



MATERIAL SAFETY DATA SHEET FOR: HM 1672

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

SUPPLIER Company: H. B. Fuller Company
Address: 16-20 Red Gum Drive Dandenong South VIC 3175
Telephone: (03) 9797 6222
Emergency telephone No: 1800 033 111

PRODUCT Product Name: HM 1672
Other Names: Hot melt adhesive
Manufacturer's Code: None

USE A low viscosity hot melt adhesive for bonding labels to PET or other plastics containers. Apply with dedicated hot melt application machinery.

2. HAZARDS IDENTIFICATION

HAZARD NOHSC Classification: Hazardous Substance
CLASSIFICATION ADG Classification: Non-Dangerous Goods
SUSDP Classification: Not scheduled

RISK PHRASES R36/37/38 Irritating to eyes, respiratory system and skin

SAFETY PHRASES S23 Do not breathe vapour, gas or fumes.
S24/25 Avoid contact with skin and eyes.
S45 In case of accident or if you are feeling unwell seek medical advice immediately (show the label where possible).
S51 Use only in well-ventilated areas,

3. COMPOSITION/INFORMATION ON INGREDIENTS

Table with 4 columns: MIXTURE, CHEMICAL ENTITY, CAS No, PROPORTION. Rows include Polymerised rosin, Mineral oil, Microwax, and Other ingredients determined not to be hazardous.

4. FIRST AID MEASURES



MATERIAL SAFETY DATA SHEET FOR: HM 1672

FIRST AID

**Swallowed:** Do NOT induce vomiting. Rinse mouth thoroughly with water. If casualty is alert and conscious give plenty of water to drink. Seek medical advice.

**Eyes:** If contact with solid product occurs, irrigate eye with copious amounts of water to remove adhesive particles. If contact with the molten material occurs, irrigate with copious amounts of water and SEEK IMMEDIATE MEDICAL ATTENTION.

**Skin:** Wash affected area with soap and water if contact with the solid form occurs. If contact with molten material occurs, immerse contact area in cold, clean water immediately. Do not attempt to remove set product. Cover contact area with wet compresses and take casualty to a doctor immediately.

**Inhaled:** Remove victim to fresh air. Seek medical advice if adverse symptoms, such as coughing, breathing difficulties or burning sensations in the respiratory tract develop.

**First Aid Facilities:** Burn creme, bandages, eyewash station, emergency showers in the vicinity where exposure is likely to occur.

ADVICE TO DOCTOR

No specific antidote. Provide supportive care. Treatment based on judgement of the doctor in response to reactions of the patient. If substance has entered eyes in a molten state, instil mineral oil to soften the preparation before attempting removal.

**5. FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA

Use alcohol resistant foam, water spray or fog for large fires, for small fires use dry chemical powder, carbon dioxide, sand or earth. Avoid using water jet on molten material as it may cause splattering and spreading of the fire.

HAZARDOUS COMBUSTION PRODUCTS

Oxides of carbon, dense smoke, flammable fumes, polymer fractions potentially producing unknown adverse health effects.

PRECAUTIONS FOR FIRE FIGHTERS

Fight fire from a safe distance. When heated over 230°C components of this mixture undergo exothermal degradation, thereby increasing the intensity of the fire and producing dense smoke and flammable fumes. Wear full protective chemical fire equipment including a self-contained breathing apparatus. Avoid using water jets on molten material to reduce splattering and spreading of the fire. Prevent fire-fighting medium from entering drains or waterways.



MATERIAL SAFETY DATA SHEET FOR: HM 1672

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

Isolate hazard area, increase ventilation and restrict access. Remove all sources of ignition. If the molten substance is spilled, allow it to cool and cut it into slabs of a size that is easily handled.

CLEAN UP PROCEDURE

**Solid Material:** Sweep, pick up or scoop up pillows or packs or slabs and place them in an appropriate container. Clearly label the container to ensure proper disposal.

**Molten Material:** Wear appropriate personal protection equipment (See Section 8) and contain spill. Allow preparation to cool then cut it to easily handleable pieces and treat them as described under the "Solid Material" heading.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING

Practice sound industrial hygiene. Avoid contact skin with material and inhaling of vapours or fumes emanating from the molten material. Use only in a well ventilated area. Wash skin thoroughly after handling. Guard against static build-up.

