Section 1 – Identification

Product Name: KEY-DUP All Purpose Duplicating Material
Manufacturer: KEYSTONE INDUSTRIES
52 King Street Myerstown, PA 17067
Chemical Name / Synonyms: Glycerine & Potassium Hydroxide
Information Contacts: (856)-663-4700
Keystone Part No.: 1310315 & 1310310
Emergency Phone Numbers: US & Canada ( 800 ) 535-5053
EU Address: KEYSTONE EUROPE LLC.
Batavenweg 7
5349BC OSS, Netherlands
Emergency Phone Numbers: International: 1-352-323-3500

Section 2 – Hazards Identification

EMERGENCY OVERVIEW
This information is based on findings from related or similar materials.

- Material is not considered hazardous by OSHA per 29 CFR 1910
- May cause eye irritation – H320
- May be harmful if swallowed – H303
- May be harmful in contact with skin – H313

Potential Health Effects, Signs and Symptoms of Exposure:
Primary Route of Entry: Inhalation, skin, and ingestion.

Eye
Contact with eyes may cause irritation, such as burning, itching, redness, and swelling.

Skin
Excess contact with skin may cause irritation, such as burning, itching, and redness.

Ingestion
Ingestion may cause abdominal pain, nausea, and upset stomach. Increased blood sugar levels.

Inhalation
Inhalation may cause irritation to the respiratory tract.

NOTE: Refer to Section 11, Toxicological Information for Details

Section 3 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS Numbers</th>
<th>EINECS#</th>
<th>INCI Name</th>
<th>Exposure OSHA TWA/STEL</th>
<th>Limits ACGIH TWA/STEL</th>
<th>Carcinogen IARC/NTP/OSHA</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>200-289-5</td>
<td>Glycerin</td>
<td>(dust) TWA = 15mg/m^3</td>
<td>(dust) TWA = 10mg/m^3</td>
<td>No/No/No</td>
<td>30-90</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>215-181-3</td>
<td>Potassium Hydroxide</td>
<td>TLV = 2mg/m^3</td>
<td>TLV = 2mg/m^3</td>
<td>No/No/No</td>
<td>0-30</td>
</tr>
<tr>
<td>Aluminum Potassium Bis (Sulfate)</td>
<td>7784-24-9</td>
<td>233-141-3</td>
<td>Potassium Alum</td>
<td>(dust) TWA = 15mg/m^3</td>
<td>(dust) TWA = 10mg/m^3</td>
<td>No/No/No</td>
<td>0-10</td>
</tr>
</tbody>
</table>

N/E – None Established
N/R – Not Reviewed
N/DA – No Data Available
N/A – Not Applicable

(items in parenthesis relate to 1999/45/EC)

Glycerol: Danger Symbol – GHS07 (Xi)
Hazard Statement – H315 (R38), H319 (R36)
Precautionary Statement – P404 (S7), P403+235 (S3/9)

Potassium Hydroxide: Danger Symbol – GHS05 (C), GHS07 (Xn)
Hazard Statement – H302 (R22), H314 (R34)
Precautionary
Statement – P102/P405 (S1/2), P305 + 334 (S26), P280 (S36/37/39), P309 + 315 (S45)
Aluminum Potassium Bis (Sulfate): Danger Symbol – GHS07 (Xi)
Hazard Statement – H319/H315 (R36/38)
Precautionary
Statement – P102 (S2), P301 + 314 (S46)

See Section 16 for Hazard and Precautionary Statement Key.

Section 4 – First Aid Measures

First Aid for Eye
Flush eyes with water for 15 minutes. If pain or irritation persists, seek medical attention.

First Aid for Skin
Upon contact with skin, wipe off immediately and wash area with plenty of soap and water. If irritation develops and persists, seek medical attention.

First Aid for Ingestion
Do not swallow. Large quantities may cause gastrointestinal disturbances. Induce vomiting seek medical attention.

Date of Issue: 05/08/2014
Section 5 – Fire Fighting Measures

<table>
<thead>
<tr>
<th>Flash Point (°F/°C)</th>
<th>Flammable Limit (vol%)</th>
<th>Auto-ignition Temperature (vol%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Method:**
Extinguishing Media: Suitable extinguishing media for the surrounding fire should be used. Water, fog, alcohol resistant foam, Carbon Dioxide, dry chemical.
Fire Fighting Instructions: Nothing out of the ordinary. Wear positive pressure respirator / self contained breathing apparatus.
Unusual Hazards: None

Section 6 – Accidental Release Measures

Spill or Release Procedures:
- Minor spills – Clean up immediately. Wipe up excess liquid and clean area with soap and water.
- Major spills – Clear area of personnel. Restrict access to area. Dilute with water and clean area with soap and water. Slipping hazard. See section 8 & section 12.

