PALCAM Broth

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 05-13-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form	: Mixture
Trade name	: PALCAM Broth
Type of product	: Food Safety -- [Food Safety]
Product code	: NCM0049

1.2. Other means of identification

Part Number(s) : NCM0049|400000766|700003093|700003094|700003095

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals,Scientific research and development

1.4. Supplier's details

Neogen Corporation
620 Lesher Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Acute toxicity (oral), Category 4	H302	Harmful if swallowed
Skin corrosion/irritation, Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation
Reproductive toxicity, Category 1A	H360	May damage fertility or the unborn child
Reproductive toxicity, Additional category for effects on or via lactation	H362	May cause harm to breast-fed children
Specific target organ toxicity, Single exposure, Category 2	H371	May cause damage to organs.
Specific target organ toxicity, Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :

Signal word (GHS CA) : Danger

Hazard statements (GHS CA)	:	H302 - Harmful if swallowed H315 - Causes skin irritation H319 - Causes serious eye irritation H360 - May damage fertility or the unborn child H362 - May cause harm to breast-fed children H371 - May cause damage to organs. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (GHS CA)	:	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust, fume, gas, mist, vapors, spray. P263 - Avoid contact during pregnancy and while nursing. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER or a doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P311 - IF exposed or concerned: Call a POISON CENTER or a doctor. P308+P313 - IF exposed or concerned: Get medical advice or attention. P314 - Get medical advice or attention if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P330 - Rinse mouth. P332+P313 - If skin irritation occurs: Get medical advice or attention. P337+P313 - If eye irritation persists: Get medical advice or attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P405 - Store locked up. P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Lithium chloride	Lithium chloride hydrochloric acid lithium salt / hydrochloric acid, dilithium salt / lithium chloride / lithium chloride (LiCl) / lithium chloride, anhydrous	CAS-No.: 7447-41-8	18.738	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs.	(Z)-Mono-9-octadecenoate sorbitan poly(oxy-1,2-ethanediyl) derivs. ; Polyoxyethylene sorbitan monooleate alkamuls PSMO 20 / armotan PMO-20 / atlox 1087 / atlox 8916TF / capmul POE-O / cemerol T 80 / cemesol TW 1020 / crill 10 / crill 11 / crill S 10 / crillet 4 / crillet 41 / disponil SMO 120 / drewmulse POE-SMO / durfax 80 / emsorb 6900 / emulgin SMO 20 / emulson 100M / ethoxylated sorbitan monooleate / ethylene oxide-sorbitan mono-oleate polymer / flo Mo SMO 20 / glycols, polyethylene, ether with sorbitan monooleate / glycosperse O 5 / glycosperse O-20 / glycosperse O-20 VEG / glycosperse O-20X / hexaethylene glycol sorbitan monoleate / hodag SVO 9 / ionet T80 / ionet T80C / liposorb O-20 / liposord L-20 / MO 55F / monitan / montanox 80 / nikkol TO / nikkol TO 10 / nikkol TO 106 / nikkol TO 10M / nissan	CAS-No.: 9005-65-6	4.164	Aquatic Acute 3, H402 Aquatic Chronic 3, H412

	nonion OT 221 / nonion OT 221 / olothorb / polyethylene glycol sorbitan ether monooleate / polyethylene glycol sorbitan monooleate / polyethylene oxide sorbitan mono-oleate / polyoxyethylated sorbitan monooleate / polyoxyethylene (20) sorbitan monooleate / polyoxyethylene monosorbitan monooleate / polyoxyethylene sorbitan oleate / polyoxyethylene sorbitanmonooolea te / polyoxyethylene(2 0)sorbitan monooleate / protasorb O-20 / PST40200 / rheodol super TW-O120 / rheodol TW-L 80 / rheodol TW-O 106 / rheodol TW-O 120 / romulgin O / setrolene O / sorbimacrogol oleate / sorbimacrogol oleate 300 / sorbital 0 20 / sorbitan mono-9-octadecenoate poly(oxy-1,2-ethanediyl) derives / sorbitan monoleate / sorbitan monooleate ethylene oxide adduct / sorbitan monooleate polyethylene glycol ether / sorbitan mono-			

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
	oleate polyoxyethylene / sorbitan monooleate polyoxyethylene derivatives / sorbitan monooleate polyoxyethylene ether / Sorbitan monooleate, ethoxylated / sorbitan oleate-ethylene oxide adduct / sorbitan, mono-9-octadecenoate, poly(oxy-1,2-ethanediyl) der / sorbitan, monooleate, polyoxyethylene derivs. / sorbon T 80 / sorethytan (20) mono-oleate / sorgen TW 80 / sorlate / SVO 9 / T-164 / TO 10 / TO 10M / tris(polyoxyethylene)sorbitan monooleate / TWEEN 18:1c / TWEEN 81 / TWEEN 81 (polysorbate 81) / witconol 2722			