STORAGE

Store in a cool, dry, well ventilated place. Avoid exposure to direct sunlight or sources of heat. Store away from incompatible materials (see Section 10). Protect packaging against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS

An Australian Exposure Standard for this mixture has not been set by NOHSC. The inhalation hazard for this mixture in a solid state is very low. However the mixture does contain mineral oil and trace amounts of styrene, 1,3-butadiene and vinyl acetate monomers the exposure standards of which have been set by NOHSC as shown below. The nature and composition of the vapours, gases and fumes given off the heated material are unknown but the manufacturer of the styrene-1,3-butadiene rubber recommends a TWA as shown below.

Exposure Standard [NOHSC:1003(2004)]	TWA	STEL
Vinyl acetate monomer	10 ppm	20 ppm
Mineral oil (mist)	5 mg/m <sup>3</sup>	No data
Styrene monomer	50 ppm	100 ppm
1,3-butadiene monomer	10 ppm	No data



MATERIAL SAFETY DATA SHEET FOR: HM 1672

Styrene -1,3-butadiene rubber 0.6 mg/m<sup>3</sup> 0.6 mg/m<sup>3</sup>

BIOLOGICAL  
LIMIT VALUES

BEI (Styrene) = 400mg/ creatinine. (urine, end of shift)  
BEI (Styrene) = 0.2mg/ styrene. (venous blood, end of shift)  
Ref: ACGIH

ENGINEERING  
CONTROLS

The solid material requires only good natural ventilation. The molten material needs good general flameproof mechanical dilution ventilation reinforced with flameproof extraction ventilation at the source of vapour, gas or fume emanation. Ensure that ventilation is sufficient to maintain exposure levels as low as practicable.

PERSONAL  
PROTECTION  
EQUIPMENT

Use personal protective equipment that minimizes skin and eye contact with the solid mixture and, additionally, vapour, fumes or gas inhalation emanating from the molten substance. The type of protective equipment to be used depends largely the volume and the manner in which the substance is used. To ensure proper protection for any given situation, seek guidance from the following sources: protective clothing – AS 2919; gloves – AS 2161; eye protection – AS 1337; respiratory protection – AS 1715; feet protection – AS 2210. The suitability of each PPE for use with this mixture should then be ascertained with the respective PPE suppliers.

Under condition of ordinary use and adequate ventilation, only fabric or knitted gloves are needed when handling the solid preparation. When using the molten preparation, mono goggles, thick, long sleeved nitrile rubber gloves, long sleeved overalls and work boots should be used. If working in confined spaces, or if vapours, fumes or gases are generated and their airborne concentration is unknown wear, in the addition to the above, a full-face AS/NZ 1716 compliant cartridge type respirator with an organic vapour filter (For selection guidance see AS 1715). In the presence of fumes, a particulate filter should be fitted in conjunction with the organic filter. If the normal, ordinary work environment relies on PPE for respiratory protection, use a full-face air supplied respirator.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL  
DESCRIPTION &  
PROPERTIES

**Appearance:** Light amber pillow shaped solid  
**Odour:** Characteristic  
**pH:** Not applicable  
**Vapour Pressure:** Not available



## MATERIAL SAFETY DATA SHEET FOR: HM 1672

5 of 8

**Vapour Density:** Not available  
**Boiling Point:** Not established  
**Softening Point:** ca. 78°C  
**Solubility in Water:** Insoluble  
**Specific Gravity:** ca. 0.98  
**Flashpoint:** > 204°C  
**Explosive Limits (%v/v):** LEL: Not established; UEL: Not established  
**Ignition Temperature:** Not established

OTHER  
PROPERTIES

No relevant data

**10. STABILITY AND REACTIVITY**

CHEMICAL  
STABILITY

This material is stable under normal ambient and anticipated storage and handling conditions.

CONDITIONS  
TO AVOID

Temperatures in excess of the recommended processing temperatures.  
Extended storage at elevated temperatures.

INCOMPATIBLE  
MATERIALS

Strong oxidising agents.

HAZARDOUS  
DECOMPOSITION  
PRODUCTS

Decomposition products are largely temperature dependant and may range from simple hydrocarbons (e.g. methane, propane etc) to toxic/irritating gases, such as oxides of carbon, and vapours.

HAZARDOUS  
REACTIONS

Hazardous polymerization will not occur. This mixture can undergo exothermic oxidative degradation at elevated temperatures.

**11. TOXICOLOGICAL INFORMATION**

Little information is available for this particular mixture. The toxicological information given below is based on data of similar preparations.

