

SAFETY DATA SHEET

Regulation (EC) No. 1907/2006 (REACH) &
1272/2008 (CLP)

GEOGARD™ ECT

Version 3.0

Modified Date 21.09.2020

Issue Date 22.09.2020

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

1.1 Product identifier

Product name : PRESERVATIVE ECO / GEOGARD™ ECT

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

Use of the Substance/Mixture : Cosmetic additive. Use in accordance with Lonza`s recommendations, concentrations of 0.6-1.0% for Geogard® ECT

1.3 Details of the supplier of the safety data sheet

Company : Soap and More
3830 - 7 St. SE,
Calgary AB
T2G 2Y8
Canada
Telephone 1 403 217-2346

E-mail address : soapandmoreab@gmail.com

Responsible/issuing person

1.4 Emergency telephone number

Emergency telephone number : **(613)-996-6666 CANUTEC 24 HOUR EMERGENCY**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :   

Signal word : Danger

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.
H318 Causes serious eye damage.
H361d Suspected of damaging the unborn child.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.

**GEOGARD™ ECT**

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

Benzyl alcohol
Salicylic acid

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Components**

Chemical name	CAS-No. EC-No. Index-No. REACH Registration Number	Classification	Concentration (% w/w)
Benzyl alcohol	100-51-6 202-859-9 603-057-00-5 01-2119492630-38-XX XX	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Irrit. 2; H319	>= 77 - < 86
Salicylic acid	69-72-7 200-712-3 01-2119486984-17-XX XX	Acute Tox. 4; H302 Eye Dam. 1; H318 Repr. 2; H361d	>= 8 - < 15
Hexa-2,4-dienoic acid (Sorbic Acid)	110-44-1 203-768-7	Eye Irrit. 2; H319 STOT SE 3; H335	>= 1 - < 4
Substances with a workplace exposure limit :			
Glycerol	56-81-5 200-289-5		>= 3 - < 5

For explanation of abbreviations see section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

If inhaled : Move to fresh air.
Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
If breathing is irregular or stopped, administer artificial

- respiration.
Keep respiratory tract clear.
- In case of skin contact : After contact with skin, wash immediately with plenty of soap and water.
If on clothes, remove clothes.
In the case of skin irritation or allergic reactions see a physician.
- In case of eye contact : Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.
Remove contact lenses.
Keep eye wide open while rinsing.
Protect unharmed eye.
Continue rinsing eyes during transport to hospital.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Heating or fire can release toxic gas.
Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
- Further information : Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.



GEOGARD™ ECT

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.
Use respirator when performing operations involving potential exposure to vapour of the product.

6.2 Environmental precautions

- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed. Keep in a well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards. To maintain product quality, do not store in heat or direct sunlight. To prevent leaks or spillages from spreading, provide a suitable liquid retention system.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No information available.

**GEOGARD™ ECT****SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Glycerol	56-81-5	TWA (Mist.)	10 mg/m ³	EH40 WEL

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Benzyl alcohol	Consumers	Oral	Short-term exposure, Acute systemic effects	20 mg/kg
	Consumers	Oral	Long-term systemic effects	4 mg/kg
	Consumers	Inhalation	Short-term exposure, Systemic effects	27 mg/m ³
	Consumers	Inhalation	Long-term systemic effects	5,4 mg/m ³
	Workers	Inhalation	Short-term exposure, Systemic effects	110 mg/m ³
	Workers	Inhalation	Long-term systemic effects	22 mg/m ³
	Workers	Dermal	Short-term exposure, Systemic effects	40 mg/kg
	Workers	Dermal	Long-term systemic effects	8 mg/kg
	Consumers	Dermal	Long-term systemic effects	5,7 mg/kg
	Consumers	Dermal	Acute systemic effects	28,5 mg/kg
Glycerol	Workers	Inhalation	Long-term local effects	56 mg/m ³
	Consumers	Oral	Long-term systemic effects	229 mg/kg
	Consumers	Inhalation	Long-term local effects	33 mg/m ³

