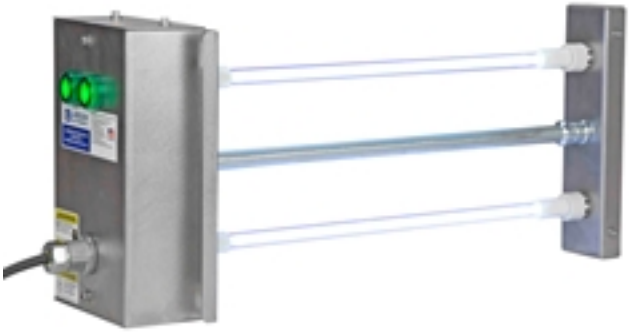
Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364

## IND-HVAC-DTW-UVC-R2-SS-24-3L-220V

# 24" UV Air Duct Disinfection 3-Lamp Fixture - UV-C - Destroys Airborne Bacteria & Viruses - 220V - 27.3W Total UV Output

**Product ID: 268916**



**Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.**

**This unit is Made In USA - Manufactured in Texas**

**IND-HVAC-DTW-UVC-R2-SS-24-3L-220V UV Air Duct Disinfection System**

**Lamp Technology:** UV-C Fluorescent

**Exterior Housing Dimensions:** 16-13/16"H x 8-1/8"W x 4-7/16"D

**Depth (Inside Duct) for Partial Internal Mount:** 27"

**Weight:** -

**Voltage:** 220V AC, 50/60 Hz

**Wattage:** 20W Per Lamp

**Total Watts:** 60W

**UV Output:** 9.1W per lamp

**Total UV Output:** 27.3W

**Irradiance (single lamp):** 75 uW/cm2 @ 1 meter

**Expected Lifespan:** 8,000+ Hours

**UV Wavelength:** 254nm peak

**Lamp Base:** G13 (Medium Bi-Pin)

**Replacement Lamp:** FRL-24-1X-T8-20W-UV-C

**Beam Angle:** 360º

**Light Configuration:** Flood

**Amps:** 0.63A @ 220V

**Ambient Operating Temp Range:** -

**Materials:** 304 Stainless Steel Enclosure

**Indicator Lights:** Operational Light (confirms on) and Replace Lamp (lamp no longer functional) indicator lamps

**Mounting:** Partial Internal Duct Mount

***PLEASE NOTE: UV-C light can cause temporary or permanent loss of vision, and temporary acute redness or ulceration (mild to severe sunburn) to exposed skin. To prevent

**Ratings/Features**

NRTL Listed to UL 508A

NRTL Listed to CSA C22.2 No. 14

T8 Bulb Shape

Short-wave Germicidal Light
Destroys Airborne Bacteria and Viruses
Non-Ozone Producing Germicidal UV Lamp
EPA Reg. No 98409-1
EPA Est. No. 98409-TX-1

**Special Orders - Requirements**

Contact us for special requirements

**Toll Free:** 1-800-369-6671

**Intl:** 1-214-616-6180

**Fax:** 1-903-498-3364

**E-mail:** sales@larsonelectronics.com

exposure, do not operate the device in any application that allows UV-C light to be visible during operation. NEVER LOOK DIRECTLY AT THE BULB OR DISINFECTING TARGET ZONE. DO NOT touch bulb with bare hands. The oils in your skin will damage the lamp. Fingerprints will result in reduced performance and significantly reduce the lifespan of the lamp unless they are removed with alcohol. Please read instruction manual for UV safety requirements before operating.***

**This unit is Made In USA - Manufactured in Texas**

**The IND-HVAC-DTW-UVC-R2-SS-24-3L-220V from Larson Electronics is a Air Duct Disinfection System that works to disinfect air moving through a duct system via germicidal ultraviolet (UV) rays. This unit helps to control the spread of airborne cold and flue virus as well as other airborne transmitted disease. This anodized aluminum air duct disinfection system features three of 20 watt UV bulbs that each produce 9.1 watts (27.3W total) of UV output at a wavelength of 254nm. The IND-HVAC-DTW-UVC-R2-SS-24-3L-220V is designed to be mounted inside an air duct and operates on 220V AC current.**

***Please note: This product produces UV light. Make sure to follow all safety guidelines and protocols found in the user manual.***

The IND-HVAC-DTW-UVC-R2-SS-24-3L-220V is a powerful sanitation solution for industrial sites and commercial facilities. Equipped with three UVC fluorescent lamps, this system offers 27.3 total watts of UV output at a wavelength of 254nm. The lights have an expected lifespan of 8,000+ hours and emit a flood beam pattern. The IND-HVAC-DTW-UVC-R2-SS-24-3L-220V can be used continuously in air ducts such as those found in HVAC systems.