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Esculin	(-)-esculin / 2H-1-benzopyran-2-one, 6-(beta-D-glucopyranosyloxy)-7-hydroxy- / 6-(beta-D-glucopyranosyloxy)-7-hydroxy-2H-1-benzopyran-2-one / 6-(beta-D-glucopyranosyloxy)-7-hydroxycoumarin / 6,7-dihydroxycoumarin 6-glucoside / 6,7-dihydroxycoumarin-6beta-D-glucopyranoside / aesculin / bicolorin / crataegin / enallachrome / escosyl / esculetin 6-beta-D-glucoside / esculetin 6-O-glucoside / esculine / esculoside / polychrom / polychrome / vitamin C2	CAS-No.: 531-75-9	2.143	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Sodium carbonate	Sodium Carbonate anhydrous soda / ash / bisodium carbonate / calcined soda(=sodium carbonate) / carbonic acid sodium salt / carbonic-acid-disodium-salt- / CASWELL NO. 752 / chrystol carbonate / crystol carbonate (=sodium carbonate) / natural ash / Na-X / snowlite 1 / soda (=sodium carbonate) / soda ash / soda, crystals / sodium carbonate / sodium carbonate, anhydrous / sodium carbonate, anhydrous ASTM D458 / sodium carbonate, anhydrous GE materials D4D5 / sodium carbonate, anhydrous powder / sodium carbonate, crude / sodium carbonate, granular / Solvay soda / synthetic ash / washing soda (=sodiumcarbonate)	CAS-No.: 497-19-8	1.249	Eye Irrit. 2, H319

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Ferric ammonium citrate	Ammonium iron(3+) citrate 1,2,3-propanetricarboxylic acid, 2-hydroxy-, ammonium iron(3+) salt / 2-hydroxy-1,2,3-propanetricarboxylic acid,ammonium iron(3+) salt / ammonium ferric citrate / ammonium ferric citrate,brown / ammonium ferric citrate,green / ammonium iron(III) citrate, green / ammonium iron(III) citrate,red-brown / citric acid ammonium iron(III) salt / citric acid,ammonium iron(3+) salt / FAC / ferric ammonium citrate / ferric ammonium citrate,brown / ferric ammonium citrate,green / iron ammonium citrate / iron(III) ammonium citrate	CAS-No.: 1185-57-5	1.071	Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.
Symptoms/effects after ingestion : Harmful if swallowed.
Chronic symptoms : May damage fertility or the unborn child.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

Environmental precautions : Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Ensure good ventilation of the work station. Obtain special instructions before use. Avoid contact during pregnancy/while nursing. Do not breathe dust/fume/gas/mist/vapors/spray. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures	:	Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Keep in a cool, well-ventilated place away from heat.
Storage conditions	:	Store locked up.
Storage temperature	:	2 – 30 °C
Packaging materials	:	Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Ensure good ventilation of the work station.
Environmental exposure controls	:	Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Powder.
Color	:	Beige
Odor	:	Characteristic
Odor threshold	:	No data available
pH	:	7.2 – 7.6
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	Not applicable
Explosion limits	:	Not applicable
Particle characteristics	:	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	None under recommended storage and handling conditions (see section 7).
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	:	No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

PALCAM Broth	
ATE CA (oral)	1547.472 mg/kg body weight

PALCAM Broth	
Unknown acute toxicity (GHS CA)	21.73% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 32.14% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 50.88% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Sodium carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg (Rat, Male / female, Experimental value of similar product, Hydrate form, Oral, 14 day(s))
LD50 oral	2800 mg/kg
LD50 dermal rabbit	> 2000 mg/kg (16 CFR 1500.40, 24 h, Rabbit, Experimental value of similar product, Hydrate form, Dermal, 14 day(s))
LD50 dermal	2500 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.2 mg/l/4h
ATE CA (oral)	2800 mg/kg body weight
ATE CA (Dermal)	2500 mg/kg body weight
ATE CA (dust,mist)	1.2 mg/l/4h

Lithium chloride (7447-41-8)	
LD50 oral rat	526 mg/kg (Rat, Male, Experimental value, Oral)
LD50 oral	526 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal rabbit	1488 mg/kg Source: Corporate Solution From Thomson Micromedex
LC50 Inhalation - Rat	> 5.57 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE CA (oral)	526 mg/kg body weight
ATE CA (Dermal)	1488 mg/kg body weight

Ferric ammonium citrate (1185-57-5)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: other:
LD50 dermal rabbit	> 7940 mg/kg Source: ECHA

Esculin (531-75-9)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

Skin corrosion/irritation : Causes skin irritation.
pH: 7.2 – 7.6

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)	
pH	5 – 7 (5 %)

