

SAFETY DATA SHEET



Section 1: Identification

Product Name: X3001
Polyurethane film

CAS Number: Trade Secret

Product Use: Heat activated adhesive film

Manufacturer: Bemis Associates
One Bemis Way
Shirley, MA 01464

Telephone (General): 978-425-6761

Telephone (Emergency): CHEMTREC
1-800-424-9300

Section 2: Hazard Identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS this mixture is not classified as hazardous.

GHS Classification of the Substance or Mixture:

Health	Environmental	Physical
OSHA HCS 2012 – Classification criteria not met	OSHA HCS 2012 – Classification criteria not met	OSHA HCS 2012 – Classification criteria not met

Label Elements

OSHA HCS 2012

- Does not require labeling

Hazard Statements – Hazards not otherwise classified

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- This mixture contains isocyanate. Contents of m-toluene diisocyanates (CAS trade secret) less than .1 weight % do not have to be observed according to EC Directives.

Precautionary Statements

- Prevention
- Avoid breathing dust/fume/gas/mist/vapours spray
 - Wear protective gloves
 - Contaminated work clothing should not be allowed out of the workplace
 - In case of inadequate ventilation wear respiratory protection
 - Do not handle until all safety precautions have been read and understood
- Response
- If exposed or concerned: Get medical advice/attention.
 - If on skin: wash with plenty of water. If irritation or rash occurs: Get medical advice/attention
 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical attention
 - If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call 911 or emergency/doctor.
- Disposal
- Dispose of contents/container in accordance with local regulations.

Section 3: Composition/ Information on Ingredients

Chemical Name	CAS Number	Percent
Thermoplastic Polyurethane	Trade Secret	>99%
Amine Encapsulated Polyisocyanate Based on TDI Dimer	Trade Secret	<.1

Hazardous Components

None by reference to OSHA 29 CFR 1910, Hazard Communication Standard.

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See Section 8 for Exposure Limits

Section 4: First Aid Measures

Skin	Not likely to be hazardous by skin contact. Washing with soap and water after handling is advisable. If molten material gets on skin, cool rapidly with cold water. Do not attempt to peel the material from the skin and get medical attention
Eye	In case of contact flush eyes with plenty of lukewarm water for at least 15 minutes. Get medical attention
Ingestion	Not a probably route of exposure. Material unlikely to be hazardous by ingestion. If ingested call POISON CENTER if feel unwell. Seek medical attention if feel unwell
Inhalation	Not likely to be hazardous by inhalation. If exposed to fumes from overheating or combustion remove to fresh air and get medical attention if irritation develops.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Water, foam, dry powder and carbon dioxide
Firefighting Procedures	Firefighters should be equipped with NIOSH approved self-contained breathing apparatus with full face mask and full protective clothing to protect against potentially toxic and irritating fumes. Do not flush down sewers or other drainage systems
Unusual Fire/Explosion Hazards	Toxic and irritating gases/fumes may be given off during burning or thermal decomposition

Section 6: Accidental Release Measures

Personal Precautions	Wear appropriate personal protective equipment. Keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind, keep out of low areas. Do not touch or walk through spilled material. Do not
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touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

As an immediate precautionary measure isolate spill or leak area for at least 50 meters (150 feet) in all directions. Eliminate all ignition sources. Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

Containment/Clean Up Measures

Allow product to cool if hot or molten, sweep or scrape into secure containers for disposal. Do not flush to sewer or waterways. Prevent release to the environment if possible.

Section 7: Handling and Storage

Handling

Use appropriate personnel protective equipment. Practice good hygiene after handling. Have adequate ventilation. Do not get in eyes, on skin, or on clothing. Wash hands before eating, drinking, smoking. Remove contaminated clothing and clean before re-use.

Storage

Store in a cool dry place away from direct sunlight and sources of heat. Protect from physical damage.

Section 8: Exposure Controls/Personal Protection

Exposure Limits

2,4-Toluene Diisocyanate (584-84-9) US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.005 ppm

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 0.02 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Ceiling Limit Value: 0.02 ppm, 0.14 mg/m³

US. OSHA Table Z-1-A (29 CFR 1910.1000)

Time Weighted Average (TWA): 0.005 ppm, 0.04 mg/m³

US. OSHA Table Z-1-A (29 CFR 1910.1000)

Short Term Exposure Limit (STEL): 0.02 ppm, 0.15 mg/m³

US. ACGIH Threshold Limit Values

Hazard Designation: Sensitizer.

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Engineering Measures/Controls

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Thermal processing operations should be ventilated to control fumes which might be given off during processing. Local ventilation is recommended to control emissions near the sources.