**Operation:** This UV air duct disinfection system projects ultraviolet rays inside the air duct it is mounted in. The air flowing through the duct that passes through the UV rays is then sanitized. Bacteria and viruses present in the air that passes through the UV rays produced by the fixture are destroyed. The air moving through the duct is constantly being purified as it flows through the UV rays being produced by the fixture.

**Construction:** The enclosure of the IND-HVAC-DTW-UVC-R2-SS-24-3L-220V is built from 304 stainless steel. In-Operation and Replace-Lamp indicator lamps allows for operators to check the status of the UV bulb(s) without removing the fixture from the air duct or being exposed to harmful UV radiation.

**Mounting:** The IND-HVAC-DTW-UVC-R2-SS-24-3L-220V is designed to be mounted inside an air duct. The system is intended to be mounted in a partial internal style with the bulb(s) being mounted inside of the air duct and the electronics mounted on the outside of the duct.

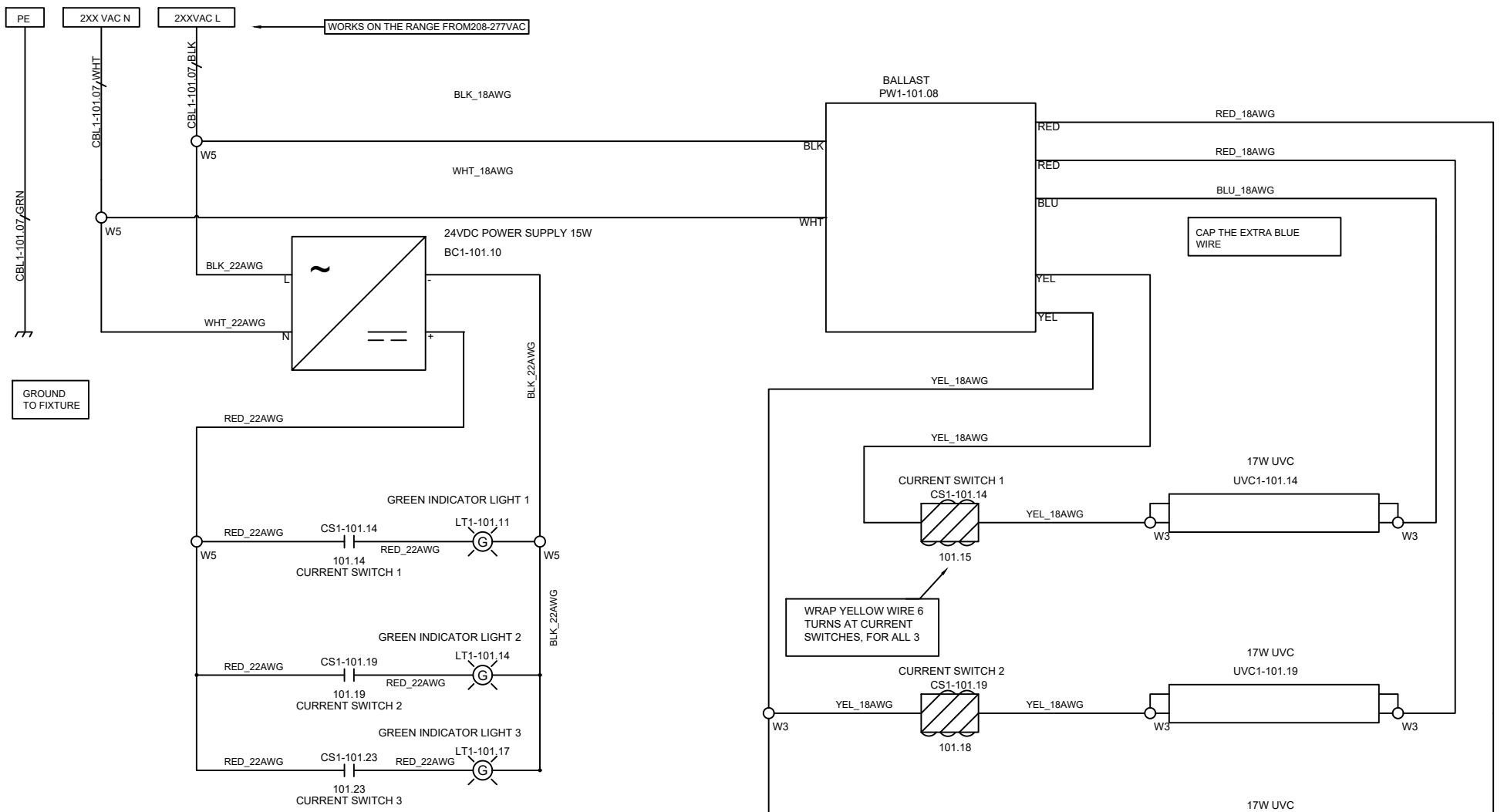
**Note on Environment**: Sunlight and visible light fixtures do not impact the effectiveness of the disinfecting on this UVC sanitation product. Metal halide, high pressure sodium, fluorescent, and LED light fixtures can be left on. The UV radiation emitted from this product is not disrupted by any type of lighting in the environment. Put simply, NO it DOES NOT need to be dark in the area you plan to disinfect. The UV radiation is harmful to the eyes and skin, and that is why you should not be in the area while it is in operation. Please see user manual for additional safety information.

