Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Genus® LED UV Lamp
Product code:	LED180-100, LED300-102 and variants
Product use:	LED lamps specific to Brandenburg UK Ltd Insect light traps
Document No.:	220501
Date:	23/11/2021

In Europe / UK
Brandenburg UK Ltd
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Hurst Business Park
Brierley Hill
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DY5 1UT

Emergency Telephone Number: +44 (0) 1384 472900
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In the USA
Company: Brandenburg NA
3780 Rider Trail South,
Earth City,
MO 63045
USA

Emergency Telephone Number: +1 314 567 4101

2. UVA SOURCE

Multiple LED lamp assembly

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: No special dangers are known.

POTENTIAL HEALTH HAZARDS:
SKIN: Not anticipated under recommended exposure conditions.

EYES: Not anticipated under recommended exposure conditions.

DELAYED EFFECTS: Over-exposure to the UV radiation in the range 315-400nm from the unit can lead to erythema and elastosis of the skin and eye damage including cornea damage, cataracts and conjunctivitis.

Safety Data Sheet

In the Risk Classification system of IEC / EN 62471 and ANSI IESNA RP 27 (see Section 15 below), measurements of the emitted radiation over the wavelength range 200 to 600nm resulted in the unit being assigned low risk status.

4. FIRST-AID MEASURES: N/A

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: carbon dioxide, dry chemical

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: None

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: none

6. ACCIDENTAL RELEASE MEASURES : N/A

7. HANDLING AND STORAGE

NORMAL HANDLING: No special requirement

STORAGE RECOMMENDATIONS: No special requirement

8. EXPOSURE CONTROL / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT: Not required.

EXPOSURE GUIDELINES/LIMITS: Measurements according to IEC / EN 62471 and ANSI IESNA RP 27 (see Section 15 below) have shown that the unit presents negligible hazard to human skin or eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Individual LEDs assembled on aluminium substrate and heatsink

Chemical Name	Cas No.	Concentration
Aluminium oxide	1334-28-1	<0.01%
Silicone dioxide	14808-60-7	<0.01%
Gallium Nitride	25617-97-4	<0.01%
Gold	7440-57-5	<0.01%
Copper	7440-50-8	0.83%
Nickel	7440-02-0	0.08%
Silver	7440-22-4	0.04%
Polysiloxane	63148-53-8	0.16%
Silver	7440-22-4	<0.01%
Epoxy resin	90598-46-2	<0.01%
steel	65997-19-5	0.75%
Aluminium	7429-90-5	93.40%
Polycarbonate	25037-45-0	4.49%

Safety Data Sheet

10. STABILITY AND REACTIVITY: N/A

11. TOXICOLOGICAL INFORMATION: N/A

12. ECOLOGICAL INFORMATION: N/A

13. DISPOSAL CONSIDERATIONS

Dispose of packaging as solid waste according to local regulations.

Dispose of lamps in accordance with local legislation.

Dispose of the unit with lamps removed in accordance with local legislation.

14. TRANSPORT INFORMATION: No special requirement

15. REGULATORY INFORMATION

In unit testing standards	UL1559 –Insect control equipment
	CAN/CSA-C22 No.60335-1-16 - Household and similar
	EN 60598-2-1:1989 / EN 60598-1:2015;A1 – Lighting
	IECEE (CB) - IEC 60598-2-1:1979, IEC 60598-2-1:1979/AMD1:1987, IEC 60598-1:2014, IEC 60598-1:2014/AMD1:2017
Consumable part standards	BS EN IEC 62031: 2020- Electrical testing
	EN 662471:2008 and IEC/TR 62778:2014 and blue light safety RG1
	IEC 61549: 2003 A2: 2010 Requirements Fragment Retention Lamps and deemed suitable for food industry applications

15. REGULATORY INFORMATION (Cont)

This specifies that at 1m distance, the *Effective Near UV Irradiance** shall not exceed 1mW/sq m. In addition, units put on the market in the EU must comply with the requirements of the EU Directive 2006/25/EC "*The Artificial Optical Radiation Directive"*. Also relevant are IEC/EN 62471 "Photobiological Safety of Lamps and Lamp Systems" and ANSI IESNA RP 27 "Recommended Practice for Photobiological Safety for Lamps – Risk Group Classification".

*The *Effective Near UV Irradiance* is the UVA irradiance weighted at each wavelength according to the adverse effects on human tissue at that wavelength.

The Brandenburg Genus® LEDXXX-XXX lamps meets the US Standard for Safety of Portable Electric Luminaires, UL153 and the Canadian Standard CSA C22.2 No. 12 "Portable Luminaires". These standards relate to mechanical and electrical safety.

16. OTHER INFORMATION

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however, Brandenburg UK Ltd makes no warranty with respect to the accuracy of the information or the suitability of the recommendations and assumes no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of workplace risks as required by other health and safety legislation.