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value	
Benzyl alcohol	Soil	0,456 mg/kg	
	Sewage treatment plant	39 mg/l	
	Marine sediment	0,527 mg/kg	
	Marine water	0,1 mg/l	
	Fresh water sediment	5,27 mg/kg	
	Fresh water	1 mg/l	
	Intermittent use/release	2,3 mg/l	
	Glycerol	Fresh water	0,885 mg/l
		Marine water	0,088 mg/l
		Intermittent use/release	8,85 mg/l
Fresh water sediment		3,3 mg/kg	
Marine sediment		0,33 mg/kg	
	Soil	0,141 mg/kg	
	Sewage treatment plant	1000 mg/l	

8.2 Exposure controls**Personal protective equipment**

Eye protection

: Safety glasses with side-shields conforming to EN166
Wear face-shield and protective suit for abnormal processing

**GEOGARD™ ECT**

	problems.
Hand protection	
Material	: Nitrile rubber
Remarks	: Wear protective gloves. Break through time : > 480 min The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place. Impervious clothing
Respiratory protection	: In the case of vapour formation use a respirator with an approved filter. Respirator with ABEK filter. Respirator with a vapour filter (EN 141)

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	: clear
Colour	: light yellow
Odour	: characteristic
Odour Threshold	: no data available
pH	: no data available
Melting point/freezing point	: no data available
Boiling point/boiling range	: 245 °C
Flash point	: 132 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: no data available
Density	: 1,05 - 1,15 g/cm ³
Bulk density	: no data available



GEOGARD™ ECT

Solubility(ies)	
Water solubility	: slightly soluble
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Decomposition temperature	: no data available
Viscosity	
Viscosity, dynamic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

9.2 Other information

Minimum ignition energy	: no data available
Self-ignition	: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : Heat

10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases
Oxidizing agents

10.6 Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : Acute toxicity estimate: 1 431 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 1,74 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

**GEOGARD™ ECT**

Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit): estimated > 2 000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Remarks: no data available

Serious eye damage/eye irritation

Remarks: no data available

Respiratory or skin sensitisation

Remarks: no data available

Germ cell mutagenicity

Genotoxicity in vitro : Remarks: no data available

Carcinogenicity

Remarks: no data available

Reproductive toxicity

Effects on fertility : Remarks: no data available

STOT - single exposure

Remarks: no data available

STOT - repeated exposure

Remarks: no data available

Aspiration toxicity

No aspiration toxicity classification

Further information

Remarks: no data available

The following toxicological data refer to:**Benzyl alcohol** (CAS-No.: 100-51-6)**Acute toxicity**

Acute oral toxicity : LD50 (Rat, male): 1 620 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4,178 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity



GEOGARD™ ECT

Acute dermal toxicity : LD50 (Rabbit): 2 000 mg/kg
Assessment: The component/mixture is minimally toxic after single contact with skin.
Remarks: Literary reference

Skin corrosion/irritation

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation

Serious eye damage/eye irritation

Species: Rabbit
Method: OECD Test Guideline 405
Result: Irritation to eyes, reversing after 7 to 21 days

Respiratory or skin sensitisation

Test Type: Magnusson & Kligman
Species: Guinea pig
Result: not sensitizing
Remarks: Literary reference

Germ cell mutagenicity

Genotoxicity in vitro

- : Test Type: Ames test
Result: negative
- : Test Type: gene mutation test
Species: mouse lymphoma cells
Result: equivocal
- : Test Type: Chromosome aberration test in vitro
Result: positive

Genotoxicity in vivo

- : Test Type: In vivo micronucleus test
Species: Mouse
Application Route: ip
Dose: 50 -100-200 mg/kg
Result: negative

Reproductive toxicity

Effects on fertility

- : Species: Mouse, female
Application Route: Oral
Dose: 10d
Fertility: NOAEL: 550 mg/kg food

Further information

Remarks: May cause sensitisation of susceptible persons by skin contact.

Remarks: Dermal absorption possible

**GEOGARD™ ECT**

Remarks: High concentration of vapours may induce unconsciousness.

