Emergency Overview: A(n) tan liquid product with a strong solvent odor. DANGER! Flammable liquid and vapor. Vapors may cause flash fire or explosion. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Store away from caustics and oxidizers. Keep container closed and away from heat, sparks, and open flame. Vapors may be harmful if inhaled. Harmful or fatal if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary edema and pneumonitis. Irritating to eyes, respiratory system and skin. May affect the brain or nervous system causing dizziness, headache or nausea. May affect the brain or nervous system causing dizziness, headache or nausea. Avoid breathing vapors. Use only with adequate ventilation. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Refer to other MSDS sections for other detailed information.

Effects Of Overexposure - Eye Contact: May cause eye irritation. Signs and symptoms may include: pain, tears, swelling, redness and blurred vision.

Effects Of Overexposure - Skin Contact: May cause skin irritation. Prolonged and repeated skin contact may cause dermatitis, drying and defatting due to the solvent properties.

Effects Of Overexposure - Inhalation: Vapors may be harmful if inhaled. Inhalation of vapors may cause irritation of the nose, throat, lungs and respiratory tract. Inhalation of vapors in high concentration may cause shortness of breath. Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possibly narcosis. In extreme cases, may cause loss of consciousness. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
**Effects Of Overexposure - Ingestion:** Harmful or fatal if swallowed. May cause gastrointestinal disturbances with dizziness and central nervous system depression. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. If ingested, may cause depressed respiration. Aspiration hazard if swallowed. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis, which can be fatal.

**Effects Of Overexposure - Chronic Hazards:** Prolonged or repeated contact with skin can cause defatting of the skin, which may lead to dermatitis. Repeated or prolonged exposure may cause skin, respiratory, kidney and liver damage. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Symptoms include: loss of memory, loss of intellectual ability and loss of coordination. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Overexposure or misuse of toluene can cause liver, kidney, and brain damage as well as cardiac abnormalities.

**Primary Route(s) Of Entry:** Skin Contact, Inhalation

**Medical Conditions which May be Aggravated by Exposure:** Pre-existing eye, skin and pulmonary disorders may be aggravated by exposure to this product.

**Carcinogenicity:**

None

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### Section 3 - Composition / Information On Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CASRN</th>
<th>Wt%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>30-60</td>
</tr>
<tr>
<td>Methyl ethyl ketone (MEK)</td>
<td>78-93-3</td>
<td>7-13</td>
</tr>
<tr>
<td>Light aliphatic solvent naphtha</td>
<td>64742-89-8</td>
<td>5-10</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>142-82-5</td>
<td>5-10</td>
</tr>
<tr>
<td>Magnesium oxide fume</td>
<td>1309-48-4</td>
<td>0.5-1.5</td>
</tr>
</tbody>
</table>

---

### Section 4 - First Aid Measures

**First Aid - Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**First Aid - Skin Contact:** Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist. Remove and wash contaminated clothing. To remove from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. DO NOT try to peel the solidified material from the skin or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of this material from the skin. Flush exposed area with water while removing contaminated clothing. Get medical attention if irritation persists.

**First Aid - Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**First Aid - Ingestion:** If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

**Note to Physician:** Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard if swallowed. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting. Preexisting disorders of the following organs (may be aggravated by exposure to this material: skin, lungs (for example, asthma-like conditions). Individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeat) if exposed to high concentrations of this material.

**COMMENTS:** If over-exposure occurs, call your poison control center at 1-800-222-1222.
**Section 5 - Fire Fighting Measures**

*Extinguishing Media:* Carbon Dioxide, Dry Chemical, Foam

*Unusual Fire And Explosion Hazards:* Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Vapors may form explosive mixtures with air. Containers may explode if exposed to extreme heat. Eliminate sources of ignition: heat, electrical equipment, sparks and flames. Empty containers retain product residue (liquid and/or vapor). Vapor can ignite potentially causing an explosion.

*Special Firefighting Procedures:* Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

**Section 6 - Accidental Release Measures**

*Steps To Be Taken If Material Is Released Or Spilled:* Wear proper protective equipment as specified in Section 8. Immediately eliminate sources of ignition. Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers.

