



H.B. Fuller Company

3530 North Lexington Avenue
St. Paul, Minnesota 55126
(651) 236-3000

HM-2710
PRODUCT NUMBER

Page 01 of 02

TECHNICAL DATA SHEET

HOT MELT ADHESIVE

DESCRIPTION

This product is a hot melt adhesive designed to adhere polyethylene basecups to P.E.T. bottles. It has excellent flexibility at low temperature and good tensile strength at high temperature.

FDA STATUS: A letter is available upon request.

TYPICAL PHYSICAL PROPERTIES and GENERAL INFORMATION

RAW MATERIAL BASE	SYNTHETIC RESIN
MOLTEN GARDNER COLOR	8
PROGRAMMED OVEN SHEAR	153 DEGREES F
RING & BALL SOFTENING POINT-DEG.F. .	207 DEGREES F.
SPECIFIC GRAVITY	0.968
VISCOSITY @ 250F	35,500 cP (mPa.s)
VISCOSITY @ 300F	8,125 cP (mPa.s)
VISCOSITY @ 350F	3,700 cP (mPa.s)
RATE OF SET	SLOW
SHELF LIFE	ONE YEAR
FORM & PACKAGING	PILLOW
RECOMMENDED APPLICATION TEMPERATURE	350 F

CLEANUP INSTRUCTIONS

Consult the equipment manufacturer for cleanup procedures. After cleanup, flush the applicator thoroughly with hot melt adhesive to purge the system.

SAFETY INSTRUCTIONS

To minimize the risk of burns, we recommend the use of eye protection and protective clothing when working near a hot melt applicator. To minimize the risk of flammable vapors, do not exceed a melt temperature above 400F. Prevent the build-up of vapors. Extinguish all sources of ignition during hot melt use.

07-29-2004

ALABAMA METALS BIRMINGHAM 971
ALABAMA METALS
3245 FAYETTE
BIRMINGHAM, AL 35208
US

1091125222

SUBJECT: Material Safety Data Sheet

Dear MSDS Coordinator,

Enclosed, find the Material Safety Data Sheet(s) (MSDS) for the requested product(s). We have reviewed our products, conducted a hazard determination, and prepared MSDSs in compliance with the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS). Our MSDSs also provide information on any toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

If this product, or any component of it, is considered to be hazardous or carcinogenic under the OSHA Hazard Communication Standard or the WHMIS regulations, information is provided in Section 2: COMPOSITION/INFORMATION ON INGREDIENTS or in Section 3: HAZARDS IDENTIFICATION.

You have received the MSDS because

- 1 You have ordered the products for the first time, or
- 2 Your company reordered products where the MSDS has changed since you last ordered, or
- 3 You requested the MSDS.

If you have any questions, please contact your Sales Representative.

Sincerely yours,

Global Regulatory

MATERIAL SAFETY DATA SHEET

REVISION DATE: 07-22-2004

SUPERSEDES: 07-09-2002

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION

H.B. Fuller Company
1200 Willow Lake Boulevard
Vadnais Heights, MN 55110
Phone: 651-236-5300

Medical Emergency Phone Number (24 Hours): 1-888-853-1758
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT INFORMATION

PRODUCT IDENTIFIER: 803789PM
PRODUCT NUMBER: HM2710
PRODUCT DESCRIPTION: Hot melt adhesive

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for any additional exposure limit guidelines.

Chemical Name	CAS #	PERCENT	OSHA PEL
Rosin, polymerized	65997-05-9	30 - 50	Not established
Oil, petroleum	64742-52-5	10 - 30	TWA * Mist 5 MG/M3
Waxes, paraffin and hydrocarbon	8002-74-2	10 - 30	TWA Fume 2 MG/M3

*These exposure limits are for mineral oil mist, a related material.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Contact with molten product will cause thermal burns. May cause allergic skin reaction.
Vapors/fumes may be irritating at application temperatures. May cause an allergic respiratory reaction.

HMIS RATING: HEALTH -- 1 FLAMMABILITY -- 1 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY

EYE: Mild eye irritant. Exposure to hot material may cause thermal burns.

MATERIAL SAFETY DATA SHEET

SKIN: Skin contact at room temperature is not irritating. Contact with product at elevated temperatures can result in thermal burns.

May cause sensitization.

INHALATION: Can cause minor respiratory irritation. Vapors may have an offensive odor that may cause headaches, nausea, and vomiting.