Salicylic acid (CAS-No.: 69-72-7)**Acute toxicity**

- Acute oral toxicity : LD50 (Rat): 891 mg/kg
- Acute inhalation toxicity : LC50 (Rat): > 0,9 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rat): > 2 000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity, Not classified due to inconclusive data.
- LD50 (Rabbit): > 10 000 mg/kg

Skin corrosion/irritation

Species: Rabbit
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Species: Rabbit
Assessment: Risk of serious damage to eyes.
Result: Severe eye irritation

Germ cell mutagenicity

- Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Metabolic activation: yes
Result: negative

SECTION 12: Ecological information**12.1 Toxicity**

- Toxicity to fish : Remarks: no data available

12.2 Persistence and degradability

- Biodegradability : Remarks: no data available

12.3 Bioaccumulative potential

- Bioaccumulation : Remarks: no data available



GEOGARD™ ECT

12.4 Mobility in soil

Distribution among environmental compartments : Remarks: no data available

12.5 Results of PBT and vPvB assessment

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Additional ecological information : no data available

The following ecotoxicological data refer to:

Benzyl alcohol (CAS-No.: 100-51-6)

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 646 mg/l
Exposure time: 48 h
Method: DIN 38412 Part 15
- LC50 (Pimephales promelas (fathead minnow)): 460 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 230 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae : IC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- NOEC (Pseudokirchneriella subcapitata (green algae)): 310 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- ErC50 (Pseudokirchneriella subcapitata (green algae)): 700 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 51 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
- Toxicity to microorganisms : EC50 (Pseudomonas putida): 658 mg/l
Exposure time: 16 h
Remarks: Literary reference
- : EC50 (Photobacterium phosphoreum): 71 mg/l
Exposure time: 30 min
Remarks: Literary reference

**GEOGARD™ ECT**

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 95 - 97 % Exposure time: 21 d Method: OECD Test Guideline 301A
		Result: Readily biodegradable. Biodegradation: 92 - 96 % Exposure time: 14 d Method: OECD Test Guideline 301C
Bioaccumulation	:	Bioconcentration factor (BCF): 4 Remarks: Literary reference Does not bioaccumulate.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product	:	Dispose of contents/container in accordance with local regulation. Contact waste disposal services. Do not dispose of waste into sewer.
Contaminated packaging	:	Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

IATA Not dangerous goods

14.1 UN number	:	Not applicable
14.2 Proper shipping name	:	Not applicable
14.3 Transport hazard class	:	Not applicable
14.4 Packing group	:	Not applicable
14.5 Environmental hazards	:	no

IMDG Not dangerous goods

14.1 UN number	:	Not applicable
14.2 Proper shipping name	:	Not applicable
14.3 Transport hazard class	:	Not applicable
14.4 Packing group	:	Not applicable
14.5 Environmental hazards	:	Marine pollutant: no

ADR Not dangerous goods

14.1 UN number	:	Not applicable
14.2 Proper shipping name	:	Not applicable
14.3 Transport hazard class	:	Not applicable
14.4 Packing group	:	Not applicable
14.5 Environmental hazards	:	no

**GEOGARD™ ECT**

RID : Not dangerous goods

14.1 UN number : Not applicable
14.2 Proper shipping name : Not applicable
14.3 Transport hazard class : Not applicable
14.4 Packing group : Not applicable
14.5 Environmental hazards : no

DOT : Not dangerous goods

14.1 UN number : Not applicable
14.2 Proper shipping name : Not applicable
14.3 Transport hazard class : Not applicable
14.4 Packing group : Not applicable
14.5 Environmental hazards : no

TDG : Not dangerous goods

14.1 UN number : Not applicable
14.2 Proper shipping name : Not applicable
14.3 Transport hazard class : Not applicable
14.4 Packing group : Not applicable
14.5 Environmental hazards : no

14.6 Special precautions for user : none

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

National regulatory information

Water contaminating class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

15.2 Chemical safety assessment

no data available

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H361d	:	Suspected of damaging the unborn child.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Repr.	:	Reproductive toxicity
STOT SE	:	Specific target organ toxicity - single exposure
EH40 WEL	:	UK. EH40 Workplace Exposure Limits (WELs), as amended

Classification of the mixture:

Acute Tox. 4	H302
Acute Tox. 4	H332
Eye Dam. 1	H318
Repr. 2	H361d

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method

Further information

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE - Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR – Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL - Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG – Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental

GEOGARD™ ECT



Annex

Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

Date format : dd.mm.yyyy

GB / EN

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.