**Applications:** This ultraviolet UV air duct disinfection system can be used to continuously disinfect air of mold, allergens, airborne bacteria, viruses, and germs. The IND-HVAC-DTW-UVC-R2-SS-24-3L-220V is ideal for use in restaurants, hospitals, clinics, laboratories, nursing homes, schools, food processing facilities, office buildings, conference rooms, universities, clean rooms, and many more. Larson Electronics is a manufacturer and as such can build stationary and portable transformer systems to your specifications. Although we carry several models of power distribution transformer systems, we can deliver custom ordered units almost as quickly as our prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.

| REV | DESCRIPTION | DATE |
|---|---|---|
| A | PRODUCTION RELEASE | 10/08/2020 |

# IND-HVAC-DTW-UVC-R2-SS-24-3L-2XXV

LARSON ELECTRONICS®

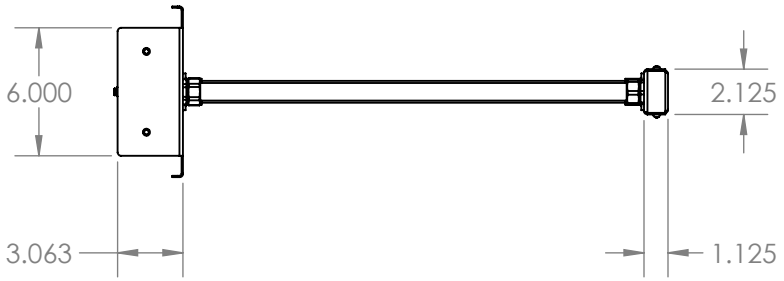


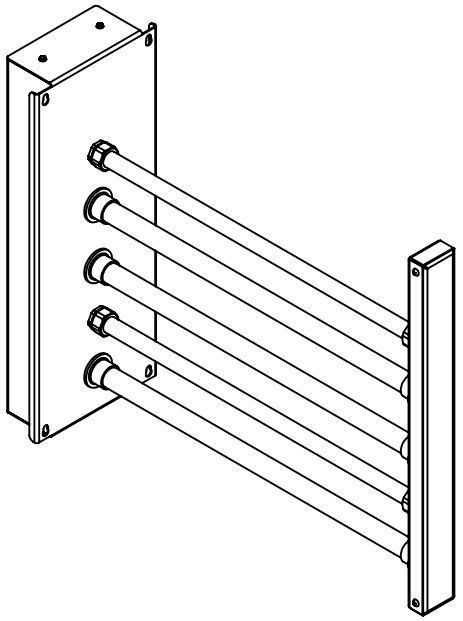

| TAGS | QTY | CATALOG | DESCRIPTION |
|---|---|---|---|
| BC1-101.10 | 1 | UNV00014068 | 15W 24VDC POWER SUPPLY |
| CS1-101.14<br>CS1-101.19<br>CS1-101.23 | 3 | UNV00015374 | 120VAC CURRENT SWITCH |
| UVC1-101.14<br>UVC1-101.19<br>UVC1-101.23 | 3 | UNV00014109 | 2FT 17W UVC BULB |
