LIQUID RELEASE AGENT

This product appears in the following stock number(s):
19600

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: LIQUID RELEASE AGENT
General use: This product may be applied by dipping, brushing, or wiping to nonporous surfaces to prevent adhesion of polyurethanes, epoxies, and similar substances.
Chemical family: Silicone solution in aliphatic hydrocarbon.

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbr.</th>
<th>CAS No.</th>
<th>Weight percent</th>
<th>Exposure limits</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexane</td>
<td></td>
<td>110543</td>
<td>60-100</td>
<td>50 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td></td>
<td>110827</td>
<td>1-10</td>
<td>n/e</td>
<td>n/e</td>
</tr>
</tbody>
</table>

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview
Appearance, form, odor: Clear liquid with petroleum odor.

DANGER! Extremely Flammable. Eye, skin and respiratory irritant. May cause central nervous system effects.

Potential health effects
Primary routes of exposure: [ ] Skin contact [ ] Skin absorption [ ] Eye contact [ ] Inhalation [ ] Ingestion

Symptoms of acute overexposure:
Skin: This material may cause mild skin irritation. Prolonged or repeated contact may cause dermatitis.
Eyes: Irritant.
Inhalation:
Inhalation of vapors may cause respiratory irritation or discomfort such as nausea, headache, or weakness.
Inhalation of concentrations above the recommended limits may cause temporary central nervous system depression with anesthetic effects such as dizziness, headache, incoordination and loss of consciousness or temporary alteration of the heart's electrical activity (cardiac arrhythmia). Inhalation of respirable aerosols of the release agent in this product may cause serious toxic effects in the lungs. Gross overexposure may be fatal.

Ingestion:
Ingestion of excessive quantities may cause irritation of the digestive tract, nausea, and Central Nervous System Depression.

Effects of chronic overexposure:

Carcinogenicity -- OSHA regulated: No  ACGIH: No  National Toxicology Program: No
International Agency for Research on Cancer: No
Cancer-suspect constituent(s): None

Medical conditions which may be aggravated by exposure:
Preexisting diseases of the central nervous or cardiovascular system may have increased susceptibility to the toxicity of excessive exposure.

4. FIRST AID MEASURES

First aid for eyes:
Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get medical attention if irritation persists.

First aid for skin:
Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for ingestion:
Do NOT induce vomiting unless instructed by a physician. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get immediate medical attention.

Note to physician:
Because of possible disturbance of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used only in situations of emergency life support.

5. FIRE FIGHTING MEASURES

General fire and explosion characteristics:
Material will readily ignite at ambient temperatures. Material can accumulate static charges and incendiary electrical discharge.

Extinguishing media:
- [ ] Water
- [ ] Carbon dioxide
- [ ] Dry chemical
- [ ] Foam
- [ ] Alcohol foam

Flash Point (°F): >0 F  Method: TCC
Explosive limits in air (percent) --  Lower: 1.8 (approx.)  Upper: 11.6

Special firefighting procedures:
Use water spray to keep containers cool. Firefighters should wear self-contained breathing apparatus in areas where high concentrations of the solvent vapors could be produced by evaporation.
Unusual fire and explosion hazards:
The liquid or vapor may settle in low areas or travel some distance along the surface to ignition sources where they may ignite or explode. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous, they may explode. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition.

Hazardous products of combustion:
Oxides of carbon and nitrogen, other unknown organic chemicals.

6. ACCIDENTAL RELEASE MEASURES

Spill control:
Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:
Dike, contain and absorb with suitable, non-combustible material.

Cleanup:
For large spills, pump to storage/salvage vessels. Soak up residue with a suitable absorbent and dispose of properly (RCRA hazardous waste).

Special procedures:
Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Use non-sparking tools.

7. HANDLING AND STORAGE

Handling precautions:
Avoid breathing vapors. Avoid contact with skin, eyes, or clothing. Close container after each use. Ground container when pouring. Keep away from heat, flame or sparks. Use non-sparking tools. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

Storage:
Keep in a cool, dry, well ventilated area, away from all sources of ignition. Keep container tightly closed and otherwise in accordance with NFPA regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:
Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls:
Keep container tightly closed. Observe label precautions. Have emergency eye wash and safety shower present.

Personal protective equipment

Eye and face protection:
Chemical goggles if liquid contact is likely, or safety glasses with side shields.

Skin protection:
Chemical-resistant gloves and other protective gear as needed to prevent skin contact.

Respiratory protection:
None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved cartridge respirator, dust/particle respirator during grinding/sanding operations, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>0.72</td>
</tr>
<tr>
<td>Melting point (°F)</td>
<td>n/d</td>
</tr>
<tr>
<td>Boiling point (°F)</td>
<td>150-158</td>
</tr>
<tr>
<td>Vapor pressure (mmHg)</td>
<td>140 at 68 °F</td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>4</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate = 1)</td>
<td>8.1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>insoluble</td>
</tr>
<tr>
<td>pH (5% solution or slurry in water)</td>
<td>n/d</td>
</tr>
<tr>
<td>Percent volatile by volume</td>
<td>n/d</td>
</tr>
<tr>
<td>Percent solids by weight</td>
<td>n/d</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid:
Keep product away from sources of ignition such as heat, sparks, pilot lights, static electricity, and open flames.

Incompatible materials:
Strong oxidizing agents

Hazardous products of decomposition:
Oxides of carbon, silicone dioxide, formaldehydes, and traces of incompletely burned carbon compounds.

Conditions under which hazardous polymerization may occur:
None

11. TOXICOLOGICAL INFORMATION

Acute oral effects:  
LD50 (rat): No data available.

Acute dermal effects:  
LD50 (rabbit): No data available.

Acute inhalation effects:  
LC50 (rat): No data available.  
Exposure: hours.

Eye irritation:  
No data.

Subchronic effects:
Carcinogenicity, teratogenicity, and mutagenicity:
No data.

Other chronic effects:
No data.

Toxicological information on hazardous chemical constituents of this product:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Oral LD50 (rat)</th>
<th>Dermal LD50 (rabbit)</th>
<th>Inhalation LC50 4hr, (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexane</td>
<td>28710 mg/kg</td>
<td>n/d</td>
<td>n/d</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>n/d</td>
<td>n/d</td>
<td>n/d</td>
</tr>
</tbody>
</table>

n/d = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:
No data.

Mobility and persistence:
No data.

Environmental fate:
No data.

13. DISPOSAL CONSIDERATIONS

Waste management recommendations:
Do not dispose of in a landfill. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Hexanes solution
Technical name : N/A
Hazard class : 3
UN number: 1208
Packing group: II
Emergency Response Guide no.: 128
IMDG page number: N/A
Other: N/A
15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA
All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:
D001

Regulatory status of hazardous chemical constituents of this product:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Extremely Hazardous*</th>
<th>Toxic Chemical**</th>
<th>CERCLA RQ (lbs)</th>
<th>TSCA 12B Export Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexane</td>
<td>No</td>
<td>Yes</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>No</td>
<td>Yes</td>
<td>0.0</td>
<td>Not required</td>
</tr>
</tbody>
</table>

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -- Fire hazard -

Canadian regulations

WHMIS hazard class(es) : B2;D2B
All components of this product are on the Domestic Substances List.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

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