LACTOLUXIN

IDEA2EXPERT CO., LTD.

Issue Date: **09/05/2022**
Print Date: **10/05/2022**
Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878) S.REACH.FRA.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier

Product name	LACTOLUXIN
Chemical formula	Not Applicable
Other means of identification	Not Available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For Skincare products
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Registered company name	**IDEA2EXPERT CO., LTD.**
Address	99/209 Soi Chaengwattana 12, YAK 4-7-4-1, Thung-Song-Hong, Laksi Bangkok 10210 Thailand
Telephone	02-1678611
Fax	Not Available
Website	www.herbistha.com
Email	Idea2expert@gmail.com

1.4. Emergency telephone number

Association / Organisation	**Mr. PINIT KHUEANSUWONG**	
Emergency telephone numbers	**061-5505599**	
Other emergency telephone numbers	**Not Available**	

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	H315 - Skin Corrosion/Irritation Category 2, H317 - Sensitisation (Skin) Category 1, H318 - Serious Eye Damage/Eye Irritation Category 1

2.2. Label elements

Hazard pictogram(s)	
Signal word	**Danger**

Hazard statement(s)

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H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

Precautionary statement(s) Prevention

P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician/first aider.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

2.3. Other hazards

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

Not Applicable

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
1.9004-95-9 2.500-014-1 3.Not Available 4.01-2120770779-34-XXXX	10-15	cetyl ether ethoxylated	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1; H315, H318 [1]	Not Available	Not Available
1.8039-09-6 2.Not Available 3.Not Available 4.Not Available	3-9	lanolin, ethoxylated	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1; H315, H318 [1]	Not Available	Not Available
1.57-55-6 2.200-338-0 3.Not Available 4.01-2119456809-23-XXXX|01-2119987460-31-XXXX	3-9	propylene glycol	Acute Toxicity (Oral) Category 5, Acute Toxicity (Inhalation) Category 5, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2; H303, H333, H315, H319 [1]	Not Available	Not Available
1.84625-40-1 2.283-415-1 3.Not Available 4.01-2120764382-53-XXXX	3-9	fenugreek oil	Sensitisation (Skin) Category 1; H317 [1]	Not Available	Not Available
1.1338-43-8 2.215-665-4 3.Not Available 4.Not Available	1-7	sorbitan monooleate	Not Applicable	Not Available	Not Available
1.7695-91-2 2.231-710-0 3.Not Available 4.01-2119457641-38-XXXX	1-7	DL-alpha-tocopherol acetate	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 3; H315, H319, H412 [1]	Not Available	Not Available
1.57-88-5 2.200-353-2 3.Not Available 4.01-2119976283-30-XXXX	1-7	cholesterol	Not Applicable	Not Available	Not Available
1.92128-87-5 2.295-786-7 3.Not Available 4.Not Available	1-7	lecithins, hydrogenated	Not Applicable	Not Available	Not Available

Continued...

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
1.1117-86-8 2.214-254-7 3.Not Available 4.01-2119966905-22-XXXX|01-2120769969-24-XXXX	0.5-1.5	1,2-octanediol	Not Applicable	Not Available	Not Available
1.1335-12-2 2.215-621-4 3.Not Available 4.Not Available	0.5-1.5	phenyl-1-propanol	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3; H302, H315, H319, H335 [1]	Not Available	Not Available
1.26183-52-8 2.500-046-6 3.Not Available 4.Not Available	0.5-1.5	decanol, ethoxylated	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H302, H315, H318, H411 [1]	Not Available	Not Available
1.25322-68-3 2.500-038-2 3.Not Available 4.01-2119958801-32-XXXX	0.5-1.5	polyethylene glycol	Not Applicable	Not Available	Not Available
1.61788-85-0 2.500-147-5 3.Not Available 4.01-2120775815-41-XXXX	0.5-1.5	castor oil, hydrogenated, ethoxylated	Not Applicable	Not Available	Not Available
1.9065-63-8 2.205-592-6|259-910-3|500-003-1 3.603-183-00-0 4.01-2119475107-38-XXXX|01-2119453620-46-XXXX|01-2119492302-43-XXXX	0.5-1.5	butyl alcohol propoxylated	Serious Eye Damage/Eye Irritation Category 1; H318 [2]	Eye Dam.1; H318: C ≥ 30 % | Eye Irrit. 2; H319: 20 % ≤ C < 30 %	Not Available
1.2163-42-0 2.412-350-5 3.Not Available 4.01-0000015964-61-XXXX	0.2-1.2	2-methyl-1,3-propanediol	Not Applicable	Not Available	Not Available
1.56-81-5 2.200-289-5 3.Not Available 4.01-2119471987-18-XXXX	0.2-1.2	glycerol	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3; H315, H319, H335 [1]	Not Available	Not Available
1.107-41-5 2.203-489-0 3.603-053-00-3 4.01-2119539582-35-XXXX	0.2-1.2	hexylene glycol	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2; H315, H319 [2]	Not Available	Not Available
1.125275-25-4 2.433-120-0 3.Not Available 4.Not Available	0.2-1.2	polyquaternium-51	Not Applicable	Not Available	Not Available
1.9067-32-7 2.Not Available 3.Not Available 4.Not Available	0.2-1.2	hyaluronic acid sodium salt	Not Applicable	Not Available	Not Available
1.28874-51-3 2.249-277-1 3.Not Available 4.01-2119986878-07-XXXX|01-2120763560-56-XXXX	0.2-1.2	sodium pyroglutamate	Not Applicable	Not Available	Not Available
1.99-20-7 2.202-739-6 3.Not Available 4.Not Available	0.2-1.2	trehalose	Not Applicable	Not Available	Not Available
1.102-76-1 2.203-051-9 3.Not Available 4.01-2119484873-24-XXXX	0.2-1.2	glyceryl triacetate	Serious Eye Damage/Eye Irritation Category 2; H319 [1]	Not Available	Not Available
1.57-13-6 2.200-315-5 3.Not Available 4.01-2119463277-33-XXXX	0.2-1.2	urea	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3; H315, H319, H335 [1]	Not Available	Not Available
1.7732-18-5 2.231-791-2 3.Not Available 4.Not Available	10.2-72.2	water	Not Applicable	Not Available	Not Available

Legend:	*1. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 2. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties*

SECTION 4 First aid measures

Continued...

4.1. Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Immediately hold eyelids apart and flush the eye continuously with running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▸ Transport to hospital or doctor without delay. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ If swallowed do **NOT** induce vomiting. ▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▸ Observe the patient carefully. ▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▸ Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
To treat poisoning by the higher aliphatic alcohols (up to C7):

- Gastric lavage with copious amounts of water.
- It may be beneficial to instill 60 ml of mineral oil into the stomach.
- Oxygen and artificial respiration as needed.
- Electrolyte balance: it may be useful to start 500 ml. M/6 sodium bicarbonate intravenously but maintain a cautious and conservative attitude toward electrolyte replacement unless shock or severe acidosis threatens.
- To protect the liver, maintain carbohydrate intake by intravenous infusions of glucose.
- Haemodialysis if coma is deep and persistent. [GOSSELIN, SMITH HODGE: Clinical Toxicology of Commercial Products, Ed 5)

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- Monitor and treat, where necessary, for shock.
- Monitor and treat, where necessary, for pulmonary oedema.
- Anticipate and treat, where necessary, for seizures.
- **DO NOT** use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.
- Give activated charcoal.

ADVANCED TREATMENT

- Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- If the patient is hypoglycaemic (decreased or loss of consciousness, tachycardia, pallor, dilated pupils, diaphoresis and/or dextrose strip or glucometer readings below 50 mg), give 50% dextrose.
- Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- Treat seizures with diazepam.
- Proparacaine hydrochloride should be used to assist eye irrigation.

EMERGENCY DEPARTMENT

- Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
- Acidosis may respond to hyperventilation and bicarbonate therapy.
- Haemodialysis might be considered in patients with severe intoxication.
- Consult a toxicologist as necessary. BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

For C8 alcohols and above.
Symptomatic and supportive therapy is advised in managing patients.

SECTION 5 Firefighting measures

5.1. Extinguishing media

Continued...

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.
Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.
In such an event consider:

- foam.
- dry chemical powder.
- carbon dioxide.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

5.3. Advice for firefighters

Fire Fighting	▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire. ▸ Prevent, by any means available, spillage from entering drains or water courses. ▸ Use fire fighting procedures suitable for surrounding area. ▸ **DO NOT** approach containers suspected to be hot. ▸ Cool fire exposed containers with water spray from a protected location. ▸ If safe to do so, remove containers from path of fire. ▸ Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	The emulsion is not combustible under normal conditions. However, it will break down under fire conditions and the hydrocarbon component will burn. Decomposition may produce toxic fumes of: carbon dioxide (CO_2) nitrogen oxides (NOx) phosphorus oxides (POx) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles. ▸ Trowel up/scrape up. ▸ Place spilled material in clean, dry, sealed container. ▸ Flush spill area with water. ▸ Clean up all spills immediately. ▸ Avoid breathing vapours and contact with skin and eyes. ▸ Control personal contact with the substance, by using protective equipment. ▸ Contain and absorb spill with sand, earth, inert material or vermiculite. ▸ Wipe up. ▸ Place in a suitable, labelled container for waste disposal.
Major Spills	▸ Clear area of personnel and move upwind. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves. ▸ Prevent, by any means available, spillage from entering drains or water course. ▸ Stop leak if safe to do so. ▸ Contain spill with sand, earth or vermiculite. ▸ Collect recoverable product into labelled containers for recycling. ▸ Neutralise/decontaminate residue (see Section 13 for specific agent). ▸ Collect solid residues and seal in labelled drums for disposal. ▸ Wash area and prevent runoff into drains.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	▸ Overheating of ethoxylates/ alkoxylates in air should be avoided. When some ethoxylates are heated vigorously in the presence of air or oxygen, at temperatures exceeding 160 C, they may undergo exothermic oxidative degeneration resulting in self-heating and autoignition. ▸ Nitrogen blanketing will minimise the potential for ethoxylate oxidation. Prolonged storage in the presence of air or oxygen may cause product degradation. Oxidation is not expected when stored under a nitrogen atmosphere. Inert gas blanket and breathing system needed to maintain color stability. Use dry inert gas having at least -40 C dew point. ▸ Trace quantities of ethylene oxide may be present in the material. Although these may accumulate in the headspace of storage and transport vessels, concentrations are not expected to exceed levels which might produce a flammability or worker exposure hazard. ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area.

