LIST OF ABREVIATIONS

3T3 NRU PT Neural red uptake phototoxicity test using mouse fibroblast cell line 3T3

ATCC American Type Culture Collection

BMBF German Ministry of Education and Research

BM-DBM Butyl methoxy-dibenzoylmethane

BfR Federal Institute for Risk Assessment

CER Ceramides
CEREB Cerebrosides
CHOL Cholesterol

CHOL SO₄ Cholesterol sulphate

CPZ Chlorpromazine

CV Coefficient of variation

COLIPA Cosmetic Toiletry and Perfumery Association

DMEM Dulbecco's Modified Eagle's Medium

DMSO Dimethyl sulphoxide

ECVAM European Centre for Validation of Alternative Methods

ELISA Enzyme-linked immuno-sorbent assay

EMEA European Medicine Evaluation Agency

EtOH Ethanol

ESAC ECVAM Scientific Advisory Committee

ET 50 Time-point at which viability of cells (tissues) is reduced to 50 %

FFA Free fatty acids

GLM General linear model

H&E Hematoxylin-Eosin

H3D PT Human skin model phototoxicity test

HP TLC High performance thin layer chromatography

IC 50 Concentration at which viability of cells (tissues) is reduced to 50 %

IL Interleukin
Irr + Irradiated

Irr - Non-irradiated
MPE Mean photo-effect

MTT 3-(4, 5-dimethylthiazolyl-2)-2, 5-diphenyltetrazolium bromide

NBCS New-born calf serum

NC Negative control

NR Neutral Red (3-amino-7-dimethylamino-2-methylphenazine

hydrochloride)

OD Optical density

OD₅₇₀ Optical density measured at 570 nm

OECD Organisation for Economic Co-operation and Development

OECD TG OECD Test guideline

PBS Phosphate-buffered saline

PC Positive control

PIF Photo irritation factor

RHE Reconstructed human epidermis

ROS Reactive oxidative species

SB Stratum basale
SC Stratum corneum
SD Standard deviation

SDS Sodium dodecyl sulphate

SG Stratum granulosum

SL Stratum lucidum

SOP Standard Operating Procedure

SS Stratum spinosum

TG Triglycerides

TER Transcutaneous electrical resistance
TEER Transepidermal electrical resistance

TEWL Trans-epidermal water loss

UV Ultraviolet

UVA Part of the UV light (320-400nm)

+ UVA Irradiated by UVA

- UVA Non-irradiated by UVA

ZEBET Centre for Documentation and Evaluation of Alternative Methods to

Animal Experiments

kΩ kiloOhm # Number