SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SCIGRIP® 42 2-Component Low VOC Adhesive (10:1 Mix Ratio)
PRODUCT USE: 2-Component Adhesive for bonding termoplastics, metals and other composites
SUPPLIER: SCIGRIP Smarter Adhesive Solutions
MANUFACTURER: SCIGRIP Smarter Adhesive Solutions

EMERGENCY: Transportation: CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International)
Medical: CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International)
Tel. 1-919-598-2400

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:
Health Hazard Statements:
Acute Toxicity: Category 4
Skin Irritation: Category 2
Skin Sensitization: Category 1
Eye: Category 2
Environmental Hazard Statements:
Flammable Liquid: Category 2
Physical Hazard Statements:
Acute Toxicity: Category 3
Chronic Toxicity: Category 4

GHS LABEL:
Signal Word: Danger
WHMIS CLASSIFICATION: CLASS B, DIVISION 2
CONTROLLED PRODUCT: CLASS D, DIVISION 28

Precautionary Statements:
P233 - Keep container tightly closed
P260 - Do not breathe vapor
P262: Do not get in eyes, on skin, or on clothing
P333 - Keep away from heat, sparks, and open flame
P334 - Take precaution against inhalation
P335 - Avoid contact with eyes, skin, and clothing
P361/363 - Take thorough washing after handling
P401 - Keep out of the reach of children
P403/405 - Wash contaminated clothing before re-use
P421 - Store in a dry place

Hazard Statements:
H225 - Highly flammable liquid and vapor
H317 - May cause an allergic skin reaction
H319 - May cause respiratory irritation
H337 - May cause skin irritation

Precautionary Statements:
P233 - Keep container tightly closed
P260 - Do not breathe vapor
P261: Do not get in eyes, on skin, or on clothing

PREPARATION/INFORMATION ON INGREDIENTS

Component “A” (Base Resin):
Methyl Methacrylate Monomer (MMA) * Stabilized
Component “B” (Catalyst-Initiator):
Benzoyl Peroxide (BPO)*

NFPA:
Health: 2
Flammability: 2
Reactivity: 2

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.


# INDICATES THAT THIS CHEMICAL IS FOUND ON PROPOSITION 65’S LIST OF CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE TOXICITY.

SECTION 4 - FIRST AID MEASURES

Contact with eyes:
Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.

Skin contact:
Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.

Inhalation:
Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.

Ingestion:
Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.

Likely Routes of Exposure:
Inhalation, Eye, and Skin Contact

Acute symptoms and effects:
Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.

Eye Contact: Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.

Skin Contact: Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.

Ingestion: May cause nausea, vomiting, diarrhea, and mental sluggishness.

Chronic (long-term) effects:
None known to humans

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media:
Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.

Unsuitable Extinguishing Media:
Water spray or stream.

Exposure Hazards:
Inhalation and dermal contact

Combustion Products:
Oxides of carbon, oxides of nitrogen, hydrogen chloride, hydrocarbons, acid smoke and gases.

Protection for Firefighters:
Self-contained breathing apparatus or full-face positive pressure air-supply masks.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions:
Keep away from heat, sparks, and open flame.

Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment.

Environmental Precautions:
Prevent contact with skin or eyes (see section 8).

Methods for Cleaning up:
Contain spill with sand or other inert absorbent or absorbent material. Use non-sparking tools.

Transfer to a closed vessel (metal or polyethylene [PE])

SECTION 7 - HANDLING AND STORAGE

Handling:
Avoid breathing of vapor, avoid contact with eyes, skin and clothing.

Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods.

Do not eat, drink or smoke while handling.

Storage:
Store between 50° - 80°F (10° - 27°C) in well-ventilated area. Keep container tightly closed when not in use.

Keep away from ignition sources and incompatible materials. Follow all precautionary information on container label and product bulletins.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:
Component ACGIH TLV ACGIH STEL OSHA PEL OSHA STEL
Methyl Methacrylate Mon.
50 ppm 100 ppm N/E
Benzoyl Peroxide
5 mg/m³ 10 mg/m³ N/E

Engineering Controls:
Use local exhaust as needed.

Monitoring:
Maintain breathing zone airborne concentrations below exposure limits.

Personal Protective Equipment (PPE):
Eye Protection:
Avoid contact with eyes, wear splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields.

Skin Protection:
Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion.

Respiratory Protection:
Use in a well-ventilated room. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminant below levels listed above. With normal use, the Exposure Limit Value will not usually be reached.