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	▸ Prevent concentration in hollows and sumps. ▸ **DO NOT** enter confined spaces until atmosphere has been checked. ▸ **DO NOT** allow material to contact humans, exposed food or food utensils. ▸ Avoid contact with incompatible materials. ▸ When handling, **DO NOT** eat, drink or smoke. ▸ Keep containers securely sealed when not in use. ▸ Avoid physical damage to containers.
Fire and explosion protection	See section 5
Other information	Consider storage under inert gas. Ethoxylates/ alkoxylates react slowly with air or oxygen and may generate potentially sensitising intermediates (haptens).. Storage under heated conditions in the presence of air or oxygen increases reaction rate. For example, after storing at 95 F/ 35 C for 30 days in the presence of air, there is measurable oxidation of the ethoxylate. Lower temperatures will allow for longer storage time and higher temperatures will shorten the storage time if stored under an air or oxygen atmosphere. ▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area. ▸ Store away from incompatible materials and foodstuff containers. ▸ Protect containers against physical damage and check regularly for leaks. ▸ Observe manufacturer's storage and handling recommendations contained within this SDS.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	▸ Polyethylene or polypropylene container. ▸ Packing as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	The substance may be or contains a "metalloid" The following elements are considered to be metalloids; boron,silicon, germanium, arsenic, antimony, tellurium and (possibly) polonium The electronegativities and ionisation energies of the metalloids are between those of the metals and nonmetals, so the metalloids exhibit characteristics of both classes. The reactivity of the metalloids depends on the element with which they are reacting. For example, boron acts as a nonmetal when reacting with sodium yet as a metal when reacting with fluorine. Unlike most metals, most metalloids are amphoteric- that is they can act as both an acid and a base. For instance, arsenic forms not only salts such as arsenic halides, by the reaction with certain strong acid, but it also forms arsenites by reactions with strong bases. Most metalloids have a multiplicity of oxidation states or valences. For instance, tellurium has the oxidation states +2, -2, +4, and +6. Metalloids react like non-metals when they react with metals and act like metals when they react with non-metals. ▸ Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water. Secondary amines form salts with strong acids and can be oxidized to the corresponding nitrone using hydrogen peroxide, catalyzed by selenium dioxide ▸ The various oxides of nitrogen and peroxyacids may be dangerously reactive in the presence of alkenes. BRETHERICK L.: Handbook of Reactive Chemical Hazards ▸ Avoid reaction with strong Lewis or mineral acids. ▸ Reaction with halogens requires carefully controlled conditions. ▸ Free radical initiators should be avoided. Alcohols ▸ are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents. ▸ reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen ▸ react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium ▸ should not be heated above 49 deg. C. when in contact with aluminium equipment · Cholesterol may undergo autoxidation and photo-oxidation, both processes give rise to oxysterols of various structures depending on the type of oxidation and the physical state of the substrate. · The identification of cholesterol oxidation products may be used as a mechanistic proof in various oxidant systems. · When cholesterol esters are oxidised, the structure and the yield of the formed oxysterols depend on the fatty acid species. · Cholesterol will oxidize slowly in tissues or foods to form a range of different products with additional hydroperoxy, epoxy, hydroxy or keto groups, and these can enter tissues via the diet.. · When cholesterol is heated at 180 deg C for at least 25 hours, 5-cholesten-3beta,7beta-diol and 5-cholesten-3beta-7alpha-diol are among the oxidation products · The formation of oxidative products produced by irradiation is proportional to exposure time. These include cholestan-3beta, 5alpha, 6beta-triol, 7alpha-hydroxycholesterol, 7beta-hydroxycholesterol, and 7-ketocholesterol-alpha-oxide. Terpenoids and terpenes, are generally unsaturated, are thermolabile, are often volatile and may be easily oxidised or hydrolysed depending on their respective structure. Terpenoids are subject to autoxidation. Autoxidation is any oxidation that occurs in open air or in presence of oxygen (and sometimes UV radiation) and forms peroxides and hydroperoxides. Though autoxidation has been particularly investigated in the field of fatty oils, it also plays a most crucial part for terpenoid deterioration. Although virtually all types of organic materials can undergo air oxidation, certain types are particularly prone to autoxidation, including unsaturated compounds that have allylic or benzylic hydrogen atoms (C6H5CH2-); these materials are converted to hydroperoxides by autoxidation. Promoted by heat, catalytic quantities of redox-reactive metals, and exposure to light, autoxidation may result in the formation of explosive peroxides which may become explosive upon concentration. As a rule, however, primary autoxidation products such as hydroperoxides eventually break down during advanced stages of oxidation depending on their individual stability. Thereby they give rise to a range of stable oxidised secondary products such as mono- to polyvalent alcohols, aldehydes, ketones, epoxides, peroxides, or acids as well as highly viscous, often oxygen-bearing polymers. Light, heat, or increasing acidity often promote this breakdown. Compounds rich in allylic hydrogen atoms (2HC=CHCH2-R), found in most terpenoids, make up the most probable targets for autoxidation. · The interaction of alkenes and alkynes with nitrogen oxides and oxygen may produce explosive addition products; these may form at very low temperatures and explode on heating to higher temperatures (the addition products from 1,3-butadiene and cyclopentadiene form rapidly at -150 C and ignite or explode on warming to -35 to -15 C). These derivatives ("pseudo- nitrosites") were formerly used to characterise terpene hydrocarbons. · Exposure to air must be kept to a minimum so as to limit the build-up of peroxides which will concentrate in bottoms if the product is distilled. The product must not be distilled to dryness if the peroxide concentration is substantially above 10 ppm (as active oxygen) since explosive decomposition may occur. Distillate must be immediately inhibited to prevent peroxide formation. The effectiveness of the antioxidant is limited once the peroxide levels exceed 10 ppm as active oxygen. Addition of more inhibitor at this point is generally ineffective. Prior to distillation it is recommended that the product should be washed with aqueous ferrous ammonium sulfate to destroy peroxides; the washed product should be

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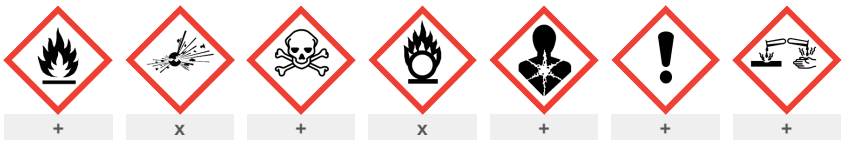
	immediately re-inhibited. · A range of exothermic decomposition energies for double bonds is given as 40-90 kJ/mol. The relationship between energy of decomposition and processing hazards has been the subject of discussion; it is suggested that values of energy released per unit of mass, rather than on a molar basis (J/g) be used in the assessment.



+	x	+	x	+	+	+

X — *Must not be stored together*
0 — *May be stored together with specific preventions*
+ — *May be stored together*