May cause allergic respiratory reaction.

INGESTION: Ingestion is not an anticipated route of exposure. No hazard in normal industrial use.

LONG-TERM (CHRONIC) HEALTH EFFECTS

TARGET ORGAN(S): Skin Lungs

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: Skin disease including eczema and sensitization; Lung disease

SECTION 4: FIRST AID MEASURES

IF IN EYES: None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard. For hot product, immediately flush eyes with plenty of water for at least 20 minutes. Get immediate medical attention.

IF ON SKIN: Wash with soap and water. For hot material, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean gauze and do not attempt to remove the material yourself. Get prompt medical attention. Medical personnel: coat with mineral oil to soften material for removal.

IF VAPORS INHALED: Remove to fresh air. Call a physician if symptoms persist. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	> 204 C (400 F) Cleveland Closed Cup
AUTOIGNITION TEMPERATURE:	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
UPPER EXPLOSIVE LIMIT (% in air):	Not established
EXTINGUISHING MEDIA:	A solid stream of water may scatter molten product. Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Material will burn in a fire.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, Carbon monoxide

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in

MATERIAL SAFETY DATA SHEET

avoided. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

CLEAN-UP: Allow molten material to solidify before disposal.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7: HANDLING AND STORAGE

Handling: Mildly irritating material. Avoid unnecessary exposure. Avoid breathing vapors/fumes of heated product. Prevent contact with molten product.

Storage: Store in a cool, dry place.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Wear safety glasses when handling this product.

SKIN PROTECTION: Not normally required. Wear chemically resistant gloves to prevent prolonged or repeated contact. When material is heated, wear thermally insulating gloves to protect against thermal burns.

GLOVES: Nitrile

RESPIRATORY PROTECTION: Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

VENTILATION: Use local exhaust ventilation or other engineering controls to minimize exposures. At the application temperature, use of local exhaust over the premelting reservoir is encouraged.

EXPOSURE LIMITS:

Chemical Name	ACGIH EXPOSURE LIMITS	AIHA WEEL
Rosin, polymerized	TWA Exposure should be minimized to its full extent.	Not established
Oil, petroleum	TWA *Mist 5 MG/M3 STEL *Mist 10 MG/M3	Not established
Waxes, paraffin and hydrocarbon	TWA Fume 2 MG/M3	Not established

*These exposure limits are for mineral oil mist, a related material.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

MATERIAL SAFETY DATA SHEET

COLOR: Amber Light
ODOR: Neutral
ODOR THRESHOLD: Not established
SPECIFIC GRAVITY: 0.97
SOLIDS (% by weight):
pH: Not applicable
BOILING POINT (deg. C): Not established
FREEZING/MELTING POINT (deg. C): Not established
VAPOR PRESSURE (mm Hg): Not established
VAPOR DENSITY: Not established
EVAPORATION RATE: Not established
OCTANOL/WATER COEFFICIENT: Not established

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.
CHEMICAL INCOMPATIBILITY: Not established
HAZARDOUS POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION

CHEMICAL NAME	LD50/LC50
Rosin, polymerized	Not established
Oil, petroleum	Not established
Waxes, paraffin and hydrocarbon	Not established

TOXICOLOGY SUMMARY: No additional health information available.

SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available

SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in an approved landfill. Consult your state, local or provincial authorities and your local waste vendor for more restrictive requirements.

SECTION 14: TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

DOT: NOT REGULATED ,,,

SECTION 15: REGULATORY INFORMATION

INVENTORY STATUS

MATERIAL SAFETY DATA SHEET

- U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
- CANADIAN CEPA DSL: This product is in compliance with the Canadian Domestic Substance List requirements.
- EUROPEAN EINECS: This product is in compliance with the European Inventory of Notified and Existing Chemical Substances requirements.
- AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at 651-236-5858 (USA) or 450-655-1306 x227 (Canada) to request an export review.

FEDERAL REPORTING

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
---------------	------	---

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

D2A D2B

STATE REPORTING

This MSDS is not prepared for distribution in California.

SECTION 16: ADDITIONAL INFORMATION

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the H.B. Fuller Company from its suppliers, and because the H.B. Fuller Company has no control over the conditions of handling and use, the H.B. Fuller Company makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the H.B. Fuller Company assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Company products to comply with all applicable federal, state and local laws and regulations.