MATERIAL SAFETY DATA SHEET: LP PADS WITH ZIRCONIUM OXIDE

SECTION 1: CHEMICAL PRODUCT & COMPANY INFORMATION

PART#: LP Pads
IDENTITY: Elastomeric Polyurethane
SYNONYMS LP-26, LP-46, GR-35, Laser Grade, GR 38, XGR-35A
CHEMICAL NAME: Proprietary reaction product which results in a polyurethane elastomer.
CHEMICAL FAMILY: Polyurethane
CAS #: Mixture
SUPPLIER: Universal Photonics, Inc.
24 HR. PHONE #: 800-451-8346-3E COMPANY
495 West John Street
Hicksville, NY 11801
FOR INFORMATION: (516) 935-4000
DATE PREPARED: March 2, 2011

SECTION 2: COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>CAS #</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane Elastomer</td>
<td></td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Polyurethane Elastomers are fully reacted polymers forming articles which are not considered hazardous under OSHA’s criteria in 29 CFR 1910.1200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zirconium Oxide</td>
<td>7440-67-7</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF ENTRY: Inhalation - Breathing of dust during machining and inhalation of vapors during hot wire cutting or branding.
See Section 11.

SECTION 4: FIRST AID MEASURES

EYES: Flush eyes for at least 15 minutes with water if dust from grinding causes irritation.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: N/A
AUTOIGNITION TEMP: N/A
FLAMMABLE LIMITS: N/A
UNUSUAL FIRE & EXPLOSION HAZARDS: No unusual hazards.
EXTINGUISHING MEDIA: Water spray, dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate non-emergency personnel to a safe area. Fire fighters should use self-containing breathing apparatus. Avoid breathing smoke, fumes, and decomposition products. Use water spray to drench smoldering elastomer. Product may melt, after ignition, to form flammable liquids. Burning produces intense heat, dense smoke, and toxic gases such as carbon monoxide, oxides of nitrogen and traces of hydrogen cyanide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILLS: Pick up and handle as any other inert solid material.
SECTION 7: HANDLING & STORAGE

STORAGE: Store elastomers in areas equipped with sprinkler systems. Store away from sparks, flames, or other ignition sources.

OTHER PRECAUTIONS: Use local exhaust ventilation to remove fumes associated with hot wire cutting and grinding.

SECTION 8: PERSONAL PROTECTION AND EXPOSURE CONTROLS

RESPIRATORY PROTECTION: For grinding and hot wire cutting wear an air purifying respirator, Unisorb C30 P100 or equivalent filter cartridge that will filter dust particles down to 0.3 microns.

EYE PROTECTION: Use safety goggles where potential for exposure to dust or other particles.

VENTILATION: Use local exhaust ventilation for grinding and hot wire cutting.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL APPEARANCE: White, Yellow, Beige or gray colored rigid polyurethane foam.

ODOR: Odorless

SPECIFIC GRAVITY (H2O=1): 0.41

VAPOR DENSITY (AIR=1): N/D

SOLUBILITY: Insoluble in water

VAPOR PRESSURE @ 20°C: N/D

MELTING POINT RANGE: 380° to 450° F (will degrade above 300° F)

SECTION 10: STABILITY & REACTIVITY

STABILITY: Stable at ambient temperatures and pressures.

INCOMPATIBILITY: Strong Acids or Bases, chlorinated solvents, amines, and alcohols.

HAZARDOUS DECOMPOSITION: Decomposition through burning produces fumes consisting of organic particulates, gaseous hydrocarbons, carbon dioxide, carbon monoxide, and may contain traces of isocyanates (TDI or MDI), hydrogen cyanide, acrolein, and oxides of nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE: None known from solid Article. Fumes from hot wire cutting can be irritating and may lead to coughing. These fumes could contain residual TDI.

CHRONIC: Animal studies indicate that chronic inhalation or overexposure to dusts may cause inflammation of the lungs, fibrosis, and airway obstruction.

CARCINOGENICITY: None, cured polyurethane is not listed as a carcinogen.
# MATERIAL SAFETY DATA SHEET: LP PADS WITH ZIRCONIUM OXIDE

## SECTION 12: ECOLOGICAL INFORMATION

N/A

## SECTION 13: DISPOSAL INFORMATION

**WASTE DISPOSAL METHOD:** Standard landfill methods consistent with applicable Federal, State, and local law.

## SECTION 14: TRANSPORTATION INFORMATION

**US DOT HAZARDOUS CLASS:** Non Regulated

## SECTION 15: REGULATORY INFORMATION

## SECTION 16: OTHER INFORMATION

N/A = Not Applicable  
N/D = Not Determined

### DISCLAIMER

WHILE UNIVERSAL PHOTONICS, INC. BELIEVES THAT THE DATA AND INFORMATION CONTAINED HEREIN ARE FACTUAL AND THE OPINIONS ARE THOSE OF QUALIFIED EXPERTS, THEY ARE NOT TO BE TAKEN AS A WARRANTY OR REPRESENTATION FOR WHICH UNIVERSAL PHOTONICS, INC. ASSUMES ANY LEGAL RESPONSIBILITY. THEY ARE OFFERED SOLEY FOR THE CONSIDERATION, INVESTIGATION AND VERIFICATION BY THE USER. IT IS THE USER’S RESPONSIBILITY TO DETERMINE THE SUITABILITY OF THIS PRODUCT, DATA AND INFORMATION WITH APPLICABLE LAWS AND REGULATIONS.

LPPads.03.11.msds