Section 7 – Handling and Storage

Handling: Wear protective clothing.
Storage: Store in a cool, dry location away from sparks, sunlight, and heat. Do not freeze product.
Explosion Hazard: None

Section 8 – Exposure Controls / Personal Protection

**Personal Protective Equipment**
- General: To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132), or European Standard EN166 be conducted before using this product.
- Eye/ Face Protection: Always wear safety goggles when handling chemicals.
- Skin Protection: Simple rubber or nitrile gloves.
- Respiratory Protection: If inadequate ventilation exists, a NIOSH approved respirator is recommended.

Section 9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Odor &amp; Odor Threshold</th>
<th>pH</th>
<th>Specific Gravity</th>
<th>Viscosity</th>
<th>% Volatile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green, semi-hard</td>
<td>Low Odor</td>
<td>N/A</td>
<td>(H2O = 1): 0.94</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point/ Freezing Point</th>
<th>Decomposition Temperature</th>
<th>Octanol/Water Partitioning Coefficient Log Po/w</th>
<th>Vapor Pressure</th>
<th>Vapor Density</th>
<th>Evaporation Rate</th>
<th>Ignition</th>
<th>Solubility In Water (20°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>151°C / 90°C</td>
<td>N/DA</td>
<td>N/DA</td>
<td>3 mm Hg</td>
<td>3.1</td>
<td>N/DA</td>
<td>N/DA</td>
<td>Miscible</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash Point (°F/°C)</th>
<th>Flammable Limit (vol%)</th>
<th>Auto-ignition Temperature (vol%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 °C</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10 – Stability and Reactivity

**Stability:** Stable
**Hazardous Decomposition Products:** Acrolein
**Incompatibility (Materials to Avoid):** Acids, oxidizers
**Hazardous Polymerization:** Will not occur
**Conditions to Avoid:** Heat
Material Safety Data Sheet

Section 11 – Toxicological Information

<table>
<thead>
<tr>
<th></th>
<th>Acute Oral Toxicity</th>
<th>Acute Dermal Toxicity</th>
<th>Acute Inhalation Toxicity</th>
<th>Irritation – skin</th>
<th>Irritation – Eye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitization</td>
<td>N/DA</td>
<td>N/DA</td>
<td>N/DA</td>
<td>N/DA</td>
<td>N/DA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mutagenicity</th>
<th>Sub-chronic Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/DA</td>
<td>N/DA</td>
</tr>
</tbody>
</table>

Section 12 – Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicological Information</th>
<th>Acute Toxicity to Fish</th>
<th>Acute Toxicity to Invertebrates</th>
<th>Acute Toxicity to Algae</th>
<th>Bioconcentration</th>
<th>Toxicity to Sewage Bacteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/DA</td>
<td>N/DA</td>
<td>N/DA</td>
<td>N/DA</td>
<td>N/DA</td>
</tr>
</tbody>
</table>

Chemical Fate Information

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>N/DA. This material is not expected to bioaccumulate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Oxygen Demand</td>
<td>N/DA</td>
</tr>
</tbody>
</table>

Section 13 – Disposal Considerations

Dispose of in compliance with governmental regulation (state and federal).
Dispose of container and unused contents in accordance with federal, state and local requirements. For EU Member States, please refer to any relevant Community provisions relating to waste. In their absence, it is useful to remind the user that national or regional provisions may be in force.

Section 14 – Transport Information

Non-regulated, non-hazardous material: DOT, IATA, IMO (IMDG).

