MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION
H.B. Fuller Company
1200 Willow Lake Boulevard
Vadnais Heights, MN  55110
Phone:  651-236-5900

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

PRODUCT INFORMATION
PRODUCT IDENTIFIER:  802589PM
PRODUCT NUMBER:  FH3140B
PRODUCT DESCRIPTION: Urethane curative

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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>PERCENT</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenylene diamine, meta</td>
<td>108-45-2</td>
<td>10 - 30</td>
<td>Not established</td>
</tr>
<tr>
<td>Methylpyrrolidone, N-</td>
<td>872-50-4</td>
<td>10 - 30</td>
<td>Not established</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>84-74-2</td>
<td>5 - 10</td>
<td>TWA 5MG/M3</td>
</tr>
<tr>
<td>2-Pyrrolidonone</td>
<td>616-45-5</td>
<td>1 - 5</td>
<td>Not established</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>0.1 - 1</td>
<td>TWA 100ppm STEL 150ppm</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Combustible
Severe eye irritant.
Can cause skin irritation. May cause allergic skin reaction. May cause an allergic respiratory reaction.
Harmful if swallowed.
HMIS RATING: HEALTH -- 3 FLAMMABILITY -- 2 REACTIVITY -- 0
See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY
EYE: Can cause severe irritation. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excessive blinking and tear production, with marked redness and swelling of the conjunctiva. Temporary vision impairment (cloudy or blurred vision) is possible.

SKIN: Continued or prolonged contact may irritate the skin and cause a skin rash (dermatitis). May cause sensitization. Component(s) may be absorbed through intact skin, but it is unlikely that harmful effects will occur unless contact is prolonged, repeated, and extensive.

INHALATION: Can cause minor respiratory irritation. May cause allergic respiratory reaction. Inhalation of high concentrations may result in central nervous system (CNS) effects such as dizziness, weakness, fatigue, nausea, headache, and lack of coordination.

INGESTION: Ingestion is not an anticipated route of exposure. Harmful if swallowed. Irritating to mouth, throat, and stomach.

LONG-TERM (CHRONIC) HEALTH EFFECTS

REPRODUCTIVE: Contains a substance that is a possible reproductive hazard based on animal studies at doses that could be encountered in the workplace.

TARGET ORGAN(S): Liver Kidneys Bladder Reproductive system Central nervous system

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: Liver disease; Kidney disease

SECTION 4: FIRST AID MEASURES

IF IN EYES: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

IF ON SKIN: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

IF VAPORS INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention immediately. Drink two glasses of water or milk to dilute. Do not give anything by mouth to an unconscious person. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 91°C; 196°F

AUTOIGNITION TEMPERATURE: Not established

LOWER EXPLOSIVE LIMIT (% in air): Not established

UPPER EXPLOSIVE LIMIT (% in air): Not established

EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and can travel to a source of ignition and flash back.

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 Nitrogen containing gases

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Personal protective equipment needs must be evaluated based on
information provided on this sheet and the special circumstances created by
the spill including; the material spilled, the quantity of the spill, and the area
in which the spill occurred. Never exceed any occupational exposure limits.
Evaporation of volatile substances can lead to the displacement of air
creating an environment that can cause asphyxiation.

CLEAN-UP:
Dike if necessary, contain spill with inert absorbent and transfer to containers
for disposal. Keep spilled product out of sewers, watersheds, or water
systems.
Shut off ignition sources; including electrical equipment and flames. Do not
allow smoking in the area.

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

SECTION 7: HANDLING AND STORAGE

Handling: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use
only in a well ventilated area.
Keep away from heat, sparks and flame.
Wash thoroughly after handling.
Keep container closed.
Emptied container retains vapor and product residue.
Observe all labeled precautions until container is cleaned.
Drums of this material should be grounded when pouring.
DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.

Storage: Store in a cool, dry, ventilated location. Keep away from heat and flame. Keep container
closed.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Wear safety glasses with side shields when handling this product.
Wear additional eye protection such as chemical splash goggles
and/or face shield when the possibility exists for eye contact with
splashing or spraying liquid, or airborne material. Have an eye wash
station available.

SKIN PROTECTION: Avoid skin contact by wearing chemically resistant gloves. Skin
absorption may potentially contribute to the overall exposure to this
material. Appropriate measures should be taken to prevent
absorption so that the TLV is not invalidated.

