1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: DUCO CEMENT
General use: Adhesive
Chemical family: Nitrocellulose solution

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Abbr.</th>
<th>Weight%</th>
<th>ACGIH: TLV-TWA</th>
<th>OSHA PEL:</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>n/e</td>
<td>70-80</td>
<td>500 ppm; 1188 mg/m³</td>
<td>1000 ppm TWA; 2400 mg/m³ TWA</td>
<td>750 ppm (Canada)</td>
</tr>
<tr>
<td>CELLULOSE NITRATE</td>
<td>n/e</td>
<td>10-20</td>
<td>n/e</td>
<td>n/e</td>
<td>n/e</td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>IPA</td>
<td>&lt;5</td>
<td>200 ppm TWA ACGIH</td>
<td>400 ppm TWA; 980 mg/m³ TWA</td>
<td>400 ppm TWA (Canada)</td>
</tr>
<tr>
<td>1-METHOXY-2-PROPANOL ACETATE</td>
<td>PGMEA</td>
<td>&lt;3</td>
<td>n/e</td>
<td>n/e</td>
<td>50 ppm AIHA-WEEL</td>
</tr>
<tr>
<td>CAMPHOR</td>
<td>n/e</td>
<td>&lt;3</td>
<td>2 mg/m³ TWA</td>
<td>2 ppm Canada</td>
<td></td>
</tr>
<tr>
<td>DICYCLOHEXYL PHTHALATE</td>
<td>n/e</td>
<td>&lt;3</td>
<td>n/e</td>
<td>n/e</td>
<td>n/e</td>
</tr>
<tr>
<td>TRADE SECRET (Non-hazardous) MIXTURE</td>
<td>n/e</td>
<td>Balance</td>
<td>n/e</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. HAZARDOUS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Amber liquid with solvent odor

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

Potential health effects

Primary Routes of Exposure: Eye and skin contact, ingestion, inhalation

Symptoms of acute overexposure

Skin: Irritant. Prolonged absorption may cause damage to blood, kidneys and nervous system. Causes drying of the skin.
Eyes: Moderate eye irritant (stinging, burning sensation, tearing, redness, swelling)
**Inhalation:** Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

**Ingestion:** May cause gastric distress (nausea, vomiting, diarrhea). May produce nervous system effects such as feeling of weakness, unsteady walk, and dilation of blood vessels. Aspiration (breathing) of vomitus into lungs may result in pneumonitis.

**Effects of Chronic Exposure:** May cause central nervous system effects. Animals exposed to acetone over long periods of time developed eye and kidney damage. 

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight%</th>
<th>NTP</th>
<th>ACGIH Carcinogens</th>
<th>IARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 67-64-1</td>
<td>70-80</td>
<td>Not known</td>
<td>A4 - Not Classifiable as a Human Carcinogen</td>
<td></td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL 87-63-0</td>
<td>65-75</td>
<td>A4</td>
<td>A4 Not Classifiable as a human carcinogen</td>
<td>Group 3 Monograph 71, 1999; Supp.7, 1987; Monograph 15, 1977</td>
</tr>
<tr>
<td>CAMPHOR 76-22-2</td>
<td>&lt;3</td>
<td>A4</td>
<td>A4 Not Classifiable as a human carcinogen</td>
<td></td>
</tr>
</tbody>
</table>

**Medical Conditions Recognized as Being Aggravated by Exposure:**
Persons with preexisting respiratory, liver, kidney, eye or skin diseases may be adversely affected.

**Other:**
See Section 11

### 4. FIRST AID MEASURES

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Skin Contact:** Wash with soap and water. Obtain medical attention.

**Inhalation:** If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**Ingestion:** Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, hold the victim’s head lower than hips to prevent aspiration.

### 5. FIRE FIGHTING MEASURES

**General fire and explosion characteristics:** Extremely flammable.

**Recommended Extinguishing Media:** Carbon dioxide, Dry chemical, foam

**Flash point:** -4°F  
**Method:** TCC

**Lower Explosive Limit:** 0.6%  
**Upper Explosive Limit:** 13.1%

**Special Fire-Fighting Procedures:** Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers.

**Unusual Fire/Explosion Hazards:**
Dry nitrocellulose resin is extremely flammable and burns explosively. Avoid friction and impact on dry resin.

**Hazardous Products of Combustion:**
Oxides of carbon, Oxides of nitrogen
6. ACCIDENTAL RELEASE MEASURES

**Spill Control:** Avoid personal contact. Eliminate ignition sources. Ventilate area. Evacuate area. Wear the appropriate personal protective equipment.

**Containment:** Dike, contain and absorb with clay, sand or other suitable material

**Cleanup:** For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

**Special procedures:** Prevent spill from entering drainage/sewer systems, waterways and surface water. Collect run-off water and transfer to drums or tanks for later disposal. Notify local health authorities and other appropriate agencies if such contamination occurs. Use non-sparking tools.

7. HANDLING AND STORAGE

**Handling precautions:** Extremely flammable!. Avoid breathing vapors or mists. Avoid contact with the skin and the eyes. Wash thoroughly after handling. Ground container when pouring. Do not use near heat, sparks and open flame. 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. Avoid friction and impact upon the cured material (nitrocellulose).

