

## Evaluation Report for Category B, Subcategory 2.1 Application

**Application Number:** 2021-0595  
**Application:** New End-use Product (Product Chemistry) - Guarantee  
**Product:** Termilight Rolling T  
**Registration Number:** 34511  
**Active ingredients (a.i.):** Device generating ultraviolet C (wavelength 280-100 nm)  
**PMRA Document Number:** 3348412

### Purpose of Application

The purpose of this application was to register a new ultraviolet light-emitting device, Termilight Rolling T. This product was developed as a portable solution to quickly sanitize contaminated surfaces from high traffic areas such as nursing homes, medical offices, schools, airports and shopping centers.

### Chemistry Assessment

A chemistry assessment was not required for this application.

### Health Assessments

Potential sites of exposure to ultraviolet light C (UVC) include the eyes and skin. The main acute skin lesion from exposure to ultraviolet radiation (UVR) is erythema or sunburn. Erythema can be induced by ultraviolet light (including UVC) and the wavelength of light, skin type, and skin pigmentation all influence whether it will occur. Other acute skin responses to ultraviolet light include tanning and photosensitivity. The principal acute effects of UVR on the eye are photokeratitis (inflammation of the cornea) and photoconjunctivitis (inflammation of the conjunctiva). Damage to skin cells can increase the rate of aging of the skin or cause skin cancer. Chronic UVR exposure is believed to be at least one of the causative factors in the development of cataracts. The most important cellular target for UVR is DNA, which has an absorption peak in the UVC spectrum at 260 nm. It is generally accepted that UVC radiation is a cause of carcinogenicity in mammals.

The risks to users and bystanders are acceptable when Termilight Rolling T is used according to label directions. Precautionary and direction for use statements on the product label, as well as the design of the device (i.e., remote activation of the device and infrared sensors that trigger deactivation of the device if motion is detected), aimed at mitigating occupational and bystander exposure are considered adequate to protect individuals from any potential risk due to exposure.

There is no potential for residential exposure as the product is for commercial use in institutions.

## **Environmental Assessment**

An environmental assessment was not required for this application.

## **Value Assessment**

Termilight Rolling T will serve as a portable UV device capable of sanitizing contaminated hard, non-porous surfaces. One study using the proper representative bacterial species was submitted that demonstrated at a distance of 1 meter, the Termilight Rolling T was able to kill  $\geq 99.9\%$  of bacteria on hard, non-porous surfaces after an exposure time of twelve minutes.

## **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of Termilight Rolling T.

## References

### List of Studies/Information Submitted by Registrant

<b>PMRA Document Number</b>	<b>Reference</b>
3282326	2021, ASTM E3135: Standard Practice for Determining Antimicrobial Efficacy of Ultraviolet Germicidal Irradiation Against Microorganisms on Carriers with Simulated Soil, DACO: 10.2.3.2
3286248	2020, Certificate of Conformity, DACO: 10.6
3321028	2022, Use Description Scenario (Application and Post-Application), DACO: 5.2
3304367	2021, IEC 62471 Photobiological Safety of Lamps and Lamps Systems, DACO: 10.6

### Additional Information Considered - Published Information

<b>PMRA Document Number</b>	<b>Reference</b>
2559369	International Commission on Non-ionizing Radiation Protection (ICNIRP), 2007, Protecting Workers from Ultraviolet Radiation, ICNIRP in collaboration with ILO and WHO, ICNIRP 14/2007, DACO: 12.5.4

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