MATERIAL SAFETY DATA SHEET

Updated 8/09/09

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product (material) name : Nail Hardener
Other names : Nail hardening lacquer, nail strengthener
Recommended use : To harden nails
Emergency Contact: 0415 415 998 or contact Poisons Information Centre 131126

SECTION 2 HAZARDS IDENTIFICATION

Hazard classification and statement of overall hazardous or dangerous nature : HAZARDOUS SUBSTANCE; DANGEROUS GOODS Class 3 Flammable Liquids PG II; Classified as Hazardous according to the criteria of NOHSC.

Risk phrase(s) :
F  = Flammable
R11  = Highly Flammable
Xi  = Irritant
R36  = Irritating to eyes
R66  = Repeated exposure may cause skin dryness or cracking
R67  = Vapours may cause drowsiness or dizziness

Safety phrase(s) :
S(2)  = Keep out of reach of children
S16  = Keep away from sources of ignition. No smoking.
S23  = Avoid contact with skin.
S25 = Avoid contact with eyes.
S26 = In case of contact with eyes, rinse immediately with running water for at least 15 minutes or until advised to stop by a doctor.
S29 = Do not empty into drains.
S33 = Take precautionary measures to prevent static discharges.

SUSDP Safety Directions: DO NOT SWALLOW. Avoid breathing vapour and avoid contact with the eyes and skin.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Details</th>
<th>%</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ACETATE</td>
<td>Range 2</td>
<td>Solvent</td>
</tr>
<tr>
<td><strong>Chemical Name:</strong> Ethyl acetate</td>
<td>10-30%</td>
<td></td>
</tr>
<tr>
<td>CAS Number: 000141-78-6</td>
<td>Synonyms: Ethyl acetate; Acetic acid ethyl ester; Ethyl ethanoate; Acetic acid, ethyl ester</td>
<td>Range 2 10-30% Solvent</td>
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<td>----------------------------------------</td>
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<tr>
<td><strong>BUTYL ACETATE</strong></td>
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<tr>
<td>Chemical Name: Butyl acetate</td>
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<td></td>
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<tr>
<td>CAS Number: 000123-86-4</td>
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<tr>
<td>Synonyms: n-Butyl acetate; Butyl acetate; Acetic acid, butyl ester</td>
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<tr>
<td><strong>NITROCELLULOSE</strong></td>
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<tr>
<td>Chemical Name: Nitrocellulose</td>
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<td></td>
</tr>
<tr>
<td>CAS Number: 009004-70-0</td>
<td></td>
<td>Film former 10-30%</td>
</tr>
<tr>
<td>Synonyms: Nitrocellulose; Cellulose, nitrate; Collodion; Flexible collodion; Pyroxylin; Collodion, flexible; Nitrocellulose solution</td>
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<tr>
<td><strong>TOSYLAMIDE / FORMALDEHYDE RESIN</strong></td>
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<tr>
<td>Chemical Name: Tosylamide-formaldehyde resin</td>
<td></td>
<td>Range 3 3-10% Resin</td>
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<td>CAS Number: 025035-71-6</td>
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<td>Synonyms: Tosylamide/formaldehyde resin; Benzenesulfonamide, 4-methyl-, polymer with formaldehyde; 4-Toluenesulfonamide-formaldehyde resin; Santolite MS</td>
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<tr>
<td><strong>ACETYL TRIBUTYL CITRATE</strong></td>
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<tr>
<td>Chemical Name: Acetyl Tributyl Citrate</td>
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<td>Range 3 3-10% Solvent</td>
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<td>CAS Number: 77-90-7</td>
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<tr>
<td>Synonyms: Nil</td>
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<tr>
<td><strong>ISOPROPYL ALCOHOL</strong></td>
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<tr>
<td>Chemical Name: Isopropyl alcohol</td>
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<td>Range 3 3-10% Solvent</td>
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<td>CAS Number: 000067-63-0</td>
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<tr>
<td>Synonyms: 1-Methylethanol; 2-Hydroxypropane; 2-Propanol; 2-Propyl alcohol; Dimethylcarbinol; Isopropanol; Isopropyl alcohol; Isopropyl alcohol</td>
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<td><strong>STEARALKONIUM BENTONITE</strong></td>
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<td>Chemical Name: Stearalkonium bentonite</td>
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<td>Range 4 1-3% Suspending agent</td>
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<tr>
<td>Synonyms: Stearalkonium bentonite</td>
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<td><strong>STYRENE ACRYLATES COPOLYMER</strong></td>
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<tr>
<td>Chemical Name: Styrene acrylates copolymer</td>
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<td>Range 4 1-3% Plasticizer</td>
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<td>CAS Number: 9010-92-8</td>
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<tr>
<td>Synonyms: Styrene acrylates copolymer</td>
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<td><strong>BENZOPHENONE 1</strong></td>
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<td>Chemical Name: Benzophenone-1</td>
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<td>Range 5 &lt;1% UV absorber</td>
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<td>CAS Number: 000131-56-6</td>
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<tr>
<td>Synonyms: 2,4-Dihydroxybenzophenone; Benzophenone, 2,4-dihydroxy-; Methanone, (2,4-dihydroxyphenyl)phenyl-; (2,4-Dihydroxyphenyl)phenylmethylene; Benzoresorcinol; 4-Benzoyl resorcinol; Benzophenone-1</td>
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<td><strong>SILICA</strong></td>
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<tr>
<td>Chemical Name: Silica</td>
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<td>Range 5 &lt;1% Plasticizer</td>
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<td>CAS Number: 7631-86-9</td>
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</tr>
<tr>
<td>Synonyms: Silica</td>
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</table>
SECTION 4 FIRST AID MEASURES

