Section 1 - Identification of The Material and Supplier

H.B. Fuller Company
16-20 Red Gum Drive
Dandenong South VIC 3175

Phone: 1800 423 855 (office hours)
customer.service@hbfuller.com

Chemical nature: Resin system in a suitable solvent blend containing black colourant
Trade Name: Fullatak C519
Product Use: Brush grade contact adhesive.
Creation Date: January, 2016
This version issued: May, 2017 and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature
This product is classified as: Xn, Harmful. Xi, Irritating. F+, Highly Flammable. Hazardous according to the criteria of SWA.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.


Safety Phrases: S16, S23, S29, S33, S46, S51, S62, S1/2, S24/25, S36/37/39. Keep away from sources of ignition - No smoking. Do not breathe vapours. Do not empty into drains. Take precautionary measures against static discharges. If swallowed, contact a doctor or Poisons Information Centre immediately and show this SDS or label. Use only in well ventilated areas. If swallowed, do not induce vomiting: seek medical advice immediately and show this SDS. Keep locked up and out of reach of children. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection.

SUSMP Classification: S5
ADG Classification: Class 3: Flammable liquids.
UN Number: 1133, ADHESIVES containing flammable liquid

GHS Signal word: DANGER

HAZARD STATEMENT:
H225: Highly flammable liquid and vapour.
AUH066: Repeated exposure may cause skin dryness or cracking.
H315: Causes skin irritation.
H320: Causes eye irritation.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.
H413: May cause long lasting harmful effects to aquatic life.

PREVENTION
P102: Keep out of reach of children.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233: Keep container tightly closed.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing fumes, mists, vapours or spray.
P262: Do not get in eyes, on skin, or on clothing.

SAFETY DATA SHEET

Issued by: HB Fuller Company  Phone: 1800 423 855 (office hours)
Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)
P264: Wash contacted areas thoroughly after handling.
P271: Use only outdoors or in a well ventilated area.
P273: Avoid release to the environment.
P281: Use personal protective equipment as required.

RESPONSE
P312: Call a POISON CENTRE or doctor if you feel unwell.
P364: Wash contaminated clothing and wash before reuse.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.
P370+P378: If skin irritation occurs: Get medical advice.
P374+P373: If eye irritation persists: Get medical advice.
P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used.

STORAGE
P405: Store locked up.
P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well ventilated place. Keep cool.

DISPOSAL
P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

Emergency Overview

Physical Description & Colour: Opaque yellowish liquid.
Odour: Characteristic odour.
Major Health Hazards: Exposure can cause respiratory tract and throat irritation, headaches, shortness of breath and symptoms similar to intoxication. Overexposure can produce severe central nervous system depression, coma and respiratory failure. Irritating to eyes and skin, possible risk of harm to the unborn child, repeated exposure may cause skin dryness or cracking, vapours may cause drowsiness and dizziness.

Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc.%</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>10-30</td>
<td>1185</td>
<td>2375</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>10-30</td>
<td>191</td>
<td>574</td>
</tr>
<tr>
<td>Pentane, 2-methyl- (Isohexane)</td>
<td>107-83-5</td>
<td>10-30</td>
<td>1760</td>
<td>3500</td>
</tr>
<tr>
<td>Non hazardous resins</td>
<td>secret</td>
<td>10-30</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td>secret</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term “peak” is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:
You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.
Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Any explosion will likely spread the fire to surrounding materials. Water spray may be used to cool drums involved in a fire, reducing the chances of an explosion. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Flash point: Approx -15°C

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Autoignition temperature: No data.

Flammability Class: Flammable Category 2 (GHS); Highly Flammable (AS1940).