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
cetyl ether ethoxylated	Dermal 2 080 mg/kg bw/day (Systemic, Chronic) Inhalation 294 mg/m³ (Systemic, Chronic) *Dermal 1 250 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 87 mg/m³ (Systemic, Chronic) ** *Oral 25 mg/kg bw/day (Systemic, Chronic) **	0.009 mg/L (Water (Fresh)) 0.001 mg/L (Water - Intermittent release) 0.1 mg/L (Water (Marine)) 94.3 mg/kg sediment dw (Sediment (Fresh Water)) 9.43 mg/kg sediment dw (Sediment (Marine)) 1 mg/kg soil dw (Soil) 10 mg/L (STP)
propylene glycol	Inhalation 168 mg/m³ (Systemic, Chronic) Inhalation 10 mg/m³ (Local, Chronic) *Inhalation 50 mg/m³ (Systemic, Chronic) ** *Inhalation 10 mg/m³ (Local, Chronic) **	260 mg/L (Water (Fresh)) 26 mg/L (Water - Intermittent release) 183 mg/L (Water (Marine)) 572 mg/kg sediment dw (Sediment (Fresh Water)) 57.2 mg/kg sediment dw (Sediment (Marine)) 50 mg/kg soil dw (Soil) 20000 mg/L (STP)
DL-alpha-tocopherol acetate	Dermal 416.6 mg/kg bw/day (Systemic, Chronic) Inhalation 73.5 mg/m³ (Systemic, Chronic) *Dermal 250 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 21.7 mg/m³ (Systemic, Chronic) ** *Oral 12.5 mg/kg bw/day (Systemic, Chronic) **	0.27 mg/L (Water (Fresh)) 0.027 mg/L (Water - Intermittent release) 0.27 mg/L (Water (Marine)) 212000 mg/kg sediment dw (Sediment (Fresh Water)) 21200 mg/kg sediment dw (Sediment (Marine)) 74800 mg/kg soil dw (Soil) 100 mg/L (STP)
cholesterol	Dermal 18 mg/kg bw/day (Systemic, Chronic) Inhalation 132 mg/m³ (Systemic, Chronic) *Dermal 10.7 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 39 mg/m³ (Systemic, Chronic) ** *Oral 10.7 mg/kg bw/day (Systemic, Chronic) **	Not Available
lecithins, hydrogenated	Dermal 3.05 mg/kg bw/day (Systemic, Chronic) Inhalation 10.6 mg/m³ (Systemic, Chronic) *Dermal 1.52 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 2.67 mg/m³ (Systemic, Chronic) ** *Oral 1.52 mg/kg bw/day (Systemic, Chronic) **	0.1 mg/L (Water (Fresh)) 10 µg/L (Water - Intermittent release) 1 mg/L (Water (Marine))
1,2-octanediol	Dermal 1.5 mg/kg bw/day (Systemic, Chronic) Inhalation 10.6 mg/m³ (Systemic, Chronic) *Dermal 0.75 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 2.6 mg/m³ (Systemic, Chronic) ** *Oral 0.75 mg/kg bw/day (Systemic, Chronic) **	0.002 mg/L (Water (Fresh)) 0 mg/L (Water - Intermittent release) 0.022 mg/L (Water (Marine)) 0.031 mg/kg sediment dw (Sediment (Fresh Water)) 0.003 mg/kg sediment dw (Sediment (Marine)) 0.003 mg/kg soil dw (Soil) 10 mg/L (STP)
decanol, ethoxylated	Dermal 2 080 mg/kg bw/day (Systemic, Chronic) Inhalation 294 mg/m³ (Systemic, Chronic) *Dermal 1 250 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 87 mg/m³ (Systemic, Chronic) ** *Oral 25 mg/kg bw/day (Systemic, Chronic) **	0.292 mg/L (Water (Fresh)) 0.029 mg/L (Water - Intermittent release) 0.004 mg/L (Water (Marine)) 31.92 mg/kg sediment dw (Sediment (Fresh Water)) 3.19 mg/kg sediment dw (Sediment (Marine)) 1 mg/kg soil dw (Soil) 1.4 mg/L (STP)
polyethylene glycol	Dermal 112 mg/kg bw/day (Systemic, Chronic) Inhalation 40.2 mg/m³ (Systemic, Chronic) *Dermal 40 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 7.14 mg/m³ (Systemic, Chronic) ** *Oral 40 mg/kg bw/day (Systemic, Chronic) **	0.273 g/L (Water (Fresh)) 27.3 mg/L (Water - Intermittent release) 1 mg/L (Water (Marine)) 1030 mg/kg sediment dw (Sediment (Fresh Water)) 103 mg/kg sediment dw (Sediment (Marine)) 46.4 mg/kg soil dw (Soil)
castor oil, hydrogenated, ethoxylated	Dermal 16.6 mg/kg bw/day (Systemic, Chronic) *Dermal 8.3 mg/kg bw/day (Systemic, Chronic) **	1 µg/L (Water (Fresh)) 0.1 µg/L (Water - Intermittent release) 10 µg/L (Water (Marine)) 100 mg/kg sediment dw (Sediment (Fresh Water))

Continued...

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
		10 mg/kg sediment dw (Sediment (Marine)) 20 mg/kg soil dw (Soil)
butyl alcohol propoxylated	Dermal 0.83 mg/kg bw/day (Systemic, Chronic) Inhalation 2.9 mg/m³ (Systemic, Chronic) Dermal 5.65 mg/cm² (Local, Chronic) Inhalation 30.5 mg/m³ (Local, Chronic) Dermal 400 mg/kg bw/day (Systemic, Acute) Inhalation 96 mg/m³ (Systemic, Acute) Dermal 8.35 mg/cm² (Local, Acute) Inhalation 96 mg/m³ (Local, Acute) *Dermal 0.42 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 12 mg/m³ (Systemic, Chronic) ** *Oral 0.42 mg/kg bw/day (Systemic, Chronic) ** *Dermal 2.823 mg/cm² (Local, Chronic) ** *Inhalation 15.252 mg/m³ (Local, Chronic) ** *Dermal 200 mg/kg bw/day (Systemic, Acute) ** *Inhalation 48 mg/m³ (Systemic, Acute) ** *Oral 2.5 mg/kg bw/day (Systemic, Acute) ** *Dermal 4.173 mg/cm² (Local, Acute) ** *Inhalation 48 mg/m³ (Local, Acute) **	0.333 mg/L (Water (Fresh)) 0.033 mg/L (Water - Intermittent release) 3.33 mg/L (Water (Marine)) 2.59 mg/kg sediment dw (Sediment (Fresh Water)) 0.259 mg/kg sediment dw (Sediment (Marine)) 0.188 mg/kg soil dw (Soil) 100 mg/L (STP) 111 mg/kg food (Oral)
2-methyl-1,3-propanediol	Not Available	40 µg/kg soil dw (Soil)
glycerol	Inhalation 220 mg/m³ (Local, Chronic) *Inhalation 132 mg/m³ (Local, Chronic) **	0.885 mg/L (Water (Fresh)) 0.088 mg/L (Water - Intermittent release) 8.85 mg/L (Water (Marine)) 3.3 mg/kg sediment dw (Sediment (Fresh Water)) 0.33 mg/kg sediment dw (Sediment (Marine)) 0.141 mg/kg soil dw (Soil) 1000 mg/L (STP)
hexylene glycol	Dermal 42 mg/kg bw/day (Systemic, Chronic) Inhalation 44.4 mg/m³ (Systemic, Chronic) Inhalation 49 mg/m³ (Local, Chronic) Inhalation 98 mg/m³ (Local, Acute) *Dermal 15 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 7.8 mg/m³ (Systemic, Chronic) ** *Oral 1.5 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 25 mg/m³ (Local, Chronic) ** *Inhalation 49 mg/m³ (Local, Acute) **	0.429 mg/L (Water (Fresh)) 0.043 mg/L (Water - Intermittent release) 4.29 mg/L (Water (Marine)) 1.59 mg/kg sediment dw (Sediment (Fresh Water)) 0.159 mg/kg sediment dw (Sediment (Marine)) 0.066 mg/kg soil dw (Soil) 20 mg/L (STP)
sodium pyroglutamate	Dermal 2 000 mg/kg bw/day (Systemic, Chronic) Inhalation 141 mg/m³ (Systemic, Chronic) *Dermal 1 000 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 35 mg/m³ (Systemic, Chronic) ** *Oral 10 mg/kg bw/day (Systemic, Chronic) **	0.1 mg/L (Water (Fresh)) 0.01 mg/L (Water - Intermittent release) 1 mg/L (Water (Marine)) 0.37 mg/kg sediment dw (Sediment (Fresh Water)) 0.037 mg/kg sediment dw (Sediment (Marine)) 0.015 mg/kg soil dw (Soil) 10 mg/L (STP)
glyceryl triacetate	Dermal 5 mg/kg bw/day (Systemic, Chronic) Inhalation 35.275 mg/m³ (Systemic, Chronic) *Dermal 2.5 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 8.7 mg/m³ (Systemic, Chronic) ** *Oral 2.5 mg/kg bw/day (Systemic, Chronic) **	1.88 mg/L (Water (Fresh)) 0.188 mg/L (Water - Intermittent release) 1 mg/L (Water (Marine)) 4.73 mg/kg sediment dw (Sediment (Fresh Water)) 0.47 mg/kg sediment dw (Sediment (Marine)) 0.57 mg/kg soil dw (Soil) 1088 mg/L (STP) 0.07 g/kg food (Oral)
urea	Dermal 580 mg/kg bw/day (Systemic, Chronic) Inhalation 292 mg/m³ (Systemic, Chronic) Dermal 580 mg/kg bw/day (Systemic, Acute) Inhalation 292 mg/m³ (Systemic, Acute) *Dermal 580 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 125 mg/m³ (Systemic, Chronic) ** *Oral 42 mg/kg bw/day (Systemic, Chronic) ** *Dermal 580 mg/kg bw/day (Systemic, Acute) ** *Inhalation 125 mg/m³ (Systemic, Acute) ** *Oral 42 mg/kg bw/day (Systemic, Acute) **	0.047 mg/L (Water (Fresh)) 0.047 mg/L (Water - Intermittent release)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
France Threshold Limit Values for Occupational Exposure - VLE/VME	cholesterol	Poussières réputées sans effet spécifique	10, 5 a mg/m3	Not Available	Not Available	Not Available
France Threshold Limit Values for Occupational Exposure - VLE/VME	glycerol	Glycérine (aérosols de)	10 mg/m3	Not Available	Not Available	Not Available
France Threshold Limit Values for Occupational Exposure - VLE/VME	hexylene glycol	Hexylèneglycol	Not Available	125 mg/m3 / 25 ppm	Not Available	Not Available

Emergency Limits

Continued...