ACUTE  
HEALTH  
EFFECTS

**Swallowed:** No known hazards in normal industrial use. Ingestion of small amounts of solid material is not expected to cause harm. Ingestion of molten material will cause thermal burns.  
LD<sub>50</sub> (rat) > 2000 mg/kg



MATERIAL SAFETY DATA SHEET FOR: HM 1672

**Eyes:** No known health effects due to the solid material. When warm or molten, vapours and fumes may cause irritation. When molten direct contact will cause thermal burns.

**Skin:** No known effects due to the solid material. Gases, vapours or fumes emanating from the warm or molten material may produce skin irritation; Direct contact will cause thermal burns if the material is in its molten state.  
LD<sub>50</sub> (rat) > 2000 mg/kg

**Inhaled:** No known effects due to the solid material. When warm or molten, gases, vapours or fumes may cause irritation of the nose, throat and respiratory tract, headaches, nausea and vomiting.

CHRONIC  
HEALTH  
EFFECTS

Frequent or prolonged exposure to gases, vapours or fumes from the hot or molten mixture, particularly if the product is overheated, may cause skin sensitisation or may trigger an allergic respiratory reaction.

**12. ECOLOGICAL INFORMATION**

The ecological effect of the mixture as a whole has not been tested. Given that all components are locked in a polymeric matrix and the bio-availability of the ingredients are not known, the ecological effects of the pure components cannot be reasonably extrapolated and hence no valid ecological data for this mixture is be given.

**13. DISPOSAL CONSIDERATIONS**

This product is a prescribed waste and may only be disposed of in accordance with applicable State and local regulations. These regulations vary from jurisdiction to jurisdiction and hence the user is counselled to seek advice from the local authority and classify the waste before considering disposal. The disposal information given below is a general guide and does not replace the requirement of the local regulations.

DISPOSAL

If possible recycle, otherwise dispose strictly in accordance with local industrial waste or environmental protection regulations. This substance may, if permitted by local authorities, be disposed of in an approved incineration facility or be considered for landfill.

SPECIAL  
PRECAUTIONS

Do not allow this material to contaminate soil, sewerage systems, ground or surface water.



## MATERIAL SAFETY DATA SHEET FOR: HM 1672

7 of 8

When large amounts of this product need to be disposed of, the services of a registered professional waste disposal organisation is highly recommended.

**14. TRANSPORT INFORMATION**

This product has not been classified as Dangerous Goods. It is therefore not subject to the following transport regulations: ADG, IMDG/IMO, ICAO/IATA.

**15. REGULATORY INFORMATION**

AICS All components of this mixture are listed in AICS.

SUSDP This mixture is not a scheduled poison.

**16. OTHER INFORMATION**

The IARC list of carcinogens places vinyl acetate into Group 2B "*Possibly carcinogenic to humans*". This source has also placed styrene monomer in Group 2B and mineral oil mist in Group 3 "*Not classifiable as to its carcinogenicity to humans*". NOHSC list of hazardous substances grades 1,3-butadiene monomer as a Category 1 carcinogen, "*Substances known to be carcinogenic to man*" and a Category 2 mutagen "*Substances that should be regarded as if they are mutagenic to man*"

This mixture contains mineral oil and trace amounts of vinyl acetate monomer, 1,3-butadiene monomer and styrene monomer. In the mixture "as is" the mineral oil only becomes an issue at high temperatures and the monomers are well below their respective cut-off limits promulgated by NOHSC. The mixture therefore represent only a slight health risk when used as directed

MSDS **Issue Number:** 02  
**Date of Issue:** September 2012  
**Replaces:** October 2007  
**Changes made to the previous issue:** None

ACRONYMS **ADG Code:** Australian Code for the Transport of Dangerous Goods by Road and Rail  
**AICS:** Australian Inventory of Chemical Substances.  
**CAS Number:** Chemical Abstracts Service Registry Number  
**CNS:** Central nervous system  
**DG:** Dangerous Goods  
**Hazchem Code:** An emergency action code of numbers and letters, which gives information to emergency services.  
**IARC:** International Agency for Research on Cancer.  
**N.O.S.:** Not otherwise specified.



MATERIAL SAFETY DATA SHEET FOR: HM 1672

8 of 8

---

**NOHSC:** National Health and Safety Commission.

**PPE:** Personal protection equipment.

**R-Phrases:** Risk Phrases.

**S-Phrases:** Safety Phrases.

**SUSDP:** Standard for the Uniform Scheduling of Drugs and Poisons.

**UN Number:** United Nations Number

---

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular, how to safely handle and use the product in the workplace. Since H.B. Fuller Company Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use then product 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 the 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

---