| LT1-101.11<br>LT1-101.14<br>LT1-101.17 | 3 | UNV00013985 | 24VDC GREEN INDICATOR LIGHT |
| PW1-101.08 | 1 | UNV00006837 | 32W T8 4L UVC LIGHT BALLAST 120-277VAC |
| W5 | 4 | UNV00009803 | 5 HOLES WAGO |
| W3 | 7 | UNV00011954 | 3 HOLE WAGO |
| CBL1-101.07 | 1 | UNV00007524 | 16/3 SOOW CABLE- BLACK |

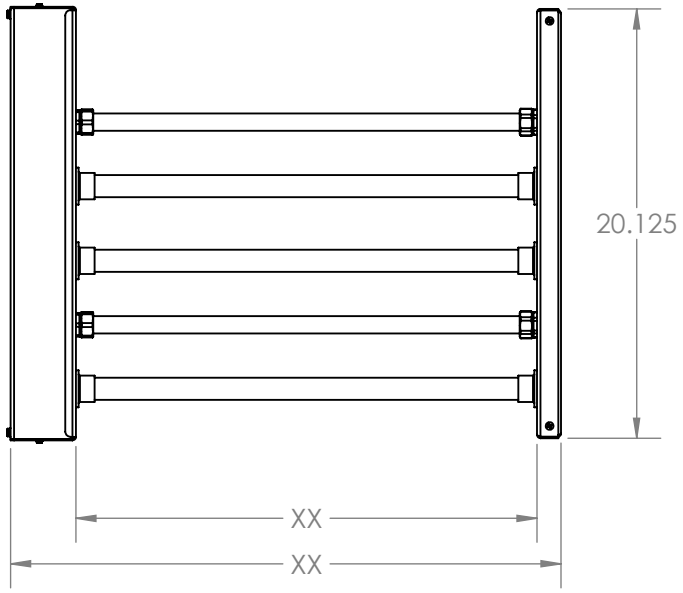
LARSON ELECTRONICS
9419 E US HWY 175,
KEMP, TX 75143

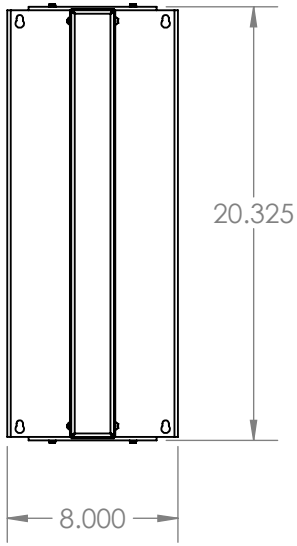
TITLE: IND-HVAC-DTW-UVC-R2-SS-24-3L-2XXV

| DRAWN BY | DATE | REV |
|---|---|---|
| K.NGUYEN | 10/08/2020 | A |
| CHECKED BY | SHEET # | DRAWING # |
| P.CRYER | 1 OF 1 | 101 |






LARSON ELECTRONICS

TITLE:

**IND-HVAC-DTW-UVC-R2-SS-48-3L-120V**

| | | | |
|---|---|---|---|
| FINISH | | | |
| SURFACE AREA [sq. in] | | | NAME |
| DIMENSIONS ARE IN INCHES | | DRAWN | CHRISTOPHER THAUER |
| MATERIAL | | CHECKED | N/A |
| DO NOT SCALE DRAWING | | DATE | 4/6/2020 |

| SIZE | DWG. NO. | REV |
|---|---|---|
| A | | |

SCALE: NTS | SHEET 1 OF 1

**PROPRIETARY AND CONFIDENTIAL**
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LARSON ELECTRONICS LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LARSON ELECTRONICS LLC IS PROHIBITED.