**Section 7 - Handling And Storage**

*Handling:* KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Flammable liquid. Avoid heat, sparks and open flames. Keep away from open flames, hot surfaces and sources of ignition. Use in well ventilated area. Open all windows and doors or use other means to ensure cross-ventilation and fresh air entry during application and drying. Avoid breathing vapor and contact with eyes, skin and clothing. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal. Construction and repair activities can adversely affect indoor air quality. Consult with occupants or a representative (i.e. maintenance, building manager, industrial hygienist, or safety officer) to determine ways to minimize impact.

*Storage:* Store away from sources of ignition and heat. Keep containers tightly closed. Do not store at temperatures above 120 degrees F. Store containers away from excessive heat and freezing. Store away from caustics and oxidizers.

**Section 8 - Exposure Controls / Personal Protection**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CASRN</th>
<th>ACGIH TWA</th>
<th>ACGIH STEL</th>
<th>ACGIH CEIL</th>
<th>OSHA TWA</th>
<th>OSHA STEL</th>
<th>OSHA CEIL</th>
<th>Skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>20 PPM</td>
<td>N.E.</td>
<td>N.E.</td>
<td>200 PPM</td>
<td>N.E.</td>
<td>300 PPM</td>
<td>Yes</td>
</tr>
<tr>
<td>Methyl ethyl ketone (MEK)</td>
<td>78-93-3</td>
<td>200 PPM</td>
<td>300 PPM</td>
<td>N.E.</td>
<td>200 PPM</td>
<td>N.E.</td>
<td>N.E.</td>
<td>No</td>
</tr>
<tr>
<td>Light aliphatic solvent naphtha</td>
<td>12745-89-8</td>
<td>300 PPM</td>
<td>N.E.</td>
<td>N.E.</td>
<td>300 PPM</td>
<td>400 PPM</td>
<td>N.E.</td>
<td>No</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>142-82-5</td>
<td>400 PPM</td>
<td>500 PPM</td>
<td>N.E.</td>
<td>500 PPM</td>
<td>N.E.</td>
<td>N.E.</td>
<td>No</td>
</tr>
<tr>
<td>Magnesium oxide fume</td>
<td>1309-48-4</td>
<td>10 MGM3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>15 MGM3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>No</td>
</tr>
</tbody>
</table>

*Important:* Listed Permissible Exposure Levels (PEL) are from the U.S. Dept. of Labor OSHA Final Rule Limits (CFR 29 1910.1000); these limits may vary between states.

*Note:* An employee’s skin exposure to substances having a “YES” in the “SKIN” column in the table above shall be prevented or reduced to the extent necessary under the circumstances through the use of gloves, coveralls, goggles or other appropriate personal protective equipment, engineering controls or work practices.

**Exposure Notes:**

None

**Precautionary Measures:** Please refer to other sections and subsections of this MSDS.

**Engineering Controls:** Use only in well-ventilated areas. Vapors are heavier than air and may spread along floors. Check all low areas for presence of vapor. Provide sufficient general and/or local exhaust ventilation to maintain exposure below recommended exposure limit. The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.
If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment. If concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor is exceeded, use of a Self Contained Breathing Apparatus (SCBA) may be necessary. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator’s use.

**Skin Protection:** Solvent-resistant gloves.

**Eye Protection:** Goggles or safety glasses with side shields.

**Other protective equipment:** Provide eyewash and solvent impervious apron if body contact may occur.

**Hygienic Practices:** Remove and wash contaminated clothing before re-use.

---

### Section 9 - Physical And Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Range:</td>
<td>170 - 180 F</td>
</tr>
<tr>
<td>Odor:</td>
<td>Strong Solvent</td>
</tr>
<tr>
<td>Color:</td>
<td>Tan</td>
</tr>
<tr>
<td>Solubility in H2O:</td>
<td>Negligible</td>
</tr>
<tr>
<td>Freeze Point:</td>
<td>Not Established</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>70 mm Hg @ 68 F</td>
</tr>
<tr>
<td>Physical State:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point, F:</td>
<td>21 F. Minimum</td>
</tr>
<tr>
<td>Lower Explosive Limit, %:</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

Vapor Density: Heavier Than Air  
Odor Threshold: Not Established  
Evaporation Rate: Faster Than n-Butyl Acetate  
Specific Gravity: 0.88  
pH: Not Established  
Viscosity: Not Established  
Flammability: Flammable  
Method: (Seta Closed Cup)  
Upper Explosive Limit, %: Not Determined

When reported, vapor pressure of this product has been calculated theoretically based on its constituent makeup and has not been determined experimentally.