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label where applicable. If poisoning occurs seek the advice of a doctor or contact Poisons Information Centre 13 11 26.

Symptoms that may arise if the product is mishandled are:

**ACUTE EFFECTS**

**SWALLOWED:** Unlikely under normal circumstances but ingestion may result in nausea, vomiting, headaches, drowsiness, dizziness and central nervous system depression. A large dose may cause coma and death.

**EYE:** Liquid or vapour may cause irritation.

**SKIN:** May cause irritation.

**INHALATION:** Exposure to vapour may cause irritation of mucous membrane and respiratory tract. Inhalation of high concentration of vapour may cause central nervous system depression.

**CHRONIC EFFECTS**

Repeated or prolonged exposure to skin may cause defatting of the skin leading to irritation and dermatitis.

Description of necessary measures according to routes of exposure:

**SWALLOWED:** IF conscious immediately rinse mouth with water & give water to drink. Do not induce vomiting. If vomiting occurs rinse mouth and administer more water. Keep patient warm. **Seek immediate medical assistance.**

**EYE:** Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Seek medical assistance. If in eyes, wash out immediately with water and rinse eyes with running water for at least 15 minutes or until advised to stop by a doctor.

**SKIN:** Wash with soap & water. Remove contaminated clothing & wash before re-use. If irritation, swelling, redness or blistering occurs seek medical assistance. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

**INHALATION:** Remove from contaminated area. Apply artificial respiration if not breathing. Remove affected person from contaminated area. Avoid becoming a casualty. Seek medical attention or special treatment as required.
**SWALLOWED:** If swallowed do not induce vomiting, give water.

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**SECTION 5 FIRE FIGHTING MEASURES**

Flammable liquid, vapours may travel to source of ignition and flash back. Heat can cause polymerisation with rapid release of energy which may rupture closed containers explosively. Spontaneous polymerization may occur on prolonged storage. When heated above flash point, releases vapour. When mixed with air and exposed to ignition source, vapour can burn in open or explode if confined. Vapours may be heavier than air. May travel long distances along ground before igniting or flashing back to vapour source.

Never use welding or cutting torch on or near drum even if empty (residues) because product can ignite explosively. Fire fighters to wear self-contained breathing apparatus with a full face piece operated in the positive pressure mode and full protective clothing when fighting fire.

Flash Point: \(4.4\% \text{ by calculation}\)

Flammable Limit: \((\text{vol } \%)\ LEL: 2.2\% \ UEL: 19\%\)

Auto-ignition Temperature: Not determined.

Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical Powder and Water Fog. Water maybe ineffective unless used as a fine spray or fog. Keep adjacent drums cool with water spray. Alcohol resistant foam, carbon dioxide or dry chemical powder. Water may be ineffective. Water spray may be used to keep fire-exposed containers cool until fire is out.

Hazards from combustion products: Not known

Special protective precautions and equipment for fire fighters: Fire fighters to wear self contained breathing apparatus & full protective gear.

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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Emergency procedures: Evacuate area. Eliminate sources of ignition. Use self contained breathing apparatus and protective clothing. Dike and absorb with inert material (ie sand, soda, ash). Transfer to proper containers for disposal, use non-sparking tools. Keep spills out of sewers & open bodies of water. Remove saturated clothing and wash affected skin areas with soap and water. Wear proper protective equipment. Contain and absorb using sand, earth or other inert material. Stop spill at source if possible. Prevent from entering drains, sewers, streams or other bodies of water. Wash down area with water. If contamination of sewers or waterways has occurred advise the local emergency services. Transfer spilled material into clean labeled container for disposal.

