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 and mineral fillers in a suitable solvent system.
Trade Name: Fullatak SG690
Product Use: Wet environment synthetic grass adhesive.
Creation Date: November, 2015
This version issued: June, 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.

Risk Phrases: R11, R63, R36/38. Highly flammable. Possible risk of harm to the unborn child. Irritating to eyes and skin.
Safety Phrases: S16, S23, S29, S33, S36, S51, S24/25. Keep away from sources of ignition - No smoking. Do not breathe vapours. Do not empty into drains. Take precautionary measures against static discharges. Wear suitable protective clothing. Use only in well ventilated areas. Avoid contact with skin and eyes.

SUSMP Classification: None allocated.
ADG Classification: Class 3: Flammable liquids.
UN Number: 1133, ADHESIVES containing flammable liquid

GHS Signal word: DANGER

HAZARD STATEMENT:
H225: Highly flammable vapours.
H315: Causes skin irritation.
H320: Causes eye irritation.
H335: May cause respiratory irritation.
H361: Suspected of damaging fertility or the unborn child.
H413: May cause long lasting harmful effects to aquatic life.

PREVENTION
P102: Keep out of reach of children.
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.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas thoroughly after handling.
P273: Avoid release to the environment.
P281: Use personal protective equipment as required.

RESPONSE
P362: Take off 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.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P308+P313: If exposed or concerned: Get medical advice.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: 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**
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).

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**Emergency Overview**

**Physical Description & Colour:** White viscous liquid or paste.

**Odour:** Characteristic aromatic odour.

**Major Health Hazards:** irritating to eyes and skin, possible risk of harm to the unborn child.

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**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>Pentane, 2-methyl- (Iso-hexane)</td>
<td>107-83-5</td>
<td>10-30</td>
<td>1760</td>
<td>3500</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>5-10</td>
<td>350</td>
<td>655</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>5-10</td>
<td>191</td>
<td>574</td>
</tr>
<tr>
<td>Non hazardous resins</td>
<td>various</td>
<td>10-30</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td>various</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.

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**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:** Quickly and gently brush away excess particles. 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:** Quickly and gently brush particles from eyes. 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.

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**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. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. 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.

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Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** 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. Try to contain spills, minimise spillage entering drains or water courses.

**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:** About -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).

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**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 polyvinyl alcohol, Teflon, PE/EVAL. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable dust mask. Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. 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. Consider vacuuming if appropriate. 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.

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**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:** 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 doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

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**Section 8 - Exposure Controls and Personal Protection**

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


**SWA Exposure Limits**

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
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<tbody>
<tr>
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<td>Toluene</td>
<td>191</td>
<td>574</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.

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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: polyvinyl alcohol, Teflon, PE/EVAL.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable dust mask. 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:**

- **Physical Description & colour:** natural coloured viscous liquid
- **Odour:** Characteristic aromatic odour.
- **Boiling Point:** Not available.
- **Freezing/Melting Point:** No specific data. Paste at normal temperatures.
- **Vapour Pressure:** No data.
- **Vapour Pressure:** No data.
- **Vapour Density:** Not applicable.
- **Specific Gravity:** >1
- **Water Solubility:** Insoluble.
- **pH:** No data.
- **Volatility:** No data.
- **Odour Threshold:** No data.
- **Evaporation Rate:** Not applicable.
- **Coeff Oil/water Distribution:** No data.
- **Viscosity:** 32,000-40,000cps at 25°C
- **Autoignition temp:** No data.

**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:** acids, 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:** This product will not undergo polymerisation reactions.

**Section 11 - Toxicological Information**

**Local Effects:**

**Target Organs:** 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.

**Potential Health Effects**

**Inhalation:**

**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term inhalation.
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: No data for health effects associated with long term skin exposure.

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: Xylene is Class 3 - unclassifiable as to carcinogenicity to humans. 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.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>&gt;=5%Conc&lt;10%: Xn; R63</td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Insufficient data to be sure of status.

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: Pentane, 2-methyl- (Iso-hexane), Xylene, Toluene, are mentioned in the SUSMP.

Section 16 - Other Information

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

Acronyms:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG Code</td>
<td>Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)</td>
</tr>
<tr>
<td>AICS</td>
<td>Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td>SWA</td>
<td>Safe Work Australia, formerly ASCC and NOHSC</td>
</tr>
<tr>
<td>CAS number</td>
<td>Chemical Abstracts Service Registry Number</td>
</tr>
<tr>
<td>Hazchem Code</td>
<td>Emergency action code of numbers and letters that provide information to emergency services especially firefighters</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>NOS</td>
<td>Not otherwise specified</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program (USA)</td>
</tr>
<tr>
<td>R-Phrase</td>
<td>Risk Phrase</td>
</tr>
<tr>
<td>SUSMP</td>
<td>Standard for the Uniform Scheduling of Medicines &amp; Poisons</td>
</tr>
<tr>
<td>UN Number</td>
<td>United Nations Number</td>
</tr>
</tbody>
</table>

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS 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 RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS.

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 ON REQUEST.

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

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