Lithium chloride (7447-41-8)	
pH	7 (57 %, 20 °C, OECD 105: Water Solubility)

Ferric ammonium citrate (1185-57-5)	
pH	6 – 8 Source: ECHA

Serious eye damage/irritation : Causes serious eye irritation.
pH: 7.2 – 7.6

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)	
pH	5 – 7 (5 %)

Lithium chloride (7447-41-8)	
pH	7 (57 %, 20 °C, OECD 105: Water Solubility)

Ferric ammonium citrate (1185-57-5)	
pH	6 – 8 Source: ECHA

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : May damage fertility or the unborn child. May cause harm to breast-fed children.

Ferric ammonium citrate (1185-57-5)	
NOAEL (animal/male, F0/P)	595.9 mg/kg body weight Animal: rat, Animal sex: male, Guideline: other:

STOT-single exposure : May cause damage to organs.

Ferric ammonium citrate (1185-57-5)	
STOT-single exposure	May cause respiratory irritation.

Esculin (531-75-9)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Lithium chloride (7447-41-8)	
NOAEL (oral,rat,90 days)	84.8 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)

Aspiration hazard : Not classified

PALCAM Broth	
Viscosity, kinematic	Not applicable

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)	
Viscosity, kinematic	462.963 – 46648.148 mm²/s

Sodium carbonate (497-19-8)	
Viscosity, kinematic	Not applicable (solid)

Lithium chloride (7447-41-8)	
Viscosity, kinematic	Not applicable (solid)

Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.
Symptoms/effects after ingestion : Harmful if swallowed.
Chronic symptoms : May damage fertility or the unborn child.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified.

Hazardous to the aquatic environment, long–term (chronic) : Not classified.

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)	
LC50 - Fish [1]	817.89 mg/l Source: ECOSAR
EC50 96h - Algae [1]	62.072 mg/l Source: ECOSAR

Sodium carbonate (497-19-8)	
LC50 - Fish [1]	300 mg/l (96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	200 – 227 mg/l (48 h, Ceriodaphnia sp., Semi-static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.
EC50 96h - Algae [1]	242 mg/l Source: ECOTOX

Lithium chloride (7447-41-8)	
LC50 - Fish [1]	158 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	249 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 400 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	> 400 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	112 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC chronic fish	17.35 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d'
NOEC (chronic)	1.7 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic algae	25 mg/l
LOEC (chronic)	2.53 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Ferric ammonium citrate (1185-57-5)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Static system, Fresh water, Experimental value)
LC50 - Fish [2]	> 100 mg/l Test organisms (species): other:
EC50 - Crustacea [1]	275 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): other:

Esculin (531-75-9)	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

PALCAM Broth	
Persistence and degradability	Not rapidly degradable

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)	
Persistence and degradability	Biodegradability in water: no data available.

Sodium carbonate (497-19-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Lithium chloride (7447-41-8)	
Persistence and degradability	Biodegradability in soil: not applicable, Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Ferric ammonium citrate (1185-57-5)	
Persistence and degradability	Readily biodegradable in water.

Esculin (531-75-9)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)	
Bioaccumulative potential	No bioaccumulation data available.

Sodium carbonate (497-19-8)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-6.19 Source: Quantitative Structure Activity Relation

Lithium chloride (7447-41-8)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Estimated value, KOWWIN, 20 °C)

Ferric ammonium citrate (1185-57-5)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-0.737 (Calculated, 25 °C)

Esculin (531-75-9)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-1.71

12.4. Mobility in soil

Sodium carbonate (497-19-8)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for adsorption in soil.

Lithium chloride (7447-41-8)	
Surface tension	No data available (test not performed)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

Ferric ammonium citrate (1185-57-5)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

TDG
Not regulated

DOT
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]

Not applicable

SECTION 15 Regulatory information

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)

Listed on the Canadian DSL (Domestic Substances List)

Sodium carbonate (497-19-8)

Listed on the Canadian DSL (Domestic Substances List)

Lithium chloride (7447-41-8)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags	Significant New Activity (SNAc) provisions of the Act apply

Ferric ammonium citrate (1185-57-5)

Listed on the Canadian DSL (Domestic Substances List)

Esculin (531-75-9)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags	Significant New Activity (SNAc) provisions of the Act apply

Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9005-65-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Sodium carbonate (497-19-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Lithium chloride (7447-41-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Ferric ammonium citrate (1185-57-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active **Listed on INSQ (Mexican National Inventory of Chemical Substances)**

Esculin (531-75-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

SECTION 16 Other Information

Issue date : 05-13-2025

Full text of hazard classes and H-statements:	
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H362	May cause harm to breast-fed children
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.