1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE 425 INSTANT ADHESIVE known as 425 Assure(TM) Instant Adhesiv
IDH number: 135461
Item number: 42540
Region: Canada

Company address:
Henkel Canada Corporation
2515 Meadowpine Boulevard
Mississauga, Ontario L5N 6C3

Contact information:
Telephone: 905.814.6511
MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

Physical state: Liquid
Color: Blue
Odor: Sharp, Irritating

WHMIS hazard class: B.3, D.2.B

EMERGENCY OVERVIEW
WARNING: BONDS SKIN IN SECONDS. MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION. COMBUSTIBLE LIQUID AND VAPOR.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: Exposure to vapors above the established exposure limit results in respiratory irritation, which may lead to difficulty in breathing and tightness in the chest.

Skin contact: Bonds skin in seconds. May cause skin irritation. Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response is rare. Cyanoacrylates generate heat on solidification. In rare circumstances a large drop will burn the skin. Cured adhesive does not present a health hazard even if bonded to the skin.

Eye contact: Irritating to eyes. Causes excessive tearing. Eyelids may bond.

Ingestion: Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It is almost impossible to swallow.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders.

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl 2-cyanoacrylate</td>
<td>7085-85-0</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Ethylene di(acetate)</td>
<td>111-55-7</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Thickener</td>
<td>Proprietary</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
Skin contact: Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Peel or roll lips apart. Do not pull lips apart with direct opposing force.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrimary effect which will help to debond the adhesive. Keep eye covered until deboning is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate trapped behind the eyelid caused abrasive damage.

Ingestion: Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.

Notes to physician: Surgery is not necessary to separate accidentally bonded tissues. Experience has shown that bonded tissues are best treated by passive, non-surgical first aid. If rapid curing has caused thermal burns they should be treated symptomatically after adhesive is removed.

5. FIRE FIGHTING MEASURES

Flash point: 80 - 93 °C (176°F - 199.4 °F) Tagliabue closed cup

Autoignition temperature: Not determined

Flammable/Explosive limits - lower: Not determined

Flammable/Explosive limits - upper: Not determined

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode.

Unusual fire or explosion hazards: None

Hazardous combustion products: Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

Sensitivity to Mechanical Impact: Not available.

Sensitivity to static discharge: Not available.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Ventilate area. Do not allow product to enter sewer or waterways.

Clean-up methods: Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.
7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.

Storage: Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

Shelf Life Statement: Not available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl 2-cyanoacrylate</td>
<td>0.2 ppm TWA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Ethylene di(acetate)</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Thicker</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering controls: Use positive down-draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

Respiratory protection: In circumstances where exposure to cyanoacrylate vapors cannot be controlled by ventilation a NIOSH approved respirator with an organic vapor cartridge can be used. When such a respirator is used cartridge function must be monitored frequently as the cyanoacrylate vapor will polymerize and the filter will become blocked. For that reason we strongly recommend that adequate ventilation is in place so a respirator will not be needed.

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

Skin protection: Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state:             | Liquid    |
| Color:                      | Blue      |
| Odor:                       | Sharp, Irritating |
| Odor threshold:             | Not available. |
| pH:                         | Not applicable |
| Vapor pressure:             | < 0.2 mm hg |
| Boiling point/range:        | > 149 °C (> 300.2 °F) |
| Melting point/ range:       | Not determined |
| Specific gravity:           | 1.1 at 23.9 °C (75.02 °F) |
| Vapor density:              | 3 Approximately |
| Flash point:                | 80 - 93 °C (176°F - 199.4 °F) Tagliabue closed cup |
| Flammable/Explosive limits - lower: | Not determined |
| Flammable/Explosive limits - upper: | Not determined |
| Autoignition temperature:   | Not determined |
| Evaporation rate:           | Not available. |
| Solubility in water:        | Polymerises in presence of water. |
| Partition coefficient (n-octanol/water): | Not applicable |
| VOC content:                | < 2 %; < 20 g/l (California SCAQMD Method 316B) (Estimated) |
10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Hazardous reactions: Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

Hazardous decomposition products: Irritating and toxic gases or fumes may be released during a fire.

Incompatible materials: Water, amines, alkalis and alcohols.

Conditions to avoid: Spontaneous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral product toxicity:
LD50 (rat) > 5,000 mg/kg (Estimated)

Acute dermal product toxicity:
LD50 (rabbit) > 2,000 mg/kg (Estimated)

Toxicologically synergistic products: Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen (Specifically Regulated)</th>
<th>ACGIH Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl 2-cyanoacrylate</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Ethylene di(acetate)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Thickener</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>LD50s and LC50s</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl 2-cyanoacrylate</td>
<td>None</td>
<td>Irritant, Allergen, Respiratory</td>
</tr>
<tr>
<td>Ethylene di(acetate)</td>
<td>Oral LD50 (RAT) = 6.86 g/kg</td>
<td>Central nervous system, Irritant, Kidney</td>
</tr>
<tr>
<td>Thickener</td>
<td>None</td>
<td>Irritant</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

Canada Transportation of Dangerous Goods - Ground

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division: 9
Identification number: UN 3334
Packing group: III
Exceptions: Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.
Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: Reviewed SDS. Reissued with new date.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the MSDS contains all the information required by the CPR.

Prepared by: Catherine Bimler, Regulatory Affairs Specialist

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