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**SECTION 7 HANDLING AND STORAGE**
No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label where applicable. Symptoms that may arise if the product is mishandled are:

Classified as a Class 3 Flammable Liquid for storage or transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Refer to State Regulations for storage or transport requirements.

**Precautions for safe handling** : Use only with adequate ventilation. High vapour concentrations may irritate the respiratory system. Store in a cool, dry place out of direct sunlight. Keep container closed when not in use. Maintain air space inside storage containers. Store away from sources of heat, sparks, flames or other sources of ignition. In case of accident follow spill or fire-fighting procedures above.

**Conditions for safe storage, including any incompatibilities** : Incompatibility materials to avoid, reducing and oxidising agents and UV light. Hazardous decomposition or by products include Oxides of carbon when burned. Store away from sources of heat or ignition. Store in a cool place away form direct sunlight. Keep containers securely sealed and protected against physical damage. Earth and bond containers and vehicles to filling points when dispensing pouring or pumping as vapours may ignite due to static electricity.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

As published by Worksafe Australia: TWA: 400 ppm (time weighted average concentration).

Biological limit values : Not known

Engineering controls : Take precautionary measures to prevent static discharges. General (mechanical) room ventilation and local exhaust ventilation is recommended. All ventilation equipment must be fitted with flame and explosion proof electrical fittings.

Personal protective equipment : Liquid concentrations may cause skin irritation. Repeated or prolonged contact may cause allergic skin rashes, itching and swelling which becomes evident on re-exposure to this product. Vapour concentrations may cause irritation of eyes. Liquid contact with eyes can cause irritation and possible corneal damage. Wear gloves, face shield or goggles and overalls. Always wash hands before smoking, eating or drinking.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Appearance (colour, physical form, shape) : Various coloured viscous liquids

Odour : Strong solvent odour

pH : not determined

Vapour Density (air=1) : 3.0

Vapour Pressure (20°C) : 73mmHg

Boiling point/range : 77.1°C-338°C

Melting point : -83°C
Solubility in water : 10% v/v (25°C)
Specific Gravity (20°C) : 0.95-1.02
Flash Point (closed cup) : -4°C
Flammability Limits (%) LEL : 2.0
Flammability Limits (%) UEL : 11.4
Autoignition Temp (C) : 427°C

OTHER PROPERTIES
Molecular Weight : 88.1
Molecular Formula : CH3CO2C2H5

SECTION 10 STABILITY AND REACTIVITY
Chemical stability : Stable
Conditions to avoid : Do not mix with Class 5 Oxidising Agents; Do not store over 49°C
Incompatible materials : reducing and oxidising agents and UV light
Hazardous decomposition products : Toxic gasses, including oxides of carbon (CO2) and nitrogen (NO2)
Hazardous reactions : See above

SECTION 11 TOXICOLOGICAL INFORMATION
Health effects from the likely routes of exposure : None of the components of the material are listed as Carcinogens. Signs and symptoms of exposure; liquid or high vapour concentration can irritate eyes and respiratory system and cause skin rashes. Prolonged exposure can lead to headaches, nausea, drowsiness and unconsciousness.

TOXICITY
LD50 oral (rat): 5600 mg/kg
LC50 inhalation (rat): 56000 mg/l/4hr
LD50 dermal (rabbit): >18000 mg/kg

SECTION 12 ECOLOGICAL INFORMATION
Ecotoxicity : Not known
Persistence and degradability : Not known
Mobility : Not known

SECTION 13 DISPOSAL CONSIDERATIONS
Refer to State Land Waste Management Authority

SECTION 14 TRANSPORT INFORMATION
UN Number : 1263
UN Proper Shipping Name : PAINT
Class and subsidiary risk : 3
Packing Group : II
Special precautions for user : See above
Hazchem Code : 2(Y)E

SECTION 15 REGULATORY INFORMATION
Regulatory status: Not classified as a poison according to the criteria of the SUSDP. Classified as Hazardous according to the criteria of the NOHSC.

SECTION 16 OTHER INFORMATION
Date of preparation or last revision of this MSDS : 8th September, 2009
CONTACT POINT: +61 7 5563 3222
EMERGENCY: +61 415 415 998

This MSDS has been prepared from current technical data and summarises at the date of issue our best knowledge of the health and safety information of the product, and in particular how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

End of MSDS Nail Hardener