Personal Protective Equipment

Respiratory Protection None required in ventilated work areas. In case of insufficient ventilation around thermal processing operations wear NIOSH approved respiratory protection. A NIOSH approved respirator for organic vapors is generally acceptable for concentrations up to 10 times the PEL. For higher concentrations, unknown concentration, and oxygen deficient atmospheres use a NIOSH approved air-supplied respirator. Engineering controls are the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

Eye Protection Wear safety goggles or safety glasses with side shield during processing. Face shield can also be worn. Have eye wash stations available where eye contact can occur.

Skin Protection Avoid skin contact. Wear gloves impervious to conditions of use. Gloves should be worn while handling. Additional protection may be necessary to prevent skin contact including use of apron, face shield, boots or full body protection. A safety shower should be located in the work area.

Section 9: Physical and Chemical Properties

Material Description	
Physical Form/Appearance	Solid, translucent film
Odor	none
Odor Threshold	n/a
pH	
Melting Point/Freezing Point	48°C
Initial Boiling Point/Boiling Range	
Specific Gravity	1.15 g/cm ³
Flash Point	
Evaporation Rate	

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Flammability	
Upper Explosion Limit	n/a
Lower Explosion Limit	n/a
Vapor Pressure	
Vapor Density	
Relative Density	
Solubility	
Partition Coefficient	
Auto-ignition Temperature	
Decomposition Temperature	

Section 10: Stability and Reactivity

Chemical Stability Stable

Possibility of Hazardous Reactions

Hazardous polymerization will not occur

Conditions to Avoid Avoid prolonged exposure to elevated temperatures above 317°C

Incompatible Materials None

Hazardous Decomposition Products

By fire and thermal decomposition: Carbon Dioxide, carbon monoxide, carbon, hydrocarbon oxidative products including organic acids, aldehydes and alcohols.

Section 11: Toxicological Information

Toxicological Effects	
GHS Properties	Classification
Acute Toxicity	OSHA HCS 2012 – Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 – Classification criteria not met
Carcinogenicity	OSHA HCS 2012 – Classification criteria not met

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Germ Cell Mutagenicity	OSHA HCS 2012 – Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 – Classification criteria not met
Serious eye damage/irritation	OSHA HCS 2012 – Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 – Classification criteria not met
Skin sensitization	OSHA HCS 2012 – Classification criteria not met
TOST-RE	OSHA HCS 2012 – Classification criteria not met
TOST-SE	OSHA HCS 2012 – Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 – Classification criteria not met

Target Organs No known significant effects or critical hazards

Routes of Exposure Skin, eye, ingestion, inhalation

Potential Health Effects

Inhalation

Acute No information available

Chronic No information available

Skin

Acute Non irritating. Molten polymer will adhere to skin causing deep thermal burns

Chronic No known significant effects or critical hazards

Eye

Acute May cause physical abrasion in contact with eyes. Molten polymer will cause serious burns to the eyes.

Chronic No known significant effects or critical hazards

Ingestion

Acute Not hazardous in normal industrial use

Chronic No known significant effects or critical hazards

Section 12: Ecological Information

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Toxicity	Material data lacking
Persistence and degradability	Material data lacking
Bio accumulative Potential	Material data lacking
Mobility in Soil	Material data lacking
Other adverse effects	No studies have been found
Other Information	No Information Available

Section 13: Disposal Considerations

Waste Treatment Methods

Product Waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations
Packaging Waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

Section 14: Transport Information

	UN Number	UN Proper Shipping Name	Transport hazard class	Packing Group	Environmental hazards
DOT	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
TDG	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
IMO/IMDG	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
IATA/ICAO	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated

Special Precautions for User None Specified

Section 15: Regulatory Information

Safety, Health, and Environmental regulations/legislation specific for the substance or mixture

United States - OSHA (29 CFR 1910.1200): Placeholder
Mexico - NOM-018-STPS-2000: Refer to HMIS Rating in Section 16.

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Canada - WHMIS Classification (CPR, SOR/88-66): Placeholder

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International Inventories

TSCA

Does not comply	DSL/NDSL
Does not comply	EINECS/ELINCS
Does not comply	ENCS
Does not comply	IECSC
Does not comply	KECL
Does not comply	PICCS
Does not comply	AICS
Does not comply	NZIoC

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Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical

Substances **IECSC** - China Inventory of

Existing Chemical Substances **KECL** -

Korean Existing and Evaluated Chemical

Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive

Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

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US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

MA Right to Know Substances List – This product does not contain any listed components

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

TOSCA Section 12(b) Export Regulations

Not Applicable

Section 16: Other Information

Last Revision Date: 9/27/2016

Preparation Date: 5/19/2014

Disclaimer/Statement of Liability

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable, and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.