UNLESS OTHERWISE NOTED:

| | |
|---|---|
| Angle | +/- .5 deg |
| .X | +/- .02 |
| .XX | +/- .01 |
| .XXX | +/- .005 |

# Certification

Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
Kemp, Texas 75143

**Declare the following equipment conforms to the standard(s) as listed:**

Model: IND Series
Description: UV Light Machines and Light Fixtures

**Evaluated Listings:**

The IND Series UV Light Machines and UV Light Fixtures are certified to UL 508A and CSA C22.2 No 14 for industrial controls. Larson Electronics LLC is a certified “panel shop” and is certified for our engineering and manufacturing processes. Each unit is built to NEC and CEC electrical code. All electrical components used in the IND product line are certified to National Electric Code (NEC) for United States and Canadian Electric Code (CEC) for Canada. This includes all ballasts, sockets, tombstones, internal wiring, external wiring, buttons, relays, cord caps, and wire terminations. This is a requirement for our panel shop certification. Instead of certifying each part number, our shop is certified for our processes. This allows us to manufacture custom systems without the time delays associated with certifying each part number. Our shop undergoes regular audits for panel shop processes.

Each unit is inspected by our quality control department before shipment. Larson Electronics is an ISO 9001:2015 certified shop for quality control. Our shop undergoes regular audits for quality control processes.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature: James Thomas

Name: James Thomas
Position: Operations Manager



LARSON ELECTRONICS LLC • 9419 E US HWY 175 • KEMP, TX 75143
p: 1-800-369-6671 • intl: 903-498-3363 • f: 903-498-3364 • sales@larsonelectronics.com

# Form 3540-8 Accepted for Establishment LARSON ELECTRONICS LLC

From
helpdesk@epacdx.net

---

Re: Establishment Number: 98409-TX-1
EPA Region: 06

Larson Electronics LLC
Attn: Robert Bresnahan
9419 E US HWY 175

Kemp, TX 75143 USA

This email serves as notification of registration of the pesticide-producing establishment for which you applied, pursuant to Section 7 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The Form 3540-8 for establishment LARSON ELECTRONICS LLC has been accepted. The new Establishment Number is: 98409-TX-1. This establishment registration will remain in effect, provided pesticide reports on production and sales or distribution amounts are submitted annually as required.

Part 167 of the Code of Federal Regulations (40 CFR) requires your company to submit an initial report for Pesticide-Producing Establishments, EPA Form 3540-16, within 30 days of receipt of this email. You should submit electronically with the Section Seven Tracking System (SSTS) to ensure on-time delivery. You can find out how to register for e-reporting and submit your initial and annual reports quickly here: https://www.epa.gov/compliance/electronic-reporting-pesticide-establishments

Please note that the initial report asks for production amounts for year **2019**. **Failure to submit your Initial report(s) within 30 days may subject your establishment(s) to an administrative civil penalty.**

After the initial report, future reports must be submitted on a yearly basis. Production reports for establishments registered to produce pesticides and pesticidal devices are due by March 1st as long as the establishment is active, regardless of whether or not production has occured (regulations pursuant to Section 7 of FIFRA).

*NOTE: EPA will not accept any faxes or emails of establishment initial or annual reports (EPA Form 3540-16).*

Parts of the 40 CFR which apply to pesticide establishments are: (1) *Part 167-Registration of Pesticide and Active Ingredient Producing Establishments, Submission of Pesticide Reports* and (2) *Part 169-Books and Records of Pesticide Production and Distribution*.

Changes in name, address, or ownership of the company or any establishments are to be reported to this

office within thirty (30) days of the change. If your company decides to cease production of all pesticides and pesticidal-devices, you may request termination of the establishment(s). Requests for termination of establishments can be sent to the proper EPA Regional Coordinator in your area, or completed on our electronic reporting system at https://cdx.epa.gov.