Ingredient	TEEL-1	TEEL-2	TEEL-3
propylene glycol	30 mg/m3	1,300 mg/m3	7,900 mg/m3
polyethylene glycol	30 mg/m3	1,300 mg/m3	7,700 mg/m3
butyl alcohol propoxylated	27 mg/m3	300 mg/m3	1,800 mg/m3
glycerol	45 mg/m3	180 mg/m3	1,100 mg/m3
hexylene glycol	2.3 ppm	25 ppm	150 ppm
glyceryl triacetate	19 mg/m3	210 mg/m3	1,200 mg/m3
urea	30 mg/m3	280 mg/m3	1,700 mg/m3

Ingredient	Original IDLH	Revised IDLH
cetyl ether ethoxylated	Not Available	Not Available
lanolin, ethoxylated	Not Available	Not Available
propylene glycol	Not Available	Not Available
fenugreek oil	Not Available	Not Available
sorbitan monooleate	Not Available	Not Available
DL-alpha-tocopherol acetate	Not Available	Not Available
cholesterol	Not Available	Not Available
lecithins, hydrogenated	Not Available	Not Available
1,2-octanediol	Not Available	Not Available
phenyl-1-propanol	Not Available	Not Available
decanol, ethoxylated	Not Available	Not Available
polyethylene glycol	Not Available	Not Available
castor oil, hydrogenated, ethoxylated	Not Available	Not Available
butyl alcohol propoxylated	Not Available	Not Available
2-methyl-1,3-propanediol	Not Available	Not Available
glycerol	Not Available	Not Available
hexylene glycol	Not Available	Not Available
polyquaternium-51	Not Available	Not Available
hyaluronic acid sodium salt	Not Available	Not Available
sodium pyroglutamate	Not Available	Not Available
trehalose	Not Available	Not Available
glyceryl triacetate	Not Available	Not Available
urea	Not Available	Not Available
water	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
cetyl ether ethoxylated	E	≤ 0.01 mg/m³
lanolin, ethoxylated	E	≤ 0.01 mg/m³
propylene glycol	E	≤ 0.1 ppm
fenugreek oil	D	> 0.1 to ≤ 1 ppm
DL-alpha-tocopherol acetate	E	≤ 0.1 ppm
phenyl-1-propanol	E	≤ 0.1 ppm
decanol, ethoxylated	E	≤ 0.1 ppm
glyceryl triacetate	E	≤ 0.1 ppm
urea	E	≤ 0.01 mg/m³
Notes:	*Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.*	

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection.

Continued...

8.2.2. Personal protection	
Eye and face protection	‣ Safety glasses with side shields. ‣ Chemical goggles. ‣ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	‣ Wear chemical protective gloves, e.g. PVC. ‣ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ‣ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ‣ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	‣ Overalls. ‣ P.V.C apron. ‣ Barrier cream. ‣ Skin cleansing cream. ‣ Eye wash unit.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Yellow gold paste with special herbal odour; mixes with water.

Physical state	Non Slump Paste	**Relative density (Water = 1)**	Not Available
Odour	Characteristic	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Applicable
pH (as supplied)	5.0-7.0	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Miscible	**pH as a solution (Not Available%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available
Nanoform Solubility	Not Available	**Nanoform Particle Characteristics**	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

Continued...

SECTION 10 Stability and reactivity

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Inhaled	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Not normally a hazard due to non-volatile nature of product Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness and delirium, central depression, coma, seizures and behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and irregular heart rhythms, may follow. Limited evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Limited evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle weakness and inco-ordination, giddiness, confusion, delirium and coma. Ingestion of propylene glycol produced reversible central nervous system depression in humans following ingestion of 60 ml. Symptoms included increased heart-rate (tachycardia), excessive sweating (diaphoresis) and grand mal seizures in a 15 month child who ingested large doses (7.5 ml/day for 8 days) as an ingredient of vitamin preparation. Excessive repeated ingestions may cause hypoglycaemia (low levels of glucose in the blood stream) among susceptible individuals; this may result in muscular weakness, incoordination and mental confusion. Very high doses given during feeding studies to rats and dogs produce central nervous system depression (although one-third of that produced by ethanol), haemolysis and insignificant kidney changes. In humans propylene glycol is partly excreted unchanged in the urine and partly metabolised as lactic and pyruvic acid. Lactic acidosis may result. Vitamin E, a fat-soluble, easily absorbable vitamin, stored in the liver, adipose tissue and muscle, as well as, acts as an antioxidant and free radical scavenger in lipophilic environments, may cause skin rashes and gastrointestinal irritation. It may also present with. Other nonspecific adverse effects such as fatigue, muscle weakness, delayed wound healing, headache and decreased levels of tri-iodothyronine and thyroxine. Nonionic surfactants may produce localised irritation of the oral or gastrointestinal lining and induce vomiting and mild diarrhoea.
Skin Contact	The material may accentuate any pre-existing dermatitis condition Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Non-ionic surfactants cause less irritation than other surfactants as they have less ability to denature protein in the skin. Most liquid alcohols appear to act as primary skin irritants in humans. Significant percutaneous absorption occurs in rabbits but not apparently in man. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage. Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant.
Chronic	There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Vitamin E has been shown to cause life-threatening adverse effects in premature infants, including sepsis and necrotizing enterocolitis (inflammation of the bowel with necrosis). Ascites (swelling in the abdomen), enlargement of the liver, and loss of platelets have also occurred, sometimes resulting in death. One study has shown that alpha-tocopherol at sufficient doses (50mg/d) can greatly increase the risk of subarachnoid haemorrhage in male smokers. Secondary amines may react with nitrites to form potentially carcinogenic N-nitrosamines. Prolonged or repeated skin contact may cause degreasing, followed by drying, cracking and skin inflammation. A number of common flavor and fragrance chemicals can form peroxides surprisingly fast in air. Antioxidants can in most cases minimize the oxidation. Fragrance terpenes are easily oxidized in air. Non-oxidised forms are very weak sensitizers; however, after oxidation, the hyproperoxides are strong sensitisers which may cause allergic reactions. Autooxidation of fragrance terpenes contributes greatly to fragrance allergy. There is the need to test for compounds the patients are actually exposed to, not only the ingredients originally applied in commercial formulations. Peroxidisable terpenes and terpenoids should only be used when the level of peroxides is kept to the lowest practicable level, for instance by adding antioxidants at the time of production. This should be less than 10 millimoles of peroxide per litre. This is because peroxides may have sensitizing properties.

LACTOLUXIN	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
cetyl ether ethoxylated	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >3000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation(Rat) LC50; >1.6 mg/l4h[1]	Skin: no adverse effect observed (not irritating)[1]
	Oral (Mouse) LD50; 2602 mg/kg[2]	
lanolin, ethoxylated	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >21300 mg/kg[2]	Eye (rabbit): non-irritating *

Continued...

		Skin (rabbit): non-irritating *
propylene glycol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 11890 mg/kg[2]	Eye (rabbit): 100 mg - mild
	Inhalation(Rat) LC50; >44.9 mg/L4h[2]	Eye (rabbit): 500 mg/24h - mild
	Oral (Rat) LD50; 20000 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
		Skin(human):104 mg/3d Intermit Mod
		Skin(human):500 mg/7days mild
		Skin: no adverse effect observed (not irritating)[1]
fenugreek oil	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >5000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
		Skin (rabbit): 500 mg/24h moderate
		Skin: adverse effect observed (corrosive)[1]
sorbitan monooleate	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >39800 mg/kg[2]	Skin (rabbit): 0.25 mg mild
DL-alpha-tocopherol acetate	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >3000 mg/kg[1]	Eye (rabbit): non-irritating *
	Oral (Mouse) LD50; >49700 mg/kg[2]	Skin (rabbit): non-irritating *
cholesterol	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Not Available
	Oral (Rat) LD50; >2000 mg/kg[1]	
lecithins, hydrogenated	**TOXICITY**	**IRRITATION**
	Inhalation(Rat) LC50; >0.89 mg/l4h[1]	Not Available
	Oral (Rat) LD50; >2000 mg/kg[1]	
1,2-octanediol	**TOXICITY**	**IRRITATION**
	Inhalation(Rat) LC50; >7.015 mg/l4h[1]	Eye: adverse effect observed (irritating)[1]
	Oral (Rat) LD50; >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]
phenyl-1-propanol	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; 1500 mg/kg[2]	Not Available
decanol, ethoxylated	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >3000 mg/kg[1]	Eye : irritating *
	Inhalation(Rat) LC50; >1.6 mg/l4h[1]	Skin: irritating *
	Oral (Rat) LD50; 2000 mg/kg[2]	
polyethylene glycol	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye (rabbit): 500mg/24h - mild.
	Oral (Rat) LD50; 600 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
		Skin (rabbit): 500mg/24h - mild.
		Skin: no adverse effect observed (not irritating)[1]
castor oil, hydrogenated, ethoxylated	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >2000 mg/kg[1]	Eye (rabbit): slight irritation
		Eye: no adverse effect observed (not irritating)[1]
		Skin (rabbit): slight irritation
		Skin: no adverse effect observed (not irritating)[1]
butyl alcohol propoxylated	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 13340 mg/kg[2]	Eye: adverse effect observed (irritating)[1]
	Inhalation(Rat) LC50; 0.147 mg/L4h[2]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Rabbit) LD50; 1770 mg/kg[2]	Skin: no adverse effect observed (not irritating)[1]

