

The dermis

- Thicker layer under the epidermis
- Mostly consists of connective tissue
- Contains blood vessels, lymphatic vessels and nerve fibres.
- Provides much of the skin's strength
- Plays major role in controlling our body temperature.
 - Expansion or cooling of blood vessels to allow or prevent heat loss
- Provides sensitivity to the environment

Moisturization

- Scientifically, the moisturizing treatment involves a 4-step process:
 - Repairing the skin barrier
 - Increasing water content
 - Reducing transepidermal water loss
 - Restoring the lipid's water barrier function

Preview from Notesale.co.uk
Page 13 of 56

Humectants

- Chemically, all humectants have something in
- common: hydroxyl groups participate in hydrogen bonding with water
- Humectants include:
 - Glycerin
 - Sorbitol
 - Propylene glycol
 - hexylene and butylene glycol
 - MP Diol,
 - Urea
 - alpha hydroxy acids (e.g., lactic acid)

Hexylene and Butylene Glycol

- Both compounds are often used in emulsions designed for facial applications due to their non-sticky skin feel.
- When employed in makeup emulsions, they can reduce streaking
- Their relatively high cost has limited their usage.

sunscreens

- These products are useful in the prevention of sunburns as well as in reducing the long term damage that sun exposure can cause with its concomitant skin cancer and wrinkle producing properties.
- Sunscreen is particularly important in children, as 85% of all sun exposure occurs before the age of 18.
- Sunscreens come with a number called the sun protection factor, or SPF
- Recommendations in the 15 to 30 range are ideal.
- If a sunscreen has a label of a 15 SPF, then with its use over a 15-hour period, the skin will have absorbed only 1 hour's worth of ultraviolet light.
- The active ingredients for most sunscreens are one of the following: PABA and PABA esters, Benzophenones, Cinnamates, Salicylates, and Anthranilate.
- Other agents which block the sun include zinc oxide, titanium oxide, magnesium silicate, kaolin, ferric oxide, red petrolatum, and magnesium oxide.
- A combination agent which contains zinc oxide is the best.

Zinc oxide

- White powder used in skin ointments for ultraviolet protection and diaper rash treatment. Also used for its skin-cleansing properties.

Preview from Notesale.co.uk
Page 29 of 56

ANNEX VII — PART 1

List of permitted UV filters which cosmetic products may contain

Reference number	Substance	Maximum authorised concentration
a	b	
1	4-Aminobenzoic acid	5 %
2	N,N,N-Trimethyl-4-(2-oxoborn-3-ylidenemethyl)anilinium methyl sulphate	6 %
3	Homosalate (INN)	10 %
4	Oxybenzone (INN)	10 %
6	2-Phenylbenzimidazole-5-sulphonic acid and its potassium, sodium and triethanolamine salts	6 % (expressed as acid)
7	3,3'-(1,4-Phenylenedimethylene) bis [7,7-dimethyl-2-oxobicyclo-(2,2,1) hept-1-ylmethanesulphonic acid] and its salts	10 % (expressed as acid)
8	1-(4-tert-Butylphenyl)-3-(4-methoxyphenyl) propane-1,3-dione	5 %
9	alpha-(2-Oxoborn-3-ylidene)-toluene-4-sulphonic acid and its salts	6 % (expressed as acid)
10	2-cyano-3,3-diphenyl acrylic acid, 2-ethylhexyl ester (Octocrylene)	10 % (expressed as acid)
11	Polymer of N-((2 and 4)-(2-oxoborn-3-ylidene)methyl)benzyl)acrylamide	6 %
12	Octyl methoxycinnamate	10 %
13	Ethoxylated Ethyl-4-Aminobenzoate (PEG-25 PABA)	10 %

(1) Not required if concentration is 0.5 % or less and when it is used only for product protection purposes.

UV filters

Preview from Notesale.co.uk
Page 31 of 56

Wheatgerm oil

- **Wheatgerm Oil (Triticum aestivum)**
- This oil has a nutty aroma and is extracted by pressing or solvent extraction from the wheat "germ."
- It is a valuable source of Vitamin E, a natural antioxidant, and is more resistant to light and heat than vegetable oils.
- It helps relieve dermatitis symptoms, promotes skin cell formation, and improves blood circulation.
- Wheatgerm Oil is used to prevent and reduce scarring and speeds up healing of cuts and wounds.

Emulsifiers

- Added to make the aqueous phase and the oil phase ingredients mix
- Emulsifiers are surfactants
- Many types
- To be discussed in study of emulsions

Preview from Notesale.co.uk
Page 43 of 56