(See section 16 for abbreviation legend)

### Section 10 - Stability And Reactivity

**Conditions To Avoid:** Excessive heat and freezing. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

**Incompatibility:** Incompatible with strong bases and oxidizing agents. Avoid contact with strong acids and oxidizable organic materials in the presence of heat. Incompatible with open flames, hot surfaces and sources of ignition.

**Hazardous Decomposition Products:** Normal decomposition products, i.e., COx, NOx.

**Hazardous Polymerization:** Hazardous polymerization will not occur under normal conditions.

**Stability:** Stable under recommended storage conditions.

### Section 11 - Toxicological Information

<table>
<thead>
<tr>
<th>CASRN</th>
<th>Chemical Name</th>
<th>Product LD50: Not Determined</th>
<th>Product LC50: Not Determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78-93-3</td>
<td>Methyl ethyl ketone (MEK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>142-62-5</td>
<td>n-Heptane</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LD50**  
**LC50**

Rat: 49 mm/m3/4H  
Rat: 23500 mg/m3/8H  
Rat: 103 gm/m3/4H

**Significant Data with Possible Relevance to Humans:** None.
Section 12 - Ecological Information

Ecological Information: Ecological injuries are not known or expected under normal use.

Section 13 - Disposal Information

Disposal Information: Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste. Liquids cannot be disposed of in a landfill. Discarded material should be incinerated at a permitted facility. Do not re-use empty containers.

EPA Waste Code if Discarded (40 CFR Section 261): D001

Section 14 - Transportation Information

DOT Proper Shipping Name: Adhesives, containing a flammable liquid.
DOT Technical Name: N.A.
DOT Hazard Class: 3 Flammable liquid
Packing Group: III
Hazard Subclass: N.A.
DOT UN/NA Number: UN1133

Section 15 - Regulatory Information

CERCLA - SARA Hazard Category:
This product has been reviewed according to the EPA ‘Hazard Categories’ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:
Immediate Health Hazard, Chronic Health Hazard, Fire Hazard

SARA Section 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
</tr>
<tr>
<td>Methyl ethyl ketone (MEK)</td>
<td>78-93-3</td>
</tr>
</tbody>
</table>

Toxic Substances Control Act:
All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Heptane</td>
<td>142-82-5</td>
</tr>
</tbody>
</table>

New Jersey Right-to-Know:
The following materials are non-hazardous, but are among the top five components in this product:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polychlorinated Rubber</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>
Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polychlorinated Rubber</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Heat reactive phenolic resin</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16 - Other Information

**HMIS Ratings:**

- **Health:** 2
- **Flammability:** 3
- **Reactivity:** 0
- **Personal Protection:** X

**Volatile Organic Compounds (VOC), less water less exempts:** g/L: 705 lb/gal: 5.89 wt:wt%: 80

**Volatile Organic Compounds (VOC), less water less exempts, less LVP-VOCs:** wt:wt%: 80

**REASON FOR REVISION:** Periodic Update

**Legend:**

- N.A. – Not Applicable
- N.E. – Not Established
- N.D. – Not Determined
- VOC – Volatile Organic Compound
- PEL – Permissible Exposure Limit
- TLV – Threshold Limit Value
- CEIL – Ceiling Exposure Limit
- LD50 – Lethal Dose 50
- F – Degree Fahrenheit
- C – Degree Celsius
- ACGIH – American Conference of Governmental Industrial Hygienists
- SARA – Superfund Amendments and Reauthorization Act of 1986
- NJRTK – New Jersey Right-to-Know Law
- OSHA – Occupational Safety and Health Administration
- HMIS – Hazardous Materials Identification System
- NTP – National Toxicology Program
- STEL – Short Term Exposure Limit
- LD50 – Lethal Concentration 50
- MSDS – Material Safety Data Sheet
- CASRN – The Chemical Abstracts Service Registry Number

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. **NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS.** Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.