The container of each pesticide product which is released for shipment must bear the EPA Establishment Number assigned to the establishment in which it was produced. This number, which is to be preceded by "EPA Est.", may appear in any suitable location on the label or immediate container. It must also appear on the outside container or wrapper of the package if the EPA Establishment Number on the immediate container cannot be clearly read.

For more information, FAQs and additional instructions please go to our website: https://www.epa.gov/compliance/pesticide-establishment-registration-and-reporting

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**WASHINGTON, D.C. 20460**

Sep 23, 2020

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Robert Bresnahan
Larson Electronics LLC
9419 E US HWY 175

Kemp, TX 75143

Subject: Assignment of New EPA Company Number

Dear Registrant:

The Office of Pesticide Programs received your request for a company/distributor number. The company number assigned to you is 98409.

You are required to notify the Agency of any change in name or address. All requests for change of company name and/or address, appointment of agent or withdrawal of an agent's appointment, must be sent to the following address:

Document Processing Desk(COADR)
Office of Pesticide Programs(7504P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

All products must be registered with the Agency prior to shipment and/or sale. Information on registering pesticide products can be obtained by calling the Registration Division Ombudsperson at (703) 308-8893. Requests for a Pesticide Registration Kit can be obtained via e-mail to: Hobgood.Sherada@epa.gov If you are only distributing a product you must complete the Notice of Supplemental Registration of Distributor (EPA form 8570-5). This form can also be obtained by calling the number listed above or can be downloaded at: https://www.epa.gov/pesticide-registration/pesticide-registration-manual-blank-forms.

Any production of pesticides, active ingredients or devices, including companies or establishments that import into the United States, must be conducted in a registered pesticide-producing or device-producing establishment. Information on registering an establishment can be downloaded at: https://www.epa.gov/compliance/epa-form-3540-8-application-registration-pesticide-producing-and-device-producing.

Sincerely,

Shirley A. Burgess

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Jiangsu Suqian Hengyi
Light Source Material Co., Ltd.
Material Safety Data Sheet (MSDS)

## SECTION 1 — CHEMICAL PRODUCT AND PRODUCER IDENTIFICATION

Mercury 99.9999%

Jiangsu Suqian Hengyi Light Source Material Co., Ltd.
Registered Office : Xinghong City South; Flat 605
Suqian City, Jiangsu Province, China
Postal Code 223800
Tel 86 527 84226126

## SECTION 2 — PRODUCT NAME, COMPOSITION AND INFORMATION

Mercury Purity 99.9999% (By weight)
CAS Nr. 7439-97-6
Synonym Quicksilver; Colloidal Mercury; Metallic Mercury; Hydragyrum
Usage As raw material for arc discharge lamps

## SECTION 3 — PHYSICAL AND CHEMICAL PROPERTIES

Odorless, silver color, very heavy liquid metal.
Soluble in nitric acids; Insoluble in water, alcohol and ether.
Chemical Formula : Hg
Formula Weight : 200.59

Boiling Point : 356.7℃
Melting Point : -38.8℃
Specific Gravity : 13.55

## SECTION 4 — HEALTH HAZARDS

Extremely high health hazards resulting from ingestion, skin absorption and inhalation of fume or vapor. Direct absorption by respiratory and intestinal tract. Corrosive to skin, eyes and mucous membranes.

## SECTION 5 — FIRST AID PRECAUTIONS

Consult a physician and seek medical attention for further treatment, observation and support after first aid.
Inhalation : Transfer to fresh air at once. Administer artificial respiration immediately in case of breathing difficulty.
Eye or External : Immediately flush with fresh water for at least 15 minutes.
Internal : Rinse mouth. Consult a physician or poison control at once.

## SECTION 6 — FIRE FIGHTING PRECAUTIONS

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Relatively stable, noncombustible liquid.
When heated to decomposition, emits toxic fumes of Hg.
Fire Fighting Instructions : Use dry chemical fire extinguisher to put out surrounding fire. Firefighters should wear PPE and SCBA with full facepiece operating in positive pressure mode.

