

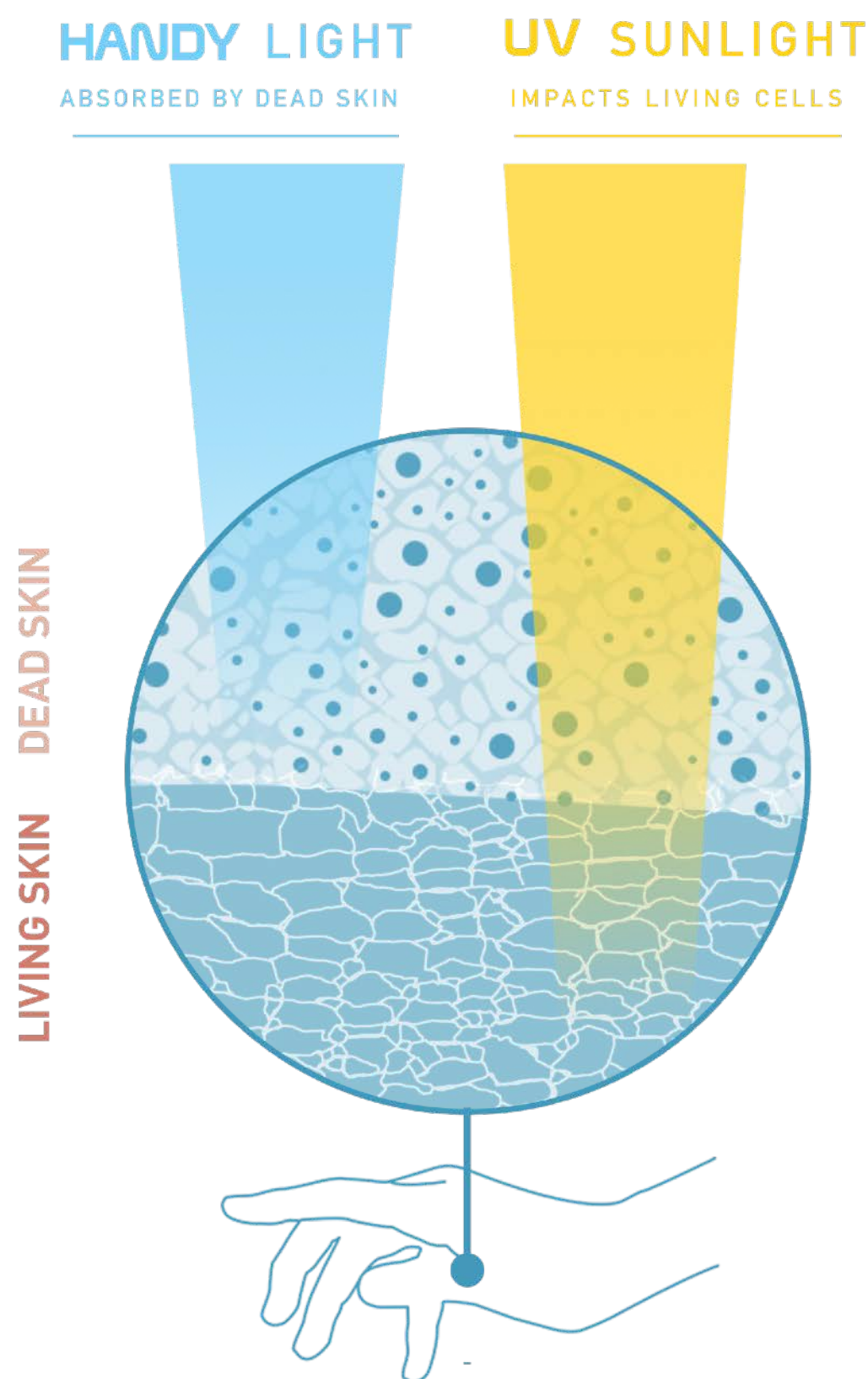
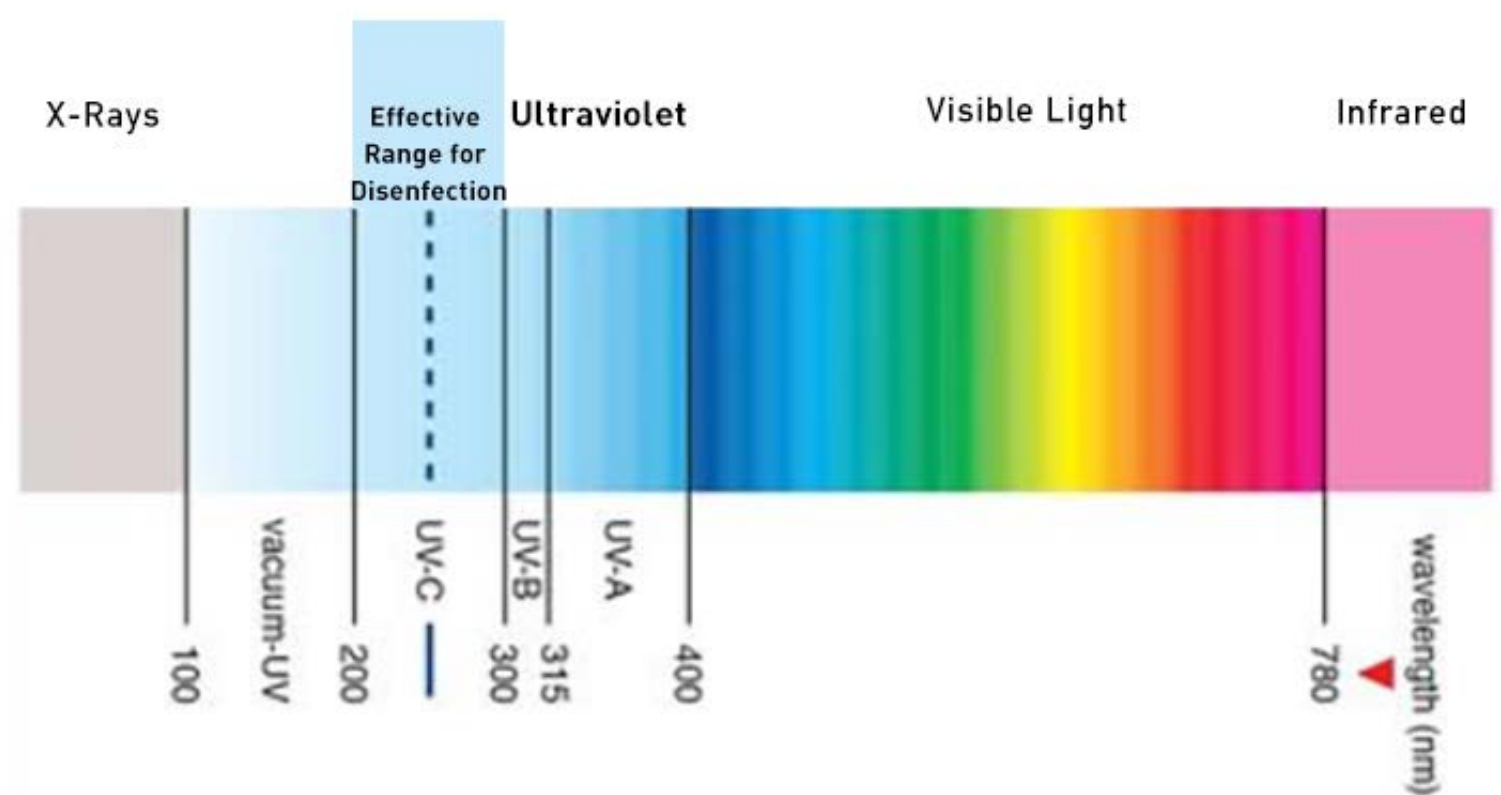
HANDY Enterprises, LLC manufactures and markets HANDY Hand Sanitizing Solutions, a line of products that use Ultraviolet-C (UV-C) lighting to virtually eliminate highly contagious, illness-causing germs and bacteria, including the coronavirus that causes COVID-19.*