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2-methyl-1,3-propanediol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >2000 mg/kg[2]	Eye (rabbit): Non Irritant [ARCO]
	Inhalation(Rat) LC50; >5.1 mg/L4h[2]	Skin (rabbit): Non Irritant
	Oral (Rat) LD50; >5000 mg/kg[2]	
glycerol	**TOXICITY**	**IRRITATION**
	dermal (guinea pig) LD50: 58500 mg/kg[1]	Not Available
	Oral (Mouse) LD50; 4090 mg/kg[2]	
hexylene glycol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 8560 mg/kg[2]	Eye (rabbit): 93mg - SEVERE
	Oral (Rat) LD50; 3700 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
		Skin (rabbit):465 mg open-mild
		Skin (rabbit):465mg/24hr-moderate
		Skin: no adverse effect observed (not irritating)[1]
polyquaternium-51	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >2000 mg/kg[2]	Eye (rabbit) : Not irritating *
		Skin (rabbit) : Not irritating *
hyaluronic acid sodium salt	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >800 mg/kg[2]	Not Available
sodium pyroglutamate	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50; >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]
trehalose	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >16000 mg/kg[1]	Not Available
glyceryl triacetate	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >2000 mg/kg[2]	Not Available
	Inhalation(Rat) LC50; >1.721 mg/l4h[1]	
	Oral (Mouse) LD50; 1100 mg/kg[2]	
urea	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: 8200 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50; 8471 mg/kg[2]	Skin (human): 22 mg/3 d (I)- mild
		Skin: no adverse effect observed (not irritating)[1]
water	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50; >90000 mg/kg[2]	Not Available
Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*	

LANOLIN, ETHOXYLATED	* [Emery Chemical Co.]
PROPYLENE GLYCOL	The acute oral toxicity of propylene glycol is very low; large amounts are needed to cause perceptible health damage in humans. Serious toxicity generally occurs only at blood concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time; this is nearly impossible with consuming foods or supplements which contain 1g/kg of PG at most. Poisonings are usually due to injection through a vein or accidental swallowing of large amounts by children. The potential for long-term oral toxicity is also low. Prolonged contact with propylene glycol is essentially non-irritating to the skin. Undiluted propylene glycol is minimally irritating to the eye, and can produce a slight, temporary inflammation of the conjunctiva. Exposure to mists may cause irritation of both the eye and the upper airway. Inhalation of propylene glycol vapours may be irritating to some individuals. It is therefore recommended that propylene glycol not be used in applications where inhalation exposure or human eye contact with the spray mists of these materials is likely, such as fogs for theatrical productions or antifreeze solutions for emergency eye wash stations. Propylene glycol is metabolized in humans to pyruvic acid, acetic acid, lactic acid and propionaldehyde; the last of which is potentially hazardous. Propylene glycol show s no evidence of causing cancer or genetic toxicity. Research has suggested that individuals who cannot tolerate propylene glycol probably experience a special form of irritation, but they only rarely develop allergic contact dermatitis. Other investigators believe that the incidence of allergic contact dermatitis in people exposed to propylene glycol may be greater than 2% in patients with eczema. One study strongly suggests a connection between airborne concentrations of propylene glycol in houses and development of asthma and allergic reactions, such as inflammation of the nose and hives, in children. Another study suggested that the concentration of PGEs (propylene glycol and glycol ethers) in indoor air is linked to increased risk of developing numerous respiratory and immune disorders in children, including asthma, hay fever, eczema and allergies, with increased risk ranging from 50% to 180%. This concentration has been linked to use of water-based paints and water-based system cleansers. Patients with bladder inflammation and vulvodynia (chronic pain of the vulva) may be especially sensitive to propylene glycol.

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FENUGREEK OIL	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.
SORBITAN MONOOLEATE	The sorbitan esters are agents that typically find use as emulsifiers, stabilizers, and thickeners in foods, cosmetics and medical products. They do not represent a toxicological concern since they are derived from naturally occurring materials and are ultimately metabolised back to these same natural constituents.
DL-ALPHA-TOCOPHEROL ACETATE	Based on laboratory and animal testing, exposure to the material may result in irreversible effects and mutations in humans. alpha-Tocopherol was non-mutagenic and non-carcinogenic, and the results of reproduction/ teratology studies did not indicate that alpha-tocopherol had adverse effects on reproductive function. However, in a long-term study in rats, a no-effect level could not be established with respect to effects on blood clotting and liver histology, and there was evidence from human studies that excessive intakes of alpha-tocopherol could cause haemorrhage. Other adverse effects noted in clinical studies at doses of > 720 mg alpha-tocopherol/day included weakness, fatigue, creatinuria and effects on steroid hormone metabolism. Clinical studies indicate that, generally, intakes of below about 720 mg/day are without adverse effects in man, but one investigation in elderly patients showed an increase in serum cholesterol at doses of 300 mg alpha-tocopherol daily. Incidences of allergic reactions seem to be very rare. alpha-Tocopherol may be an essential nutrient. The U.S. National Academy of Sciences/National Research Council has recommended a dietary allowance of 0.15 mg/kg b.w./day. However, excessive intakes of alpha-tocopherol produce adverse clinical and biochemical effects, and self-medication with large doses of vitamin E preparations could present a hazard. The previously-allocated ADI was amended to include a lower value, which reflects the fact that alpha-tocopherol may be an essential nutrient. The upper value, which represents the maximum value for the AID, is based on clinical experience in man. IPCS Inchem: http://www.inchem.org/documents/jecfa/jecmono/v21je05.htm May cause skin and eye irritation * Reproductive and mutagenic effects have been observed in tests with laboratory animals * * Alfa Aeser MSDS
CHOLESTEROL	Cholesterol metabolism and adverse effects of high cholesterol intake/disturbed cholesterol regulation has been studied intensively for many years, not only in laboratory animals but also in humans. Reported adverse effects related to increased cholesterol levels/disturbed cholesterol metabolism concern mainly cardiovascular effects. In addition, as the liver plays a key role in cholesterol metabolism, liver is considered as target organ for cholesterol. Cholesterol-related effects on the liver are considered a sensitive parameter for toxicity, as these effects (resulting in disturbed cholesterol metabolism) occur before other adverse effects become effective. No effects on reproduction has been reported, indicating that increased cholesterol levels/exposure does not result in reproduction toxicity at relevant exposure levels. It is therefore considered, that limit values for cholesterol exposure based on liver effects are protective for reproductive toxicity as well. Substance has been investigated as a tumorigen, mutagen and reproductive effector. Cholesterol will oxidize slowly in tissues or foods to form a range of different products with additional hydroperoxy, epoxy, hydroxy or keto groups, and these can enter tissues via the diet. There is increasing interest in these from the standpoint of human health and nutrition, since accumulation of oxo-sterols in plasma is associated with inhibition of the biosynthesis of cholesterol and bile acids and with other abnormalities in plasma lipid metabolism. These and similar cholesterol oxides or oxysterols produced in tissues by specific microsomal or mitochondrial oxidation. Cholesterol esters, i.e. with long-chain fatty acids linked to the hydroxyl group, are much less polar than free cholesterol and appear to be the preferred form for transport in plasma and as a biologically inert storage or de-toxification form to buffer an excess. They do not contribute to membrane structures but are packed into intracellular lipid droplets. Cholesterol esters are major constituents of the adrenal glands, and they accumulate in the fatty lesions of atherosclerotic plaques. Similarly, esters of steroidal hormones are also present in the adrenal glands, where they are concentrated in cytosolic lipid droplets adjacent to the endoplasmic reticulum; 17beta-estradiol, the principal oestrogen in fertile women, is transported in lipoproteins in the form of a fatty acid ester. To more efficiently transport both dietary and synthesized cholesterol, it is converted to cholesteryl esters. Free cholesterol can be taken up by lipoproteins, but is confined to the outer surface of the particle. By converting cholesterol to cholesteryl esters more cholesterol can be packaged into the interior of lipoproteins. This vastly increases the capacity of lipoproteins, allowing for more efficient cholesterol transport through the blood stream. All lipid classes containing polyunsaturated fatty acids are susceptible to oxidation. Under normal circumstances, cholesterol esters are considered to be relatively inert. The substance is classified by IARC as Group 3: **NOT** classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
PHENYL-1-PROPANOL	Unlike benzylic alcohols, the beta-hydroxyl group of the members of benzyl alkyl alcohols contributes to break down reactions but do not undergo phase II metabolic activation. Though structurally similar to cancer causing ethyl benzene, phenethyl alcohol is only of negligible concern due to limited similarity in their pattern of activity. The aryl alkyl alcohol (AAA) fragrance ingredients have diverse chemical structures, with similar metabolic and toxicity profiles. The AAA fragrances demonstrate low acute and subchronic toxicity by skin contact and swallowing. At concentrations likely to be encountered by consumers, AAA fragrance ingredients are non-irritating to the skin. The potential for eye irritation is minimal. With the exception of benzyl alcohol, phenethyl and 2-phenoxyethyl AAA alcohols, testing in humans indicate that AAA fragrance ingredients generally have no or low sensitization potential. Available data indicate that the potential for photosensitization is low. Testing suggests that at current human exposure levels, this group of chemicals does not cause maternal or developmental toxicity. Animal testing shows no cancer-causing evidence, with little or no genetic toxicity. It has been concluded that these materials would not present a safety concern at current levels of use, as fragrance ingredients.
DECANOL, ETHOXYLATED	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. * Rhodia
POLYETHYLENE GLYCOL	for molecular weights (200-8000) * Oral (rat) LD50: 31000->50000 mg/kg Oral (mice) LD50: 38000->50000 mg/kg Oral (g.pig) LD50: 17000->50000 mg/kg Oral (rabbit) LD50: 14000->50000 mg/kg * AIHA WEEL Guides Intraperitoneal (mice) LD50: 3100-12900 mg/kg For polyethylene glycols: Pure polyethylene glycols have essentially similar toxicity, with the lighter species being more toxic. Absorption from the digestive tract decreases with increasing molecular weight. Polyethylene glycols do not have sensitizing and irritating properties on skin, however, allergic reactions (which can present as hives), sometimes delayed, may occur with some lighter species. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
CASTOR OIL, HYDROGENATED, ETHOXYLATED	Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard. Skin irritation: rabbit: non-irritant (OECD Guideline 404) Eye irritation : rabbit: non-irritant (BASF-Test) Sensitization: Guinea pig maximization test/guinea pig: Non-sensitizing. Chronic toxicity Genetic toxicity: In the majority of studies performed with microorganisms and in mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed in in vivo tests. Developmental toxicity/teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. * BASF MSDS Cremaphor RH Surfactant