## SECTION 7 — SPILLAGE

Proliferation of droplets may result in toxic spillage, requiring special care in the clean up. Clean up all droplets and transfer to a safe container. Scatter zinc dust to amalgamate the spillage into solid. Ventilate and wash the area.

## SECTION 8 — HANDLE AND STORAGE

Store in tightly enclosed corrosion-resistant glass or plastic containers; avoiding direct sun light and heat. Dispense in a plastic tray so that spillage can be easily recovered.

## SECTION 9 — EXPOSURE CONTROLS AND PROTECTION

Always wear chemical splash goggles, chemical-resistant gloves and apron to avoid contact with eyes, skin and clothing. Ventilate the work area to maintain airborne concentration below exposure limits. Always wear a respirator with proper cartridges, or a positive pressure, air supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines :
STEL 0.03 $mg/m^3$ ; Ceiling 0.1 $mg/m^3$ .

## SECTION 10 — STABILITY AND REACTIVITY

Avoid ammonia, aluminum, potassium, lithium, sodium, bromine, halogens, sulfuric acid, oxidizing agents and nitric acid.
Shelf life : Good when stored properly.

## SECTION 11 — TOXICOLOGY

Acute effects : Highly toxic, corrosive.
Chronic effects : Not all health aspects of this material have been fully investigated.
Target organs : Skin, respiratory system, CNS, kidneys and eyes.
Notes : Not all health risks of material have been fully studied.

## SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

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## SECTION 13 — DISPOSAL PRECAUTIONS

Follow all local regulations that may apply.

Returning material to a local Mercury recycler strongly recommended.

## SECTION 14 — TRANSPORT INFORMATION

Shipping name : Mercury

Hazard Class : 8, Corrosive.

UN Number : UN2809

## SECTION 15 — REGULATORY INFORMATION

US Federal : TSCA Listed.

On State Right to know lists in some states.

California – Warning : This product contains Mercury, a chemical known to the State of California to cause developmental reproductive Toxicity.

European / International Regulations

European Labeling in accordance with EC Directives

Hazard Symbols : T

Risk Phrases : R 23 Toxic by inhalation; R 33 Danger of cumulative effects.

## SECTION 16 — DISCLAIMER

This Material Safety Data Sheet was composed based on information and tests believed to be reliable. This data sheet is to provide reference and guidance to relevant parties handling or transporting the material. Data included should not be quoted as challenge to any local regulations, shipping and insurance mandates. This data sheet constitutes no Warranty on the part of the producer.

March 01, 2016

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intertek
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## Product Description

| | |
|---|---|
| **Title:** | INDUSTRIAL CONTROL PANELS |
| **Company:** | LARSON ELECTRONICS LLC - Kemp, TX USA |
| **Product Information:** | Industrial Control Panels For General Use. |
| **Evaluated to the following:** | A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Industrial Control Panels (UL-508A) and are identified with the ETL Listed Mark. |

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### Contact Us

ETL listed products that are in doubt or for products that do not appear in the directory, please request a verification of certification.
Americas+1-888-347-5478 (or +1-847-660-7407)
Email etldirectory@intertek.com

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## Product Description

| | |
|---|---|
| **Title:** | INDUSTRIAL CONTROL EQUIPMENT |
| **Company:** | LARSON ELECTRONICS LLC - Kemp, TX USA |
| **Product Information:** | Industrial Control Panels For General Use.<br><br>Industrial Control Panels Relating to Hazardous (Classified) Locations, Custom Industrial Control Panels.<br><br>Power Distribution System, Model Nos. MGL, MPD, MGS series; Followed by AAK-PBB.FFF-SCC.GGG-EEXCCC.DDD; Where AA = 2,3,5,7,9,15,20,25,30,45,50,75; BB = 1P, 3P; FFF = 480,240,208,120; CC = 1P,3P; GGG = 480,240,208,120; EE = # of outlets; CCC = voltage; DDD = outlet amperage. |
| **Evaluated to the following:** | A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Industrial Control Equipment (CAN/CSA-C22.2 No. 14) and are identified with the cETL Listed Mark. |

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ETL listed products that are in doubt or for products that do not appear in the directory, please request a verification of certification.
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# Frequently Asked Questions (FAQ)