HANDY Hand Sanitizers are the first to use germicidal UV-C, a proven and safe technology currently used to efficiently sanitize areas in hospitals and other healthcare settings. HANDY is committed to best-practice hand-hygiene and helps fight the spread of infection wherever people may gather.

* SARS-COV-2 surrogate used in testing

UV-C Safety — Overview

UV-C, part of the UV spectrum that includes UV-A and UV-B, has been used since the late 1800s to kill micro-organisms. Its use proliferated after WWII for sanitizing air in hospitals, food processing plants, beverage production, pharmaceutical plants and animal labs—anywhere microbiological contamination is a concern.



UV-C Safety — Skin

Exposure to UV-A and UV-B can lead to sunburn and skin tanning, due to their penetration of the dermis (UV-A) and epidermis (UV-B) outer skin layers. However, UV-C, with its extremely poor penetrating capability, is nearly completely absorbed by the dead skin layer at the skin surface.

UV-C Safety — Eyes

UV-C radiation in high doses can cause erythema and harm superficial tissues of the eye. Exposure may cause discomfort, but symptoms subside within a short time with no evidence of malignant effects. HANDY is uniquely designed to make unlikely any harm from direct contact.

HANDY’s patent-pending innovative design combines safety and maximum efficacy to reduce the spread of dangerous germs.



HANDY Safety Design Emphasis

HANDY is engineered to balance safety and effectiveness by retaining the germ-killing qualities of UV-C light while minimizing any chances of harm to skin or eyes. HANDY uses UV-C light too weak to penetrate human skin, but powerful enough to sanitize pathogens on the skin's surface.

Using UV-C bulb wavelengths of 200-280 nm, HANDY generates less than half of 1% (0.0242 mJ/cm²) of the threshold limit value (6.0 mJ/cm²) for UV-C exposure, as set by various industry bodies.* HANDY's germ-killing UV-C light loses more than 99.9% of its energy power in the stratum corneum (dead skin surface) before it contacts living cells on the human hand due to its design—short wavelength, low output and brief time exposure (effective at 3-7 seconds).

*American Conference of Governmental Industrial Hygienists Committee on Physical Agents and Intl. Commission on Non-Ionizing Radiation Protection

UV-C Safety — Lamp Design

HANDY's 4 UV-C lamps span the hand slot's length—2 housed in each of the top and lower sections, providing even exposure on all sides. Lamps are recessed from the hand slot surface and hidden behind louvers to prevent unintended eye exposure.

The UV-C lamps are specifically coated to ensure consistent output and effectiveness throughout the bulbs' lives. Lamps are made with glass that filters out the 185 nm ozone-forming radiation.



HANDY UV-C Germicidal Lamp Specifications

UV Bulb Type	UV-C Germicidal
UV Bulb Wavelength	200-280 nm
UV Bulb Strength	Less than 16w
UV Lamp Average Lifespan	10,000 hours
UV Dose	3-7 seconds