungen aus der klinischen Praxis angepasst. Sie machen eine den Patientenbedürfnissen entsprechende aufsteigende Dosierung möglich (siehe Abbildung unten).

DE

Finden Sie die **optimale Dosis** der Vitamine D, E, K und A mit **DEKAs Essential Liquid** mit einem **stufenweisen** Erhöhung der Dosierung



Wählen Sie **bewusst**. Wählen Sie **DEKAs**

¿Por qué elegir DEKAs?

Características de DEKAs	Beneficio
Utiliza TPGS ¹ (tocofersolán) como única fuente de vitamina E	Mayor absorción de vitamina E, mejorando los resultados neurológicos en la colestasis. ^{3,3}
Combinación única de TPGS ¹ con vitaminas A, D ₃ y K ₁	El TPGS en DEKAs miceliza las vitaminas liposolubles, haciéndolas solubles en agua, lo que facilita su mezcla con la mayoría de las bebidas.
Contiene la proporción adecuada de TPGS ² y vitamina A y D ₃	Estudios clínicos muestran que TPGS tal como usado en DEKAs facilita la absorción de vitamina D y A en la colestasis. ^{4,5}
Vitamina A principalmente como β-caroteno	Evita la hipervitaminosis A: el cuerpo transforma el β-caroteno en retinol según lo vaya necesitando (autotitulación).
Sabor neutro o agradable a frutos del bosque	Posibilidad de una mejor adherencia. Imperceptible al mezclarlo con otras bebidas.
No requiere inyecciones intramusculares de vitaminas	Reducción de la carga de tratamiento y el riesgo de anafilaxia.
Precio razonable	El coste de DEKAs es favorable frente al de las inyecciones intramusculares o el Vedrop.
Fórmula elaborada con la ayuda de expertos clínicos	Las cantidades de vitaminas en DEKAs se han ajustado a la experiencia clínica real. Permiten una dosificación escalonada en función de las necesidades del paciente (véase la figura de abajo).

ES

Encuentra la **dosificación adecuada** de vitaminas D, E, K y A con **DEKAs Essential Liquido** usando una dosificación **escalonada**...



y **añade** si es necesario...

Elija el **mejor** de su clase. Elija **DEKAs**

Porque escolher o DEKAs?

Características dos DEKAs	Vantagem
Usa TPGS ² (tocoferolano) como a única fonte de vitamina E	Absorção potenciada de vitamina E, com resultados neurológicos melhorados em colestase. ^{2,3}
Combinação única de TPGS ² com vitaminas A, D ₃ e K ₁	O TPGS no DEKAs miceliza as vitaminas lipossolúveis, tornando-as solúveis em água, e misturando facilmente com a maioria das bebidas.
Contém o rácio certo de TPGS ² e vitamina A e D ₃	Estudos clínicos demonstram que o TPGS, conforme é usado no DEKAs, torna a vitamina D e A mais absorvível em colestase. ^{4,5}
Vitamina A maioritariamente como β-caroteno	Evita hipervitaminose A, pois o organismo converte β-caroteno em retinol conforme for necessário (auto-titulação).
Sabor neutro ou agradável a amora	Possibilidade de melhor aderência. Mistura imperceptível com outras bebidas.
Evita injeções intramusculares profundas de vitaminas	Carga reduzida de tratamento e risco de anafilaxia.
Custo moderado	O custo do DEKAs é competitivo, em comparação com o custo de injeções intramusculares ou Vedrop.
Formulado com aconselhamento de especialistas clínicos	As quantidades de vitamina no DEKAs estão adaptadas à experiência clínica da vida real. Permitem uma dosagem escalada baseada nas necessidades dos pacientes (ver figura abaixo).

PT

Encontre a **dose certa** de vitaminas D, E, K e A com **DEKAs** Essencial líquido usando uma dosagem **escalonada**...



e **acrescente** se precisar...

Escolha o **Melhor** da sua Classe. Escolha **DEKAs**

Почему DEKAs?