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	This product contains partially hydrogenated fatty acids and/ or trans fatty acids. The consumption of trans fats increases the risk of coronary heart disease by raising levels of LDL cholesterol and lowering levels of "good" HDL cholesterol. There is an ongoing debate about a possible differentiation between trans fats of natural origin and trans fats of man-made origin but so far no scientific consensus has been found. Two Canadian studies have shown that the natural trans fat vaccenic acid, found in beef and dairy products, may have an opposite health effect and could actually be beneficial compared to hydrogenated vegetable shortening, or a mixture of pork lard and soy fat, by lowering total and LDL cholesterol and triglyceride levels. In lack of recognized evidence and scientific agreement, nutritional authorities consider all trans fats as equally harmful for health and recommend that consumption of trans fats be reduced to trace amounts. The use of hydrogenated oils in foods has never been completely satisfactory. Because the center arm of the triglyceride is shielded somewhat by the end fatty acids, most of the hydrogenation occurs on the end fatty acids, While full hydrogenation produces largely saturated fatty acids, partial hydrogenation results in the transformation of unsaturated cis fatty acids to trans fatty acids in the oil mixture due to the heat used in hydrogenation. Partially hydrogenated oils and their trans fats have increasingly been viewed as "unhealthy". Trans fat is the common name for unsaturated fat with trans-isomer (E-isomer) fatty acid(s). Because the term refers to the configuration of a double carbon-carbon bond, trans fats are sometimes monounsaturated or polyunsaturated, but never saturated. Trans fats do exist in nature but also occur during the processing of polyunsaturated fatty acids in food production. Trans fats occur naturally in a limited number of cases: vaccenyl and conjugated linoleyl (CLA) containing trans fats occur naturally in trace amounts in meat and dairy products from ruminants. The exact biochemical methods by which trans fats produce specific health problems are a topic of continuing research. One theory is that the human lipase enzyme works only on the cis configuration and cannot metabolise a trans fat.
BUTYL ALCOHOL PROPOXYLATED	In general, the toxicity of the PPGs Butyl Ether decreased with increasing molecular weight; for example, PPG-40 Butyl Ether was less toxic than PPG-2 Butyl Ether. Mutagenicity data were not found on the PPGs Butyl Ether. However, an ether of molecular weight 800 Da (~PPG-13 Butyl Ether) was non-carcinogenic when fed to rats for 2 years. Because the PPGs Butyl Ethers undergo metabolic degradation; i.e., the butyl group are removed and oxidized, the PPG chains are split into random length fragments, the genotoxicity of the component chemicals, propylene glycol (PG) and n- Butyl Alcohol, were also considered. Both PG and n-Butyl Alcohol were non-mutagenic in mammalian and microbial assays. PG was non-carcinogenic in a 2-year feeding study using rats and in a lifetime dermal study using mice. These studies effectively eliminated the need for genotoxicity data on the PPG Butyl Ethers. There was concern about the irritancy potential of PPG-2 Butyl Ether. In animal irritation studies, the ingredient caused minor, transient erythema and desquamation; in addition, erythema, edema, ecchymosis, necrosis, and other changes were observed during an acute percutaneous study. PPG-2 Butyl Ether also caused minor to moderate conjunctival irritation and minor corneal injury. It was concluded that the PPG Butyl Ethers were safe for use in cosmetics when formulated to avoid irritation. The dermal LD50 of PPG-3 Butyl Ether was 2 g/kg in rats and rabbits, and the dermal LD50 of Buteth-3 in rats was 3.5 g/kg. The oral LD50 of PPG-3 Butyl Ether and of Buteth-3 in rats was 2 g/kg and 6.6 g/kg, respectively. Polypropyleneglycol butyl ethers (not defined) had a dermal and an oral LD50 of 2 g/kg and 0.3-2 g/kg bw, respectively,in mice.Buteth-3 (1000 mg/kg/day) was not toxic to rabbits in a 21-day dermal study; erythema, desquamation,and fissuring were observed In short-term oral toxicity studies in rats, PPG-3 Butyl Ether had a NOAEL of 1000 mg/kg bw; polypropylene glycol butyl ethers had a NOEL of 100 mg/kg bw/day for clinical observations, higher absolute and relative liver weights, and an increased incidence of liver and thyroid gland hypertrophy; and 1-(2-butoxy-1-methylethoxy)propan-2-ol had a NOAEL of 100 mg/kg/day based on very slight to slight hepatocellular hypertrophy with no corresponding increases in liver weights in low-dose males. In a 90-day oral toxicity study, administration of up to 1000 mg/kg bw/day PPG-3 Butyl Ether to rats in drinking water produced treatment-related increases in absolute and relative liver and kidney weights. The NOAELs in rats and mice exposed to=3000 ppm methoxyisopropanol via inhalation for 2 yrs were 1000 ppm (based on slight body wt decreases in males and females) and 300 ppm (based on altered hepatocellular foci in males), respectively.Dermal application of propylene glycol butyl ether was not embryotoxic or teratogenic to rabbits (=100 mg/kg bw/day applied on days 7-18 of. gestation) or rats (=1.0 ml/kg bw/day applied on days 6-16 of gestation). 1-(2-Butoxy-1-methyl-ethoxy)propan-2-ol (applied on days 6-16 or 6-15 of gestation) also was not embryotoxic or teratogenic in rats. No test-article related adverse developmental or reproductive effects were observed in rats dosed by gavage with up to 1000 mg/kg Buteth-3 or 1-(2-butoxy-1-methylethoxy)propan-2-ol or up to 500 mg/kg bw/day polypropylene glycol butyl ethers. In inhalation studies, exposure of rats to =1.0 mg/l air PPG-3 Methyl Ether did not have any teratogenic or reproductive effects. Exposure to 1000 and 3000 ppm methoxyisopropanol produced some adverse effects in a two-generation study in rats; adverse effects were not observed with 300 ppm. PPG-3 Butyl Ether was not genotoxic in vitro in the Ames test or in vivo in a mouse micronucleus assay. Propylene glycol butyl ether was not genotoxic in an Ames test or a mammalian chromosomal aberration assay in rat lymphocytes, andneither propylene glycol butyl ether or 1-(2-butoxy-1-methylethoxy)propan-2-ol were genotoxic in a mammalian cellmutation assay in CHO cell. In inhalation carcinogenicity studies, mice and rats were exposed by whole body exposure to =3000 ppm methoxyisopropan-ol for 2 yrs. An increase in S-phase DNA synthesis and in MFO activity in the liver was observed in high-dose male mice and rats. Renal epithelial tumors were not observed, and the NOEL for carcinogenicity was 3000 ppm for mice and rats. Undiluted PPG-3 Butyl Ether was not irritating to rabbit skin or eyes, and it was not an irritant or sensitizer in guinea pigs. Polypropylene glycol butyl ethers were classified as non-corrosive in an EpiDermTM study Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal. However, repeated exposure may cause dose dependent damage to the kidneys as well as reproductive and developmental defects.
GLYCEROL	At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it is of low toxicity. There is no significant evidence to suggest that it causes cancer, genetic, reproductive or developmental toxicity.
HEXYLENE GLYCOL	Hexylene glycol is of low acute toxicity but may be acutely lethal at very high doses. It may cause reversible irritation of the skin and eye. Repeated exposure may cause irreversible damage to the liver and stomach and partly reversible kidney damage. It is likely not to cause mutations or affect reproduction or development of the unborn.
POLYQUATERNIUM-51	Non-sensitiser (guinea pig) * *Bronson and Jacobs SDS (Lipidure PMB) One study has linked the microbial catabolites of phosphatidylcholine with increased atherosclerosis through the production of choline, trimethylamine oxide, and betaine. As critics have noted, however] a 1999 study by other authors who studied 46 different foods did not find choline-rich foods to cause TMAO production. As cationic polymers possess unique physical structures and surface properties, various kinds of cationic polymers have been developed over the past few decades for a wide spectrum of nanomedical applications in the central nervous system (CNS). Although cationic polymers could be successfully used for gene transfer, drug delivery, and diagnostic imaging, after entering into the CNS, they may cause neurotoxicity and induce CNS damage, which seriously limits their applications. The neurotoxic effects of cationic polymers on CNS are mostly studied in mice, and have not been examined in detail. While evaluating the neurotoxicity of cationic polymers, the surface charge, surface area, coating, size, shape, and the basic materials that cationic polymers are made up of are expected to show important roles, and should be carefully considered. Apoptosis, necrosis, autophagy, oxidative stress, inflammation, and inflammasome; which are expected to be the most important problems in the evaluation of cationic polymers-induced neurotoxicity.
HYALURONIC ACID SODIUM SALT	Eye effects, convulsions, dyspnea, respiratory stimulation, nausea, vomiting, normocytic anaemia, dermatitis after systemic exposure, paternal effects, maternal effects, specific developmental abnormalities of the musculoskeletal system, effects on newborn recorded.
SODIUM PYROGLUTAMATE	For L-pidolic acid (syn: pyroglutamic acid, 5-oxoproline, 2-pyrrolidone-5-carboxylic acid) its salts and compounds: From the available data it can be concluded that calcium, iron, magnesium, potassium and zinc are absorbed from L-pidolates. Their bioavailability is comparable to that from other water-soluble and dissociable calcium, iron, magnesium, potassium and zinc salts permitted to be used in food supplements and foods in tended for particular nutritional uses. L-pidolic acid occurs in numerous plants and is a natural constituent of a number of foods. It is formed in human metabolism from glutamic acid and can be metabolised after oral intake to glutamic acid. Bioavailability: A number of studies with animals, healthy persons and patients show that calcium, iron, magnesium, potassium and zinc are absorbed after ingestion of their L-pidolates. The bioavailability of these cations is expected to be similar to that from other water-soluble and dissociable salts of these metals. Toxicological data: Metabolism and kinetics L-pidolic acid is a cyclisation product and metabolite of glutamic acid and plays an important role in the endogenous gamma-glutamyl cycle. It is formed from glutamic acid or gamma-glutamyl amino acids by gamma-glutamylcyclotransferase and