Section 15 – Regulatory Information

### US Federal Regulations

<table>
<thead>
<tr>
<th>Clean Air Act: HAP/ODS</th>
<th>This product does not contain any HAP’s or ODS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Water Act: Priority Pollutant</td>
<td>This product does not contain any chemicals listed under the U. S. Clean Water Act Priority Pollutant and Hazardous Substance List.</td>
</tr>
<tr>
<td>FDA: Food Packaging Status</td>
<td>This product has not been cleared by the FDA for use in food packaging and / or other applications as an indirect food-packaging additive.</td>
</tr>
<tr>
<td>Occupational Safety and Health Act</td>
<td>This product is not considered to be hazardous under the OSHA Hazard Communication Standard.</td>
</tr>
<tr>
<td>SARA Title III: Section 302 (RQ)</td>
<td>This product contains no chemicals regulated under Section 302 as extremely hazardous substances.</td>
</tr>
<tr>
<td>SARA Title III: Section 302 (TPQ)</td>
<td>This product does contain chemicals regulated under Section 304 as extremely hazardous chemicals for emergency release notification (“CERCLA” List).</td>
</tr>
<tr>
<td></td>
<td>• Potassium Hydroxide CAS # 1310-58-3 (1000 lbs RQ)</td>
</tr>
<tr>
<td>SARA Title III: Section 311-312:</td>
<td>This product is not considered to be hazardous under the OSHA Hazard Communication Standard and is regulated under Section 311-312 (40 CFR 370).</td>
</tr>
<tr>
<td>SARA Title III: Section 313:</td>
<td>This product contains the following chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:</td>
</tr>
<tr>
<td></td>
<td>• None</td>
</tr>
<tr>
<td>TSCA Section 8(b): Inventory:</td>
<td>This product’s ingredients comply with US TSCA requirements.</td>
</tr>
<tr>
<td>TSCA Significant New Use Rule:</td>
<td>None of the chemicals in this material have a SNUR under TSCA.</td>
</tr>
</tbody>
</table>

### State Regulations

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>MA Right-to-Know Law:</td>
<td>Glycerine – CAS # 56-81-5</td>
</tr>
<tr>
<td></td>
<td>Potassium Hydroxide – CAS # 1310-58-3</td>
</tr>
</tbody>
</table>

Date of Issue: 05/08/2014
NJ Right-to-Know Law: Glycerine – CAS # 56-81-5  
Potassium Hydroxide – CAS # 1310-58-3  
Aluminum Potassium Bis (Sulfate) – CAS # 7784-24-9

PA Right-to-Know Law: Glycerine – CAS # 56-81-5-0  
Potassium Hydroxide – CAS # 1310-58-3  
Aluminum Potassium Bis (Sulfate) – CAS # 7784-24-9

FL Right-to-Know Law: N/A

MN Right-to-Know Law: Glycerine – CAS # 56-81-5-0  
Potassium Hydroxide – CAS # 1310-58-3

<table>
<thead>
<tr>
<th>International Regulations</th>
<th></th>
</tr>
</thead>
</table>
| CDSL: Canadian Inventory (on Canadian Translational List) | All components are listed, where applicable.

<table>
<thead>
<tr>
<th>Labeling according to EC directives – 1272/2008 (CLP) AND 1999/45/EC (items in parenthesis relate to 1999/45/EC)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>European Community:</td>
<td>For KEY-DUP (finished product):</td>
</tr>
</tbody>
</table>
| | • DANGER SYMBOLS: N/A – non hazardous  
| | • HAZARD STATEMENT: H303 (N/A), H313 (N/A), H316 (N/A), H320 (N/A), H333 (N/A)  
| | • PRECAUTIONARY STATEMENT: P102 / P405 (S1/2), P261 (S23), P280 (S36/37/39), P305 + 334 (S26) |

<table>
<thead>
<tr>
<th>Section 16 – Other Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Classes and Risk / Safety Phrases for Referenced Ingredients (See Section 2)</td>
<td>(items in parenthesis relate to 1999/45/EC)</td>
</tr>
<tr>
<td>Danger Symbols:</td>
<td>GHS07 (X) – Irritant; GHS05 (C) – Corrosive; GHS07 (Xn) – Harmful</td>
</tr>
</tbody>
</table>
| Hazard Statement: | H320 (N/A), Causes eye irritation.  
| | H303 (N/A), May be harmful if swallowed.  
| | H313 (N/A), Maybe be harmful in contact with skin.  
| | H316 (N/A), Causes mild skin irritation.  
| | H333 (N/A), May be harmful if inhaled.  
| | H315 (R38), Causes skin irritation.  
| | H319 (R36), Causes serious eye irritation.  
| | H302 (R22), Harmful if swallowed.  
| | H314 (34), Causes severe skin burns and eye damage. |
| Precautionary Statement: | P404 (S7), Store in a closed container.  
| | P403 + 235 (S3/9), Store in a well ventilated place; Keep cool.  
| | P102/P405 (S1/2), Keep out of reach of children / store locked up.  
| | P305 + 334 (S26), If in eyes immerse in cool water.  
| | P280 (S36/37/39), Wear protective clothing/goggles/gloves/eye protection.  
| | P309+315 (S45), If exposed and you feel unwell get immediate medical attention.  
| | P301 + 314 (S46), If swallowed get medical attention if you feel unwell.  
| | P261 (S23), Avoid breathing fumes. |

<table>
<thead>
<tr>
<th>Hazard Rating System (Pictograms)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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