MINASOLVE
BIO-INGREDIENTS FOR YOUR APPLICATIONS

Regulatory Data Sheet
March 2019 – V6

Pentiol

I- GENERAL INFORMATION

Trade name: Pentiol

INCI name: **Pentylene Glycol**

Function: Humectant, solvent, skin-conditioner, anti-microbial agent

Supplier: Minasolve S.A.S
145, Chemin des Lilas
59310 Beuvry-la-Forêt, France
+33 3 20 64 3001

II- REGULATORY INFORMATION

1- Regulatory status for cosmetic application

EUROPE **(European Cosmetic Regulation (EC) No 1223/2009)**	Approved
U.S.A. **(FD&C Act— 21 CFR 700 to 740)**	Approved
CANADA **(Food and Drugs Act and Cosmetic Regulations)**	Approved
AUSTRALIA **(Notification & Assessment Act 1989, as amended—TGA)**	Approved
JAPAN **(Pharmaceutical Affairs Law - regulations for cosmetics)**	Approved
KOREA **(Cosmetics Law - Korea Food & Drug Administration KFDA)**	Approved
CHINA **(IECIC 2015)**	Approved

2- Regulatory compliance

EU (EINECS)	USA (TSCA)	CANADA (DSL/NDSL/ R-ICL)	AUSTRALIA (AICS)	CHINA (IECSC)	JAPAN (ENCS)	KOREA (KECI/ECL)	NEW ZEALAND (NZIoC)
Listed	Listed	NDSL + R-ICL	Listed	Listed	Listed	Listed	Listed

3- REACH requirements

Component	REACH Status	Registration N°
Pentylene Glycol	Registered	01-2119491291-39

Presence of SVHC: YES ☐ NO ☒

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III- PRODUCT COMPOSITION

1- Composition (%)

Substance	%	INCI name	CAS n°	EC n°
1	100	Pentylene Glycol	5343-92-0	226-285-3

2- Impurities

	YES	NO
Phthalates	☐	☒
Glycol Ethers	☐	☒
Residual Monomers	☐	☒
Latex	☐	☒

3- Allergens

CAS n°	Substances (INCI name)	YES	NO	%
122-40-7	Amyl cinnamal	☐	☒	
100-51-6	Benzyl alcohol	☐	☒	
104-54-1	Cinnamyl alcohol	☐	☒	
5392-40-5	Citral	☐	☒	
97-53-0	Eugenol	☐	☒	
107-75-5	Hydroxycitronellal	☐	☒	
97-54-1	Isoeugenol	☐	☒	
101-85-9	Amylcinnamyl alcohol	☐	☒	
118-58-1	Benzyl salicylate	☐	☒	
104-55-2	Cinnamal	☐	☒	
91-64-5	Coumarin	☐	☒	
106-24-1	Geraniol	☐	☒	
31906-04-4	Hydroxyisohexyl 3-cyclohexene carboxaldehyde	☐	☒	
105-13-5	Anise alcohol	☐	☒	
103-41-3	Benzyl cinnamate	☐	☒	
4602-84-0	Farnesol	☐	☒	
80-54-6	Butylphenyl methylpropional	☐	☒	
78-70-6	Linalool	☐	☒	
120-51-4	Benzyl benzoate	☐	☒	
106-22-9	Citronellol	☐	☒	
101-86-0	Hexyl cinnamal	☐	☒	
5989-27-5	Limonene (d-alpha)	☐	☒	
111-12-6	Methyl 2-octynoate	☐	☒	
127-51-5	Alpha-isomethyl ionone	☐	☒	
90028-68-5	Evernia Prunastri (Oakmoss)extract	☐	☒	
90028-67-4	Evernia Furfuracea (Treemoss) extract	☐	☒	

4- VOC

Presence of chemical ingredients which are classified as VOC: YES ☐ NO ☒

5- CMR

Substance classified as CMR: YES ☐ NO ☒

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IV- ORIGIN

1- Vegetal ☐
Plant's usual name:
Plant part used:
GMO presence: YES ☐ NO ☐

2- Synthetic ☒

3- Biotechnology ☐
Microorganisms used:

4- Animal ☐
Absence of BSE/TSE:

5- Mineral ☐
Process for obtaining it:
Nanomaterial:

6- Naturalness
Ingredient Ecocert certified: YES ☐ NO ☒
Ingredient COSMOS approved: YES ☐ NO ☒
Ingredient compliant with Natrue: YES ☐ NO ☒

Naturality Index (ISO 16128)	**Natural index**	**Natural origin index**	**Organic index**	**Organic origin index**
With/without water	0/0	0/0	0/0	0/0

V- PHYSICO-CHEMICAL DATA

See TDS – Available upon request

VI- MICROBIOLOGICAL DATA
Pentylene Glycol is regarded as anti-microbial agent due to its ability of disturbing the integrity of microbial cell-membranes or cell walls. Furthermore, its strong hygroscopic effect lowers the water activity to a minimum, which additionally limits the survival rate of microorganisms. The presence of living pathogenic germs inside Pentiol can therefore be excluded.

VII- USE AND STORAGE CONDITIONS

See MSDS, chapters 7 and 8 – Available upon request

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VIII- TOXICOLOGICAL DATA

1- Toxicological data

TESTS	DATA
Acute Toxicity	**Oral** (OECD 401, rat): **LD_{50}** > *5000mg/kg bw* **Inhalation** (OECD 403, rat, 4h): **LC_{50}** >*7015 mg/m³ air* **Dermal** (OECD 402, rat, 24 h): **LD_{50}** > *2000 mg/kg*
Skin penetration	*No data available*
Irritation eye/skin	**Eye** (OECD 405): *Irritating* **Skin** (OECD 404): *Not irritating*
Skin sensitization	**HRIPT**: *Negative* Repeated applications of undiluted Pentylene Glycol, under occlusive patch (9 consecutive applications within 30 days, Finn Chamber, 20 µl per patch), on a panel of 101 subjects - 35 of which with sensitive skin - induced no irritation and no allergic reaction on skin.
Mutagenicity	**AMES test:** *Negative* **Chromosome aberration:** *Negative*
Genotoxicity	**Oral** (OECD 422, rat): **NOAEL** = *1000 mg/kg bw/day*
Repeated dose toxicity	**Dermal** (OECD 411, rat) **NOAEL** rat = *700 mg/kg bw/day*
Reproductive toxicity	*No effects on reproduction*
	No effects on development
Phototoxicity	*No data available*

2- Ecotoxicological data

TESTS	DATA
Bioaccumulative potential	**Log P =** 0.06 at 25°C => *Accumulation in organisms is not expected*
Solubility in water	Miscible with water
Acute aquatic ecotoxicity	**OECD 203** (96 hours, Zebra fish): **LC_{50}** >1096 mg/L **EU Directive 79/831/EWG Appendix V** (48 hours, Daphnia magna): **EC_{50}** > 500mg/L
Biodegradation	**OECD 301E:** *Readily biodegradable, but failing 10-day window*
Volatization from water	**Henrys Law Constant (25 deg C):** **Bond Method:** 3.06E-007 atm-m3/mole **Group Method:** 2.62E-010 atm-m3/mole *Predicted by software HENRYWIN v3.10)*
Mobility in soil	**Adsorption coefficient:** **Koc =** 1 => *Adsorption in soil is not expected* *(Predicted by software EPIWin)*

3- Animal testing

Animal testing performed/subcontracted by Minasolve on this material: YES ☐ NO ☒

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