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	retransformed to glutamic acid by 5-oxo-prolinase. It has been reported to be present in human plasma. It can be expected from data in mice, that orally ingested L-pidolates are absorbed and at certain doses will result in increased plasma levels of L-pidolic acid. The oral dose at which considerable increases in plasma L-pidolic acid level were observed in mice, was as high as 0.5g/kg bw, equivalent to 30 g for a 60 kg human adult. In a rare metabolic disorder, the pyroglutamic acidaemia, L-pidolate is accumulated in blood and tissues and excreted in urine in large amounts. The primary defect in patients with this disorder is not related to L-pidolates, but is a deficiency of glutathione synthetase. Such a deficiency causes a lack of intracellular glutathione and an increased production of gamma -glutamyl-cysteine, giving rise to an abnormal rate of L-pidolate formation as secondary effect.
UREA	Altered sleep time, change in motor activity, antipsychosis, dyspnea, methaemoglobinaemia, convulsions, lymphomas recorded. Carcinogenic by RTECS criteria. For urea: Urea is used in ointments and creams to treat dry skin. Long-term follow-up studies have indicated that the substance does not cause allergy, and is virtually free from side effects. It is usually tolerated well, although diarrhea is sometimes reported after ingestion of very large amounts (60-90 grams/day). There is the possibility that infection of H. pylori in the human stomach may aggravate local effects by urea because of the generation of ammonia. Acute toxicity: Animal testing shows that the acute toxicity of urea is low. Repeated dose toxicity: No well-conducted repeated dose toxicity studies were located. Tests involving the skin on animals suggested low toxicity. Reproductive and developmental toxicity: No adequate data exists regarding the reproductive/developmental toxicity of urea. Genetic toxicity: Urea has been negative in several appropriately conducted tests on bacteria to assess mutation-causing potential. In mammals, it causes chromosomal aberrations only at concentrations much higher than the physiological range.
CETYL ETHER ETHOXYLATED & LANOLIN, ETHOXYLATED & DECANOL, ETHOXYLATED & BUTYL ALCOHOL PROPOXYLATED	Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact. Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to severe irritation occurred when undiluted alcohol ethyoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates. Some of the oxidation products of this group of substances may have sensitizing properties. As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing. Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.
PROPYLENE GLYCOL & FENUGREEK OIL & SORBITAN MONOOLEATE & PHENYL-1-PROPANOL & DECANOL, ETHOXYLATED & POLYETHYLENE GLYCOL & UREA	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
FENUGREEK OIL & SORBITAN MONOOLEATE & CHOLESTEROL & LECITHINS, HYDROGENATED & 1,2-OCTANEDIOL & POLYQUATERNIUM-51 & TREHALOSE & WATER	No significant acute toxicological data identified in literature search.
DL-ALPHA-TOCOPHEROL ACETATE & UREA	**NOTE:** Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.
PHENYL-1-PROPANOL & DECANOL, ETHOXYLATED & GLYCEROL & UREA	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.
POLYETHYLENE GLYCOL & CASTOR OIL, HYDROGENATED, ETHOXYLATED & BUTYL ALCOHOL PROPOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✓	**Reproductivity**	✗
Serious Eye Damage/Irritation	✓	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✓	**STOT - Repeated Exposure**	✗
Mutagenicity	✗	**Aspiration Hazard**	✗

Legend: ✗ *– Data either not available or does not fill the criteria for classification*
✓ *– Data available to make classification*

11.2.1. Endocrine Disruption Properties

Not Available

SECTION 12 Ecological information

12.1. Toxicity

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LACTOLUXIN

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

cetyl ether ethoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
EC20(ECx)	72h	Algae or other aquatic plants	0.084mg/l	2
LC50	96h	Fish	108mg/l	2
EC50	72h	Algae or other aquatic plants	>100mg/l	2

lanolin, ethoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

propylene glycol

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	336h	Algae or other aquatic plants	<5300mg/l	1
LC50	96h	Fish	>10000mg/l	2
EC50	72h	Algae or other aquatic plants	19300mg/l	2
EC50	48h	Crustacea	>114.4mg/L	4
EC50	96h	Algae or other aquatic plants	19000mg/l	2

fenugreek oil

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

sorbitan monooleate

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

DL-alpha-tocopherol acetate

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	96h	Fish	11mg/l	2
LC50	96h	Fish	>11mg/l	2
EC50	72h	Algae or other aquatic plants	>27.8mg/l	2
EC50	48h	Crustacea	>20.6mg/l	2

cholesterol

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	3h	Fish	64mg/L	4

lecithins, hydrogenated

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	72h	Algae or other aquatic plants	~10mg/l	2
LC50	96h	Fish	>100mg/l	2
EC50	48h	Crustacea	>1000mg/l	2

1,2-octanediol

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	72h	Algae or other aquatic plants	15mg/l	2
EC50	72h	Algae or other aquatic plants	35mg/l	2
LC50	96h	Fish	>2.2<22mg/l	2
EC50	48h	Crustacea	176mg/l	2

phenyl-1-propanol

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

decanol, ethoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	1.2mg/l	2
EC50	72h	Algae or other aquatic plants	0.18mg/l	2
EC50	48h	Crustacea	0.39mg/l	2
EC0(ECx)	72h	Algae or other aquatic plants	0.088mg/l	2

polyethylene glycol

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>100mg/l	2
EC50	48h	Crustacea	>100mg/l	2
EC50(ECx)	96h	Algae or other aquatic plants	>100mg/l	2
EC50	96h	Algae or other aquatic plants	>100mg/l	2

Continued...

castor oil, hydrogenated, ethoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	72h	Algae or other aquatic plants	>1mg/l	2
LC50	96h	Fish	>1mg/l	2
EC50	72h	Algae or other aquatic plants	>1mg/l	2
EC50	48h	Crustacea	>1mg/l	2

butyl alcohol propoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	72h	Algae or other aquatic plants	62.5mg/l	2
LC50	96h	Fish	1350mg/l	1
EC50	72h	Algae or other aquatic plants	>500mg/l	1
EC50	48h	Crustacea	>500mg/l	1
EC50	96h	Algae or other aquatic plants	744.74mg/l	2
NOEC(ECx)	96h	Algae or other aquatic plants	<15.9mg/l	2
LC50	96h	Fish	564mg/l	2
EC50	72h	Algae or other aquatic plants	445mg/l	2
EC50	48h	Crustacea	>100mg/l	2
EC50	96h	Algae or other aquatic plants	315mg/l	2
EC50(ECx)	48h	Crustacea	89-101mg/L	4
LC50	96h	Fish	48-52mg/L	4
EC50	48h	Crustacea	89-101mg/L	4

2-methyl-1,3-propanediol

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>1000mg/l	2
EC50	72h	Algae or other aquatic plants	>1000mg/l	2
EC50	48h	Crustacea	>1000mg/l	2
NOEC(ECx)	Not Available	Crustacea	>=100mg/l	2

glycerol

Endpoint	Test Duration (hr)	Species	Value	Source
EC0(ECx)	24h	Crustacea	>500mg/l	1
LC50	96h	Fish	885mg/l	2

hexylene glycol

Endpoint	Test Duration (hr)	Species	Value	Source
EC10(ECx)	72h	Algae or other aquatic plants	>429mg/l	2
LC50	96h	Fish	>100mg/l	4
EC50	72h	Algae or other aquatic plants	>429mg/l	2
EC50	48h	Crustacea	2800mg/l	1

polyquaternium-51

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

hyaluronic acid sodium salt

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

sodium pyroglutamate

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	72h	Algae or other aquatic plants	12.5mg/l	2
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	68.87mg/l	2
EC50	48h	Crustacea	>100mg/l	2

trehalose

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	72h	Algae or other aquatic plants	5.42mg/l	2
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	13.54mg/l	2
EC50	48h	Crustacea	>100mg/l	2

glyceryl triacetate

Endpoint	Test Duration (hr)	Species	Value	Source
EC0(ECx)	48h	Crustacea	65mg/l	1
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	>940mg/l	2
EC50	48h	Crustacea	380mg/l	1

Continued...