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include butyl rubber, Teflon, PE/EVAL, Responder, polyvinyl alcohol. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Avoid using sawdust or other combustible material. Any electrical equipment should be non-sparking. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination and possible evaporation. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 2500kg or L of Dangerous Goods of Packaging Group II, you may be required to license the premises or notify your Dangerous Goods authority. If you have any
Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:


<table>
<thead>
<tr>
<th>SWA Exposure Limits</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>1185</td>
<td>2375</td>
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<tr>
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<td>191</td>
<td>574</td>
</tr>
<tr>
<td>Pentane, 2-methyl-</td>
<td>1760</td>
<td>3500</td>
</tr>
</tbody>
</table>

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: butyl rubber, Teflon, PE/EVAL, Responder, polyvinyl alcohol.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary. Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Physical Description &amp; colour:</th>
<th>amber liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour:</td>
<td>Characteristic odour.</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>Boils in a range 56-135°C at 100kPa</td>
</tr>
<tr>
<td>Freezing/Melting Point:</td>
<td>No specific data. Liquid at normal temperatures.</td>
</tr>
<tr>
<td>Volatiles:</td>
<td>73-77%</td>
</tr>
<tr>
<td>Vapour Pressure:</td>
<td>No data.</td>
</tr>
<tr>
<td>Vapour Density:</td>
<td>No data.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>0.82-0.84 g/ml at 25°C</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Some, but not all ingredients are soluble.</td>
</tr>
<tr>
<td>pH:</td>
<td>No data.</td>
</tr>
<tr>
<td>Volatility:</td>
<td>No data.</td>
</tr>
<tr>
<td>Odour Threshold:</td>
<td>No data.</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No data.</td>
</tr>
<tr>
<td>Coeff Oil/water Distribution:</td>
<td>No data.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>800-1200cps at 25°C</td>
</tr>
<tr>
<td>Autoignition temp:</td>
<td>No data.</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition. Handle and open containers carefully. Any electrical equipment in the area of this product should be flame proofed.

**Incompatibilities:** strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** Polymerisation reactions are unlikely; they are not expected to occur.
**Section 11 - Toxicological Information**

**Toluene, TOXICITY**
- Oral (human) LDLo: 50 mg/kg
- Oral (rat) LD50: 636 mg/kg
- Inhalation (human) TCLo: 100 ppm
- Inhalation (man) TCLo: 200 ppm
- Inhalation (rat) LC50: >26700 ppm/1h
- Dermal (rabbit) LD50: 12124 mg/kg

**IRRITATION**
- Skin (rabbit): 20 mg/24hr - Moderate
- Skin (rabbit): 500 mg - Moderate
- Eye (rabbit): 0.87 mg – Mild
- Eye (rabbit): 2mg/24h - SEVERE
- Eye (rabbit): 100 mg/30sec – Mild

Reports of chronic poisoning describe anaemia, decreased blood cell count and bone marrow hypoplasia. Liver and kidney damage may occur. Repeated or prolonged contact has a defatting action, causing drying, redness, dermatitis. Exposure to toluene may affect the developing foetus.

Aggravation of Pre-existing Conditions:
Persons with pre-existing skin disorders or impaired liver or kidney function may be more susceptible to the effects of toluene. Alcoholic beverage consumption can enhance the toxic effects of this substance.

There is no data to hand indicating any particular target organs.

Toluene is a SWA Class 3 Reproductive risk, possible risk of impaired fertility. This product is likely to cause decreased fertility in humans.

**Acetone, TOXICITY**
- Oral (man) TDLo: 2857 mg/kg
- Oral (rat) LD50: 5800 mg/kg
- Inhalation (human) TCLo: 500 ppm
- Inhalation (man) TCLo: 12000 ppm/4 hr
- Inhalation (man) TCLo: 10 mg/m3/6 hr
- Inhalation (rat) LC50: 50100 mg/m3/8 hr
- Dermal (rabbit) LD50: 20000 mg/kg

**IRRITATION**
- Eye (human): 500 ppm - Irritant
- Eye (rabbit): 3.95 mg - SEVERE
- Eye (rabbit): 20mg/24hr - Moderate
- Skin (rabbit): 395mg (open) - Mild
- Skin (rabbit): 500 mg/24hr - Mild

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact non-allergic dermatitis. This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitiser but is a defatting agent to the skin.