When limits approached, use respiratory protection equipment.
**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td>&quot;A&quot; - Clear, heavy viscous liquid, &quot;B&quot; - Clear low viscosity liquid</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>&quot;A&quot; - Strong Solvent Odor, &quot;B&quot; - Mild</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Boiling Point:</strong></td>
<td>&quot;A&quot; -100.5°C (212.9°F) Based on first boiling component: MMA</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>&quot;A&quot; 11.5°C (52.7°F) T.C.C. based on MMA, &quot;B&quot; 84°C (184°F) for BPO</td>
</tr>
<tr>
<td><strong>Specific Gravity:</strong></td>
<td>&quot;A&quot; 1.0266 @ 25°C (73°F) &quot;B&quot; 1.1648 @ 23°C (73°F)</td>
</tr>
<tr>
<td><strong>Solubility:</strong></td>
<td>&quot;A&quot; - Slight in Water (MMA, MAA), &quot;B&quot; - Insoluble in Water</td>
</tr>
<tr>
<td><strong>Auto-ignition Temperature:</strong></td>
<td>&quot;A&quot; 421°C (788°F); MMA, &quot;B&quot; - Not Established</td>
</tr>
<tr>
<td><strong>Boiling Point:</strong></td>
<td>&quot;A&quot; - &gt; 1.0, &quot;B&quot; - &lt;1 (BUAC = 1)</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>&quot;A&quot; - &gt; 1.0, &quot;B&quot; - &lt;1 (BUAC = 1)</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>&quot;A&quot; 11.5°C (52.7°F) T.C.C. based on MMA, &quot;B&quot; 84°C (184°F) for BPO</td>
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<td>&quot;A&quot; 1.0266 @ 25°C (73°F) &quot;B&quot; 1.1648 @23°C (73°F)</td>
</tr>
<tr>
<td><strong>Solubility:</strong></td>
<td>&quot;A&quot; - Slight in Water (MMA, MAA), &quot;B&quot; - Insoluble in Water</td>
</tr>
</tbody>
</table>

**SECTION 10 - STABILITY AND REACTIVITY**

- **Stability:** Stable, unless heated
- **Hazardous decomposition products:** None in normal use. Oxides of carbon, oxides of nitrogen, hydrogen chloride, hydrocarbons, acrid smoke and gases upon combustion.
- **Conditions to avoid:** Keep away from direct sunlight, heat, sparks, open flame and other ignition sources.
- **Incompatible Materials:** Reducing and oxidizing agents and metal contaminants

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Toxicity:</strong></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Monomer (MMA)</td>
<td>Oral: 7900 mg/kg (rat), Dermal: &gt;35000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Benzoyl Peroxide</td>
<td>Oral: 6400 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>Inhalation: 3 hrs. 7093 PPM (rat)</td>
</tr>
<tr>
<td></td>
<td>Oral: 2 mg/l 96 hours (guppy)</td>
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</tbody>
</table>

**SECTION 12 - ECOLOGICAL INFORMATION**

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<table>
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<tbody>
<tr>
<td><strong>Ecotoxicity:</strong></td>
<td>Not established</td>
</tr>
<tr>
<td><strong>Mobility:</strong></td>
<td>In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of ≤50 g/l</td>
</tr>
<tr>
<td><strong>Degradability:</strong></td>
<td>Not established</td>
</tr>
<tr>
<td><strong>BioAccumulation:</strong></td>
<td>Not established</td>
</tr>
</tbody>
</table>

**SECTION 13 - WASTE DISPOSAL CONSIDERATIONS**

Follow local and national regulations. Consult local disposal expert.

**SECTION 14 - TRANSPORT INFORMATION**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Proper Shipping Name:</strong></td>
<td>Adhesives</td>
</tr>
<tr>
<td><strong>Hazard Class:</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Secondary Risk:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Identification Number:</strong></td>
<td>UN 1133</td>
</tr>
<tr>
<td><strong>Packing Group:</strong></td>
<td>PG II</td>
</tr>
<tr>
<td><strong>Label Required:</strong></td>
<td>Class 3 Flammable Liquid</td>
</tr>
<tr>
<td><strong>Marine Pollutant:</strong></td>
<td>NO</td>
</tr>
</tbody>
</table>

**SECTION 15 - REGULATORY INFORMATION**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Precautionary Label:</strong></td>
<td>Highly Flammable, Harmful</td>
</tr>
<tr>
<td><strong>Risk Phrases:</strong></td>
<td>R-11 Highly Flammable</td>
</tr>
<tr>
<td></td>
<td>R-36/37/38 Irritating to eyes, respiratory system and skin</td>
</tr>
<tr>
<td></td>
<td>R-43 May cause sensitization by skin contact.</td>
</tr>
<tr>
<td><strong>Safety Phrases:</strong></td>
<td>S-2 Keep out of reach of children</td>
</tr>
<tr>
<td></td>
<td>S-3 Keep in a cool place</td>
</tr>
<tr>
<td></td>
<td>S-7 Keep container tightly closed</td>
</tr>
<tr>
<td></td>
<td>S-24/25 Avoid contact with skin and eyes.</td>
</tr>
</tbody>
</table>

**SECTION 16 - OTHER INFORMATION**

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.