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PANGAEA LABORATORIES LTD.

TOXICOLOGICAL ASSESSMENT

Product:	Nanofibres
Customer:	Nanogen
Pangaea Ref:	
Date:	10/09/2010

A. CONSUMER EXPOSURE ASSESSMENT

Product class:	Hair Thickener/ Hair loss concealer
Physical form:	Dry fibres
Amount used <i>per</i> application:	0.5 – 3g
Part of body exposed to undiluted product:	Hands, wrists and neck
Frequency of exposure to undiluted:	Once per day
Time of exposure to undiluted product:	Leave on
Dilution Factor:	N/A
Part of body exposed to diluted product:	N/A
Frequency of exposure to diluted product:	N/A
Time of exposure to the diluted product:	N/A

B. PRODUCT SPECIFICATION

APPEARANCE:	Dry powder – various colours
ODOUR:	N/A
pH:	N/A
TVC:	N/A

C. RAW MATERIAL TOXICOLOGICAL SUMMARY/ CAS/ EINECS NUMBERS TABLE

INCI NAME	CON %	TOXICOLOGICAL SUMMARY (for concentrations used)	EU Registration Status	CAS No:	EINECS No:
Keratin	81.62%	Non hazardous		68238-35-7	269-409-1
Sodium C12-15 Alkyl Sulphate	2.00%	Non hazardous		68890-70-0	272-575-8
Soyamidopropyl Betaine	2.00%	Non hazardous		-	-
Stearic Acid	1.80%	Non hazardous		57-11-4	200-313-4
Oleyl Betaine	1.02%	Non hazardous		871-37-4	212-806-1
Silica	1.00%	Non hazardous		7631-86-9 / 112945-52-5 / 60676-86-0	231-545-4 / 262-373-8
Ceramide 1	1.00%	Non hazardous		100403-19-8	309-560-3
PTFE	1.00%	Non hazardous		9002-84-0	-
Ethylhexyl Palmitate	1.00%	Non hazardous		29806-73-3	249-862-1
Lecithin	0.90%	Non hazardous		8002-43-5	232-307-2
Polysorbate 20	0.99%	Non hazardous		9005-64-5	-
Benzophenone-3	0.98%	Non hazardous	Maximum 10%	131-57-7	205-031-5
Polyquaternium-22	0.90%	Non hazardous		53694-17-0	-
Propanediol	0.90%	Non hazardous		504-63-2 / 26264-14-2	207-997-3
Polyquaternium-95	0.80%	Non hazardous		-	-
Mica	0.99%	Non hazardous		12001-26-2	-
Polyacrylate-15	0.90%	Non hazardous		67892-91-5	-
EDTA	0.20%	Non hazardous		60-00-4	200-449-4
CI 15985 (FD&C Yellow No.6)	< 0.01%	Non hazardous in this application as it is not used to dye hair		2783-94-0	220-491-7
CI 19140 (FD&C Yellow No.5)	<0.01%	Non hazardous in this application as it is not used to dye hair		1934-21-0	217-699-5

CI 16035 (FD&C Red No.40)	< 0.01%	Non hazardous in this application as it is not used to dye hair		25956-17-6	247-368-0
CI 45380 (D&C Red No.22)	< 0.01%	Non hazardous in this application as it is not used to dye hair		17372-87-1	241-409-6
CI 17200 (D&C Red No.33)	< 0.01%	Non hazardous in this application as it is not used to dye hair		3567-66-66	222-656-9
CI 61570 (D&C Green No.5)	< 0.01%	Non hazardous in this application as it is not used to dye hair		4403-90-1	224-546-6
CI 42053 (FD&C Green No.3)	< 0.01%	Non hazardous in this application as it is not used to dye hair		2353-45-9	219-091-5
CI 61565 (D&C Green No.6)	< 0.01%	Non hazardous in this application as it is not used to dye hair		128-80-3	204-909-5
CI 42090 (FD&C Blue No.1)	< 0.01%	Non hazardous in this application as it is not used to dye hair		3844-45-9	223-339-8
CI 15510 (D&C Orange No.4)	< 0.01%	Non hazardous in this application as it is not used to dye hair		633-96-5	211-199-0

D. FINISHED PRODUCT

Overall Toxicity Rationale:

This product will be mild to the skin, since most of the ingredients are present at low concentrations and have low irritation potential.

Effects on the Skin of the Product as Supplied:

The formulation as supplied is unlikely to cause skin irritation. Under normal conditions of use the likelihood of causing skin irritation will be very low.

Prolonged and/ or repeated skin contact with the formulation as supplied is unlikely to cause damage to internal organs.

Repeated exposure to the formulation as supplied is unlikely to produce allergy by skin contact.

Effects on the Skin, of the Product as Diluted for Use:

N/A

Effects on the Eye of the Product as Supplied:

Accidental exposure of the eye to the formulation as supplied may result in slight eye irritation.

Effect on the Eye, of the Product as Diluted for Use:

N/A

Effects of Ingestion of the Product as Supplied:

N/A

Effects of Ingestion of the Product as Diluted for Use:

Accidental ingestion of the formulation as supplied may cause slight nausea.

Effects of Inhaling the Product:

This is a non-volatile product, and as such inhalation is an unlikely route of exposure.

Overall Product Safety Statement

The ingredients are legally permitted as per the EU Directive 76/768/EEC and its subsequent amendments.

Under conditions of use and foreseeable misuse, this formulation is unlikely to produce an abnormally high number of adverse reactions. The product will give consumers the level of safety they can reasonably expect.

Safety Assessor:

Date: 13/9/2010

Elliot Isaacs BSc (Hons) Human Physiology (per Pharmacology). Society of Cosmetic Scientists
For and on behalf of Pangaea Laboratories Ltd. 58 Crewys Road, London, NW2 2AD