**Storage:** Store away from heat. Keep in cool and dark place. Avoid direct sunlight. Keep containers closed when not in use. Maintain air space in storage containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:**

**Ventilation:**
General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.

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

**Personal protective equipment**

**Eye and face protection:** Full face shield with chemical goggles if liquid contact is likely, or safety glasses with side shields

**Skin protection:** Chemical-resistant gloves (i.e. butyl) and other gear as required to prevent skin contact.

**Respiratory protection:** An approved respirator (i.e.NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>0.87</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>n/d</td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>185 @ 68°F</td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td>7% by weight</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>132°F</td>
</tr>
<tr>
<td><strong>Vapor Density (Air=1)</strong></td>
<td>&gt;1</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Slower than ether</td>
</tr>
<tr>
<td><strong>Solubility in water</strong></td>
<td>Slight</td>
</tr>
<tr>
<td><strong>pH (5% solution or slurry in water)</strong></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 away from heat, sparks and flame. Avoid allowing unmodified resin to become dry, avoid impact and friction.

Incompatibilities: Avoid contact with bases and strong oxidizers, Acids, Amines

Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen

Conditions under which hazardous polymerization may occur: None.

### 11. TOXICOLOGICAL INFORMATION

Eye Contact: No data available.

Subchronic effects: No data available.

Carcinogenicity, teratogenicity and mutagenicity: In response to a TSCA test rule, several studies of IPA have now been completed. The studies and their are as follows: 1) Both mutagenicity studies, the mouse micronucleus and CHO assays, were negative. 2) Rat and rabbit oral teratogenicity and developmental toxicology: a) there was no evidence that IPA caused teratogenicity in rats or rabbits. b) Developmental toxicity was seen in rats at 1200 mg/kg (evidenced by body weight) while no developmental toxicity was seen in the rabbit study. For rats, the NOAEL was 400 mg/kg; for rabbits 480 mg/kg. This work also identified pregnant rabbits to be approximately eight times more sensitive to IPA's lethal effects than non-pregnant rabbits.

Other chronic effects: In rat inhalation neurotoxicity and oral developmental neurotoxicity studies, there was no evidence that IPA caused neurotoxicity in adults (max dose 5000 ppm) or offspring (max dose 1200 ppm).

Toxicological information on hazardous chemical constituents of this product:

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50 (rat)</th>
<th>Dermal LD50 (rabbit)</th>
<th>Inhalation LC50 4hr (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 67-64-1</td>
<td>5800 mg/kg</td>
<td>n/d</td>
<td>50100 mg/m³/8hr</td>
</tr>
<tr>
<td>CELLULOSE NITRATE 9004-70-0</td>
<td>&gt;5 g/kg</td>
<td>n/d</td>
<td>n/d</td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL 67-63-0</td>
<td>5045 mg/kg</td>
<td>12800 mg/kg</td>
<td>16000 mg/kg/8hr</td>
</tr>
<tr>
<td>1-METHOXY-2-PROPANOL ACETATE 108-65-6</td>
<td>8532 mg/kg</td>
<td>&gt;5000 mg/kg</td>
<td>n/d</td>
</tr>
<tr>
<td>CAMPHOR 76-22-2</td>
<td>mouse 1310 mg/kg</td>
<td>n/d</td>
<td>n/d</td>
</tr>
<tr>
<td>DICYCLOHEXYL PHTHALATE 84-61-7</td>
<td>30 mL/kg</td>
<td>n/d</td>
<td>n/d</td>
</tr>
<tr>
<td>TRADE SECRET (Non-hazardous)</td>
<td>n/d</td>
<td>n/d</td>
<td>n/d</td>
</tr>
<tr>
<td>MIXTURE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*n/d* = not determined

### 12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available.

Mobility and persistence: No data available.

Environmental fate: No data available.

### 13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Recommended Method of Disposal: Do not dispose of in a landfill. Incineration is the preferred method of disposal.

US EPA Waste Number: D001.
14. TRANSPORT INFORMATION

Proper shipping name: *Adhesives

Technical name: N/A

Hazard class: 3

UN/ID Number: 1133

Packing group: II

Emergency Response Guide no: 128

Other: *Depending upon the size and type of container, this material may be reclassified as "Consumer Commodity, ORM-D" for shipments within the United States, or "Limited Quantity" elsewhere. Refer to the appropriate regulation.

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>Component</th>
<th>Extremely Hazardous*</th>
<th>Toxic Chemical**</th>
<th>CERCLA RQ (lbs)</th>
<th>12B EXPORT NOTIFICATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 87-64-1</td>
<td>No</td>
<td>No</td>
<td>5000 pounds (2270 kg)</td>
<td>Required</td>
</tr>
<tr>
<td>CELLULOSE NITRATE 9004-70-0</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL 67-63-0</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Required</td>
</tr>
<tr>
<td>1-METHOXY-2-PROPANOL ACETATE 108-65-6</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>CAMPHOR 76-22-2</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>DICYCLOHEXYL PHTHALATE 84-61-7</td>
<td>No</td>
<td>No</td>
<td>0.0</td>
<td>Not required</td>
</tr>
<tr>
<td>TRADE SECRET (Non-hazardous) MIXTURE</td>
<td>No</td>
<td>No</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

California regulations: For purposes of the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65), this product does not contain any chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Canadian Regulations

WHMIS Hazard Class: B2 FLAMMABLE LIQUIDS, D2A VERY TOXIC MATERIALS, D2B TOXIC MATERIALS, All components of this product are on the Domestic Substances List

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) rating:
Health 2* Flammibility 3 Physical Hazard 2
ITW Consumer - Devcon/Versachem

HMIS is a registered trademark of the National Paint and Coatings Assn.

**Revision Date:** November/03/2008  
**Revision Number:** 4

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