Характеристика DEKAs	Преимущество
TPGS ² (токоферсолан) как единственный источник витамина E	Улучшенное всасывание витамина E с лучшими неврологическими результатами при холестазах. ^{2,3}
Уникальное сочетание TPGS ² и витаминов A, D ₃ и K ₁	TPGS в DEKAs мицеллизует жирорастворимые витамины в жидкости на основе воды, которая легко смешивается с большинством напитков.
Содержит правильную пропорцию TPGS ² и витаминов A и D ₃	Клинические испытания показали, что TPGS, используемый в DEKAs, улучшает всасываемость витаминов D и A при связанных с холестазами нарушениях. ^{4,5}
Витамин A в основном как бета-каротин	Не допускает гипервитаминоза A, так как организм превращает бета-каротин в ретинол по мере необходимости (самотитрация).
Нейтральный или приятный ягодный вкус	Возможность лучшего соблюдения режима приема препарата. Не чувствуется при смешивании с напитками.
Нет необходимости в глубоких внутримышечных инъекциях витаминов	Снижение затрат на процедуры и риска анафилактики.
Умеренная цена	Цена на DEKAs ниже цены внутримышечных инъекций Vedrop.
Формула разработана по рекомендациям клинических экспертов	Количество витаминов в DEKAs адаптировано к реальному клиническому опыту. Это позволяет осуществлять ступенчатое дозирование в зависимости от потребностей пациента (см. таблицы слева и внизу).

RU

Найдите **правильную дозу** витаминов D, E, K и A с жидким **DEKAs Essential** и **ступенчатым** методом...



и **добавьте** при необходимости

Выбирайте **лучшее**. Выбирайте **DEKAs**

لماذا تختار DEKAs؟

مميزات DEKAs	المفائدة
استعمال ¹ TPGS (توكوفيرسولان) كمصدر وحيد للفيتامين ه	امتصاص مُعزَّز للفيتامين ه، تحسُّن في الحصائل العصبية في حالات الركود الصفراوي. ^{2,3}
مزيج فريد من مركبات ¹ TPGS يحتوي على الفيتامينات أ و د3 و ك1	تقوم مركبات ¹ TPGS في DEKAs بتفقيت الفيتامينات الزيتية إلى سائل مائي الأساس يسهل مع معظم المشروبات.
يحتوي على النسبة الصحيحة من ¹ TPGS والفيتامينين أ و د3	أظهرت الدراسات السريرية أن مركبات ¹ TPGS المستخدمة في DEKAs تزيد من قابلية امتصاص الفيتامين د و أ في ظروف الركود الصفراوي. ^{4,5}
فيتامين أ غالبيته في شكل بيتا كاروتين	يُجنَّب المريض فرط الفيتامين أ لأن الجسم يُحوِّل البيتا كاروتين إلى ريتينول بالقدر المطلوب (المعايرة الذاتية).
نكهة محايدة أو نكهة توت لطيفة	يحسُّن من أمثال المريض. لا يُلاحظ عند مزجه بالمشروبات الأخرى.
يُقي عن الحقن العميق للفيتامين في العضل	يُحد من عبء العلاج ومخاطر الإعوار/التأق.
تكلفة مُعتدلة	سعر DEKAs أفضل من سعر الحقن في العضل أو Vedrop.
أعدت تركيبته بناء على نصائح الخبراء المُعالجين	يتم تكيف كمية الفيتامينات في DEKAs وفقاً للتجارب السريرية الواقعية. يسمح بالترجُّح في الجرعة بناء على حاجة المريض (انظر الشكل المعروض على اليسار والجدول أدناه).

اعثر على الجرعة الصحيحة من الفيتامينات د، ه، ك، أ مع محلول DEKAs Essential بنهج مُندرج...



اختر أفضل صنف في هذه الفئة. اختر DEKAs.

Nutritional information				
contains 60 ml		0,5 ml	1 ml	100 ml
Energy	kJ / kcal	4 / 1	8 / 2	800 / 200
Fat of which:	g	0,04	0,07	7,2
saturates	g	0	0	0
Carbohydrates of which:	g	0,07	0,13	13
Sugars	g	0	0	0
Protein	g	0	0	0
Salt	g / mmol	0	0 / 0	0 / 0
Vitamin A as retinyl palmitate	µg RE* (IU)	125 (417)	250 (833)	25000 (83333)
Vitamin A as beta-carotene	µg RE* (IU)	250 (833)	500 (1666)	50010 (166666)
Vitamin D3	µg (IU)	25 (1000)	50 (2000)	5000 (200000)
Vitamin E	mg (IU)	25 (38)	50 (75)	5034 (7500)
Vitamin K	µg	1000	2000	200000