GLOVES: Neoprene

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. NIOSH approved
air purifying respirator with organic vapor cartridge and dust/mist
filter.
Respirators should be selected by and used following requirements

VENTILATION: Use local exhaust ventilation or other engineering controls to
minimize exposures.

EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH EXPOSURE LIMITS</th>
<th>AIHA WEEL</th>
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</thead>
<tbody>
<tr>
<td>Phenylenediamine, meta</td>
<td>TWA 0.1MG/M3</td>
<td>Not established</td>
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</table>
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL STATE:</td>
<td>Liquid</td>
</tr>
<tr>
<td>COLOR:</td>
<td>Brown</td>
</tr>
<tr>
<td>ODOR:</td>
<td>Amine</td>
</tr>
<tr>
<td>ODOR THRESHOLD:</td>
<td>Not established</td>
</tr>
<tr>
<td>WEIGHT PER GALLON (lbs.):</td>
<td>8.71</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY:</td>
<td>1.07</td>
</tr>
<tr>
<td>SOLIDS (% by weight):</td>
<td>75.5</td>
</tr>
<tr>
<td>pH:</td>
<td>Not established</td>
</tr>
<tr>
<td>BOILING POINT (deg. C):</td>
<td>Not established</td>
</tr>
<tr>
<td>FREEZING/MELTING POINT (deg. C):</td>
<td>Not established</td>
</tr>
<tr>
<td>VAPOR PRESSURE (mm Hg):</td>
<td>Not established</td>
</tr>
<tr>
<td>VAPOR DENSITY:</td>
<td>Not established</td>
</tr>
<tr>
<td>EVAPORATION RATE:</td>
<td>Not established</td>
</tr>
<tr>
<td>OCTANOL/WATER COEFFICIENT:</td>
<td>Not established</td>
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</table>

### SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>STABILITY:</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>CHEMICAL INCOMPATIBILITY:</td>
<td>Not established</td>
</tr>
<tr>
<td>HAZARDOUS POLYMERIZATION:</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>HAZARDOUS DECOMPOSITION PRODUCTS:</td>
<td>Carbon monoxide, carbon dioxide Nitrogen containing gases</td>
</tr>
</tbody>
</table>

### SECTION 11: TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenylenediamine, meta</td>
<td>Oral LD50 Rat = 280mg/kg</td>
</tr>
<tr>
<td>Methylpyrrolidone, N-</td>
<td>Oral LD50 Rat = 3914mg/kg</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>Oral LD50 Rat = 8g/kg</td>
</tr>
<tr>
<td></td>
<td>Inhalation LC50 Mouse = 4250mg/cu m/4H</td>
</tr>
<tr>
<td></td>
<td>Dermal LD50 Rabbit &gt; 20ml/kg</td>
</tr>
<tr>
<td>2-Pyrrolidonone</td>
<td>Oral LD50 Rat = 6500mg/kg</td>
</tr>
<tr>
<td>Toluene</td>
<td>Oral LD50 Rat = 636mg/kg</td>
</tr>
</tbody>
</table>
Inhalation LC50 Rat = 49000mg/cu m/4H  
Dermal LD50 Rabbit = 14.1ml/kg

TOXICOLOGY SUMMARY:  No additional health information available.

SECTION 12: ECOLOGICAL INFORMATION
OVERVIEW: No ecological information available

262.9 g VOC/liter of material  
(VOC theoretically determined using EPA Reference method 24)

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. Disposal via incineration at an approved facility is recommended. Consult state, local or provincial authorities for more restrictive requirements.

LAND DISPOSAL RESTRICTIONS:  1,3-Phenylenediamine Di-n-butyl phthalate Toluene

SECTION 14: TRANSPORTATION INFORMATION
Consult Bill of Lading for transportation information.


IATA:  IN CONTAINERS <102 POUNDS: TOXIC, LIQUIDS, ORGANIC, N.O.S. (M-PHENYLENEDIAMINE), 6.1, UN2810, III. IN CONTAINERS >101 POUNDS: TOXIC, LIQUIDS, ORGANIC, N.O.S. (M-PHENYLENEDIAMINE), 6.1, UN2810, III, RQ (DIBUTYL PHTHALATE)

SECTION 15: REGULATORY INFORMATION
INVENTORY STATUS
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 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

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<tr>
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<td>N-Methyl-2-pyrrolidone</td>
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<td>Toluene</td>
<td>108-88-3</td>
<td>0.1 - 1</td>
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</table>
WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.
B3
D2B D1B D1A D2A

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.