Ames Assay (S. typhimium): Negative
Chromosome Aberrations and Sister Chromatid Exchange Assays: Negative
Point Mutation in Mouse Lymphoma Cells: Negative
DNA Cell-binding Assay: Negative
There is no data to hand indicating any particular target organs.

Toluene is a SWA Class 3 Reproductive risk, possible risk of harm to the unborn child.

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**Potential Health Effects**

**Inhalation:**
**Short Term Exposure:** High vapour pressures may cause drowsiness and dizziness. In addition product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.
**Long Term Exposure:** Vapours may cause drowsiness and dizziness.

**Skin Contact:**
**Short Term Exposure:** This product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but if treated promptly, all should disappear once exposure has ceased.
**Long Term Exposure:** Repeated exposure may cause skin dryness or cracking.

**Eye Contact:**
**Short Term Exposure:** This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.
**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**
**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.
**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**
**SWA:** No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: Toluene is Class 3 - unclassifiable as to carcinogenicity to humans.
See the IARC website for further details. A web address has not been provided as addresses frequently change.

### Classification of Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone Conc&gt;=20%</td>
<td>Xi; R36</td>
</tr>
<tr>
<td>Toluene Conc&gt;=20%</td>
<td>Xn; R63; R48/20; R65; R38</td>
</tr>
<tr>
<td>Pentane, 2-methyl-</td>
<td>Con=&lt;20%; Xn; R65; R38</td>
</tr>
</tbody>
</table>

### Section 12 - Ecological Information

Insufficient data to be sure of status.

**Acetone:**
- BOD: 1.22g O₂/g (5 days)
- Fish: LC₅₀ rainbow trout: 5540mg/L
- Daphnia: EC₅₀ 10mg/L (24-48 hour)

Bioconcentration factor is 1, suggesting bioconcentration in aquatic organisms is low. This was calculated using an experimental Log Kow value of -0.24
Octanol/water partition coefficient: 0.58

### Section 13 - Disposal Considerations

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable in-house, consider controlled incineration, or contact a specialist waste disposal company.

### Section 14 - Transport Information

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

**UN Number:** 1133, ADHESIVES containing flammable liquid

**Hazchem Code:** 3YE

Special Provisions: None allocated

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

**Dangerous Goods Class:** Class 3: Flammable liquids.

**Packaging Group:** II

**Packaging Method:** P001, IBC02

Class 3 Flammable Liquids shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 2.1 (Flammable Gases where flammable liquids and flammable gases are both in bulk), 2.3 (Toxic Gases), 4.2 (Spontaneously Combustible Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances, except Flammable Liquid is nitromethane), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases except where the Flammable Liquids and Flammable Gases are in bulk), 2.2 (Non-Flammable Non-Toxic Gases), 4.1 (Flammable Solids), 4.3 (Dangerous When Wet Substances), 6 (Toxic Substances, where Flammable Liquid is nitromethane), 8 (Corrosive Substances), 9 (Miscellaneous Dangerous Goods), Foodstuffs or foodstuff empties.

### Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.
The following ingredients: Acetone, Toluene, Pentane, 2-methyl-, are mentioned in the SUSMP.

### Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

**Acronyms:**

- **ADG Code** Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
- **AICS** Australian Inventory of Chemical Substances
- **SWA** Safe Work Australia, formerly ASCC and NOHSC
- **CAS number** Chemical Abstracts Service Registry Number
- **Hazchem Code** Emergency action code of numbers and letters that provide information to emergency services especially firefighters
- **IARC** International Agency for Research on Cancer

**SAFETY DATA SHEET**

Issued by: HB Fuller Company
Phone: 1800 423 855 (office hours)
Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)
Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)
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http://www.kilford.com.au/ Phone (02)9251 4532