* RE = all trans retinol equivalent

Product information: DEKAs Essential liquid, food for special medical purposes. For the dietary management of patients with cholestatic liver disease. DEKAs Essential liquid is a multivitamin supplement that contains higher amounts of fat-soluble vitamins. DEKAs Essential liquid utilizes a clinically tested delivery technology to enhance absorption of fat-soluble vitamins and nutrients. **Important notice:** Use only under medical supervision. Unless medically advised, do not administer to children under 4 years of age. For enteral use only. Cannot be used as a sole source of nutrition. The product poses a health hazard if consumed by persons who do not have the disease(s), disorder(s) or medical conditions for which the product is intended. Use in patients with significant renal insufficiency, taking oral vitamin K antagonists, or during pregnancy, only after consultation with a doctor. Do not use in newborn preterm infants. **Use and storage:** Do not use if the seal is broken or missing. Keep out of reach of children. Store at room temperature. Refrigerate after opening. Use within 60 days of opening. **Recommended dosage:** 0,5 - 1 ml daily or as directed by physician. Dosing should be guided by serum vitamin levels. Take with meals. Shake well before use. **Allergens:** none.

Ingredients: water, D-alpha-tocopheryl polyethylene glycol-1000 succinate (TPGS), beta-carotene, acidulant (ascorbic acid), cholecalciferol, phytomenadione, natural and artificial flavors, preservatives (potassium sorbate, sodium benzoate), retinyl palmitate, antioxidant (tocopherol-rich extract), sweetener (sucralose).

Distribution



Alveolus Biomedical B.V.,
 Platolaan 71, 3707 GD Zeist, NL.
www.dekasvitamins.com

Manufactured in the USA for



232 Presidential Drive, Suite 7
 Jonesborough, TN 37659 USA
www.callionpharma.com

Nutritional information			
contains 60 ml		1 ml	100 ml
Energy	kJ / kcal	4,9 / 1,2	490 / 120
Fat of which:	g	0,07	7,2
saturates	g	0	0
Carbohydrates of which:	g	0,13	13
Sugars	g	0	0
Protein	g	0	0
Salt	g	0	0
Vitamin E	mg (IU)	50 (75)	5000 (7500)

Product information: DEKAs Aqua-E liquid, food for special medical purposes. For the dietary management of patients with cholestatic liver disease. DEKAs Aqua-E is a unique, patented, water-soluble vitamin E formulation. Clinical testing has shown that the formulation of DEKAs Aqua-E increases the absorption of vitamin E in patients with malabsorption, such as patients with cholestatic liver disease. **Important notice:** Use only under medical supervision. Unless medically advised, do not administer to children under 4 years of age. For enteral use only. Cannot be used as a sole source of nutrition. The product poses a health hazard if consumed by persons who do not have the disease(s), disorder(s) or medical conditions for which the product is intended. Use in patients with significant renal insufficiency, vitamin K deficiency or taking oral vitamin K antagonists, or during pregnancy, only after consultation with a doctor. Do not use in newborn preterm infants. **Use and storage:** Shake well before each use. Take directly or mix it with a beverage. Do not use if the seal is broken or missing. Keep out of reach of children. Store at room temperature. Refrigerate after opening. Use within 60 days of opening. **Recommended dosage:** 1 ml (50 mg/75 IU of vitamin E) per 3 kg of body weight per day or as directed by a physician. Dosing should be guided by serum vitamin levels. **Allergens:** none.

Ingredients: water, D-alpha-tocopheryl polyethylene glycol-1000 succinate (TPGS), acidulant (citric acid), preservatives (potassium sorbate, sodium benzoate), linoleic acid.

Distribution



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DEKAs availability

Webshop

Visit www.DEKAsvitamins.com. Available in English, German, French or Spanish. The shop ships to over 22 countries. Prices from €1,03 – €1,25 per ml depending on dose, product, country and quantity ordered.

Benelux

Available via wholesalers and pharmacies. For the Benelux please contact: Roberto Jongejan MD, Head of EU rjongejan@dekasvitamins.com
☎ +31 6 21255794

France

Available via pharmacies. For information and orders please contact: commandes-DEKAs@portail-pharma.com
☎ 09 72 40 89 11 ☎ 0806 110 434

Germany and Austria

In Austria DEKAs is available via wholesalers and pharmacies. For Germany please contact: Dirk Krause MD, Country Manager dkrause@dekasvitamins.com
☎ 0174 4440440

Italy

Will be available via wholesalers and pharmacies. For Italy please contact: PIAM Farmaceutici S.P.A., Genova info@piamfarmaceutici.com
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