urea	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	NOEC(ECx)	48h	Algae or other aquatic plants	7mg/l	4
	LC50	96h	Fish	4.65-8.48mg/l	4
	EC50	48h	Crustacea	6119-7061mg/l	4
water	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
cetyl ether ethoxylated	LOW	LOW
propylene glycol	LOW	LOW
sorbitan monooleate	LOW	LOW
DL-alpha-tocopherol acetate	HIGH	HIGH
cholesterol	HIGH	HIGH
1,2-octanediol	LOW	LOW
polyethylene glycol	LOW	LOW
butyl alcohol propoxylated	LOW	LOW
2-methyl-1,3-propanediol	LOW	LOW
glycerol	LOW	LOW
hexylene glycol	LOW	LOW
trehalose	LOW	LOW
glyceryl triacetate	LOW	LOW
urea	LOW	LOW
water	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
cetyl ether ethoxylated	HIGH (LogKOW = 6.4598)
propylene glycol	LOW (BCF = 1)
sorbitan monooleate	HIGH (LogKOW = 5.8851)
DL-alpha-tocopherol acetate	LOW (LogKOW = 11.9136)
cholesterol	LOW (LogKOW = 8.7386)
1,2-octanediol	LOW (LogKOW = 1.6735)
polyethylene glycol	LOW (LogKOW = -1.1996)
butyl alcohol propoxylated	LOW (LogKOW = 1.2706)
2-methyl-1,3-propanediol	LOW (LogKOW = -0.2909)
glycerol	LOW (LogKOW = -1.76)
hexylene glycol	LOW (LogKOW = 0.5802)
trehalose	LOW (LogKOW = -5.4812)
glyceryl triacetate	LOW (BCF = 1.3)
urea	LOW (BCF = 10)

12.4. Mobility in soil

Ingredient	Mobility
cetyl ether ethoxylated	LOW (KOC = 1292)
propylene glycol	HIGH (KOC = 1)
sorbitan monooleate	LOW (KOC = 565.1)
DL-alpha-tocopherol acetate	LOW (KOC = 13870000)
cholesterol	LOW (KOC = 1417000)
1,2-octanediol	LOW (KOC = 10)
polyethylene glycol	HIGH (KOC = 1)
butyl alcohol propoxylated	LOW (KOC = 10)
2-methyl-1,3-propanediol	HIGH (KOC = 1)
glycerol	HIGH (KOC = 1)

Continued...

Ingredient	Mobility
hexylene glycol	HIGH (KOC = 1)
trehalose	LOW (KOC = 10)
glyceryl triacetate	LOW (KOC = 48.06)
urea	LOW (KOC = 4.191)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗

PBT Criteria fulfilled?	No
vPvB	No

12.6. Endocrine Disruption Properties

Not Available

12.7. Other adverse effects

Not Available

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. ▸ Return to supplier for reuse/ recycling if possible. Otherwise: ▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▸ Where possible retain label warnings and SDS and observe all notices pertaining to the product. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Where in doubt contact the responsible authority. ▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Authority for disposal. ▸ Bury or incinerate residue at an approved site. ▸ Recycle containers if possible, or dispose of in an authorised landfill.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. **UN number**	Not Applicable
14.2. **UN proper shipping name**	Not Applicable
14.3. **Transport hazard class(es)**	Class: Not Applicable Subrisk: Not Applicable
14.4. **Packing group**	Not Applicable
14.5. **Environmental hazard**	Not Applicable
14.6. **Special precautions for user**	Hazard identification (Kemler): Not Applicable Classification code: Not Applicable Hazard Label: Not Applicable Special provisions: Not Applicable Limited quantity: Not Applicable Tunnel Restriction Code: Not Applicable

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. **UN number**	Not Applicable
14.2. **UN proper shipping name**	Not Applicable

Continued...

14.3. **Transport hazard class(es)**	ICAO/IATA Class	Not Applicable
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	Not Applicable
14.4. **Packing group**	Not Applicable	
14.5. **Environmental hazard**	Not Applicable	
14.6. **Special precautions for user**	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. **UN number**	Not Applicable	
14.2. **UN proper shipping name**	Not Applicable	
14.3. **Transport hazard class(es)**	IMDG Class	Not Applicable
	IMDG Subrisk	Not Applicable
14.4. **Packing group**	Not Applicable	
14.5. **Environmental hazard**	Not Applicable	
14.6. **Special precautions for user**	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. **UN number**	Not Applicable	
14.2. **UN proper shipping name**	Not Applicable	
14.3. **Transport hazard class(es)**	Not Applicable	Not Applicable
14.4. **Packing group**	Not Applicable	
14.5. **Environmental hazard**	Not Applicable	
14.6. **Special precautions for user**	Classification code	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.8. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
cetyl ether ethoxylated	Not Available
lanolin, ethoxylated	Not Available
propylene glycol	Not Available
fenugreek oil	Not Available
sorbitan monooleate	Not Available
DL-alpha-tocopherol acetate	Not Available
cholesterol	Not Available
lecithins, hydrogenated	Not Available
1,2-octanediol	Not Available
phenyl-1-propanol	Not Available
decanol, ethoxylated	Not Available
polyethylene glycol	Not Available
castor oil, hydrogenated, ethoxylated	Not Available

Continued...

Product name	Group
butyl alcohol propoxylated	Not Available
2-methyl-1,3-propanediol	Not Available
glycerol	Not Available
hexylene glycol	Not Available
polyquaternium-51	Not Available
hyaluronic acid sodium salt	Not Available
sodium pyroglutamate	Not Available
trehalose	Not Available
glyceryl triacetate	Not Available
urea	Not Available
water	Not Available

14.9. Transport in bulk in accordance with the ICG Code

Product name	Ship Type
cetyl ether ethoxylated	Not Available
lanolin, ethoxylated	Not Available
propylene glycol	Not Available
fenugreek oil	Not Available
sorbitan monooleate	Not Available
DL-alpha-tocopherol acetate	Not Available
cholesterol	Not Available
lecithins, hydrogenated	Not Available
1,2-octanediol	Not Available
phenyl-1-propanol	Not Available
decanol, ethoxylated	Not Available
polyethylene glycol	Not Available
castor oil, hydrogenated, ethoxylated	Not Available
butyl alcohol propoxylated	Not Available
2-methyl-1,3-propanediol	Not Available
glycerol	Not Available
hexylene glycol	Not Available
polyquaternium-51	Not Available
hyaluronic acid sodium salt	Not Available
sodium pyroglutamate	Not Available
trehalose	Not Available
glyceryl triacetate	Not Available
urea	Not Available
water	Not Available

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

cetyl ether ethoxylated is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

lanolin, ethoxylated is found on the following regulatory lists

Not Applicable

propylene glycol is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

fenugreek oil is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

sorbitan monooleate is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

DL-alpha-tocopherol acetate is found on the following regulatory lists

Continued...

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

cholesterol is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
France Threshold Limit Values for Occupational Exposure - VLE/VME
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

lecithins, hydrogenated is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

1,2-octanediol is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

phenyl-1-propanol is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

decanol, ethoxylated is found on the following regulatory lists

Europe EC Inventory
France Eurotunnel's dangerous goods guide 2021 - List of dangerous goods accepted (French)

polyethylene glycol is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

castor oil, hydrogenated, ethoxylated is found on the following regulatory lists

Europe EC Inventory

butyl alcohol propoxylated is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

2-methyl-1,3-propanediol is found on the following regulatory lists

Europe EC Inventory

glycerol is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
France Threshold Limit Values for Occupational Exposure - VLE/VME

hexylene glycol is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI
France Threshold Limit Values for Occupational Exposure - VLE/VME

polyquaternium-51 is found on the following regulatory lists

Europe EC Inventory

hyaluronic acid sodium salt is found on the following regulatory lists

Not Applicable

sodium pyroglutamate is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

trehalose is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

glyceryl triacetate is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

urea is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

water is found on the following regulatory lists

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Continued...

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	No (lecithins, hydrogenated; polyquaternium-51)
Canada - NDSL	No (cetyl ether ethoxylated; lanolin, ethoxylated; propylene glycol; fenugreek oil; sorbitan monooleate; DL-alpha-tocopherol acetate; cholesterol; lecithins, hydrogenated; 1,2-octanediol; phenyl-1-propanol; decanol, ethoxylated; polyethylene glycol; castor oil, hydrogenated, ethoxylated; butyl alcohol propoxylated; 2-methyl-1,3-propanediol; glycerol; hexylene glycol; hyaluronic acid sodium salt; sodium pyroglutamate; trehalose; glyceryl triacetate; urea; water)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (lanolin, ethoxylated; polyquaternium-51; hyaluronic acid sodium salt)
Japan - ENCS	No (fenugreek oil; lecithins, hydrogenated; polyquaternium-51; hyaluronic acid sodium salt)
Korea - KECI	No (lecithins, hydrogenated; polyquaternium-51; hyaluronic acid sodium salt)
New Zealand - NZIoC	No (polyquaternium-51)
Philippines - PICCS	No (lecithins, hydrogenated; polyquaternium-51; hyaluronic acid sodium salt)
USA - TSCA	No (lecithins, hydrogenated; hyaluronic acid sodium salt)
Taiwan - TCSI	No (phenyl-1-propanol)
Mexico - INSQ	No (lanolin, ethoxylated; fenugreek oil; cholesterol; lecithins, hydrogenated; phenyl-1-propanol; decanol, ethoxylated; polyethylene glycol; castor oil, hydrogenated, ethoxylated; polyquaternium-51; hyaluronic acid sodium salt; trehalose)
Vietnam - NCI	No (phenyl-1-propanol)
Russia - FBEPH	No (cetyl ether ethoxylated; lanolin, ethoxylated; fenugreek oil; cholesterol; lecithins, hydrogenated; 1,2-octanediol; phenyl-1-propanol; polyquaternium-51; hyaluronic acid sodium salt; sodium pyroglutamate; trehalose)
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Revision Date	09/05/2022
Initial Date	09/05/2022

Full text Risk and Hazard codes

H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H319	Causes serious eye irritation.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

end of SDS