

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	Mender X2 – NC Part B
SYNONYMS:	None known
CAS#:	Mixture
PRODUCT USE:	This product is used for floor coating
CHEMICAL SHIPPING NAME/CLASS:	Non-Regulated Material
U.N. NUMBER:	None
MANUFACTURER'S NAME:	Bayvex Technologies
ADDRESS:	8231 214 th Street W, Lakeville, MN 55044
BUSINESS PHONE #:	1-952-491-0024
EMERGENCY PHONE #:	1-952-491-0024
DISTRIBUTOR NAME:	Penntek Industrial Coatings
ADDRESS:	7850 Lakeville Blvd., Lakeville, MN 55044
BUSINESS PHONE #:	1-844-290-9364
EMERGENCY PHONE #:	1-844-290-9364
DATE OF CURRENT REVISION:	April 2, 2025
DATE OF LAST REVISION:	June 26, 2023

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a amber liquid with no odor.

Health Hazards: Prolonged or repeated exposure may cause irritation to skin. May cause irritation to eyes upon contact with redness and tearing. Ingestion of this product may cause gastrointestinal irritation.

Flammability Hazards: This product is a Non-Flammable liquid with a flash point of >200°F (>93.3°C)

Reactivity Hazards: None known

Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product may have adverse long term effects in the aquatic environment.

US DOT SYMBOLS

CANADA (WHMIS) SYMBOLS

EUROPEAN and (GHS) Hazard Symbols

Non-Regulated Material

Complies with WHMIS 2015



Signal Word: **Danger!**

CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1910.1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:

This product does meet the definition of a hazardous substance or preparation as defined by OSHA in 29 CFR 1910.1200 or the European Union Council Directives 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Proprietary Ingredient is Indexed in EINECS

EC# 229-934-9 is listed in EINECS

EC# 905-804-3 is listed in EINECS

Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s)

All Ingredients

GHS Hazard Classification(s):

Skin Irritant Category 2

Eye Irritant Category 2

Skin Sensitizer Category 1

Acute Inhalation Toxicity Category 4

Respiratory Sensitizer Category 1

STOT SE Category 3

Carcinogenicity Category 2

Reproductive Toxicity Category 2

STOT RE Category 2

Hazard Statement(s):

H315: Causes skin irritation

H319: Causes serious eye irritation

Precautionary Statement(s):

P202: Do not handle until all safety precautions have been read and understood.

H317: May cause allergic skin reaction
 H332: Harmful if inhaled
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H335: May cause respiratory irritation
 H351: Suspected of causing cancer
 H361: Suspected of damaging fertility or the unborn child
 H373: Causes damage to organs through prolonged or repeated exposure.

Response Statement(s):

P312: Call a Poison Center or doctor/physician if you feel unwell.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P308+P313: IF exposed or concerned: Get medical advice/attention.
 P362+P364: Take off contaminated clothing and wash before reuse
 P332+P313: If skin irritation occurs: Get medical advice/attention

Storage Statement(s):

P403+P235: Store in a well-ventilated place. Keep cool.
 P404: Store in a closed container

Disposal Statement(s):

P501: Dispose of contents/container in accordance with local/national/international regulations.

Other Known Hazard(s):

This mixture does not meet the criteria for PBT or vPvB in accordance with Annex VI.
 No other hazards known

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation of vapors and ingestion. The symptoms of overexposure are described below.

ACUTE:

INHALATION: Inhalation of vapors/mist/spray may cause respiratory irritation, breathlessness, chest discomfort and reduced pulmonary function.

CONTACT WITH SKIN: Prolonged and repeated contact may cause irritation to skin. May cause allergic skin reaction.

EYE CONTACT: Direct eye contact can cause irritation with redness, tearing and blurred vision.

INGESTION: Under normal conditions of intended use, this material is not expected to be an ingestion hazard. Ingestion of large quantities may cause gastrointestinal irritation, nausea and vomiting.

CHRONIC: This product may cause damage to the lungs after repeated inhalation.

TARGET ORGANS: Acute: Skin, Respiratory System and Eyes

Chronic: Respiratory System

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	Hazard Classification
2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	40– 50%	6846-50-0	229-934-9	H361: Reproductive Toxicity Cat 2
Diphenylmethane-4,4'-diisocyanate	35 - 45%	101-68-8	202-966-0	615-005-00-9 H315: Skin Irritant Cat 2, H317: Skin Sensitizer Cat 1, H319: Eye Irritant Cat 2, H332: Acute Inhalation Toxicity Cat 4, H334: Respiratory Sensitizer Cat 1, H335: STOT SE Cat 3, H351: Carcinogen Cat 2, H373: STOT RE Cat 2
P-MDI	10 – 20%	9016-87-9	905-804-3	H315: Skin Irritant Cat 2, H317: Skin Sensitizer Cat 1, H319: Eye Irritant Cat 2, H332: Acute Inhalation Toxicity Cat 4, H334: Respiratory Sensitizer Cat 1, H335: STOT SE Cat 3, H351: Carcinogenicity Cat 2,
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

NOTE: This product has been classified in accordance with the hazard criteria of 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000.

4. FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water. Remove contact lenses if easy to do and continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin or respiratory conditions may be aggravated.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Flammable liquid with flash point >200°F (>93.3°C)

AUTOIGNITION TEMPERATURE: Not Available

FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA

FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

Water Spray: Yes

Carbon Dioxide: Yes

Foam: Yes

Dry Chemical: Yes

Halon: Yes

Other: Any "C" Class

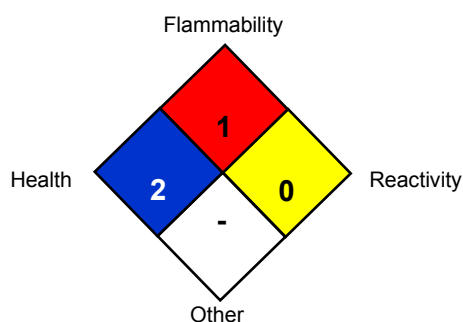
UNUSUAL FIRE AND EXPLOSION HAZARDS: Hazards during fire-fighting: nitrous gases, fumes/smoke, isocyanate vapor

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			2
FLAMMABILITY HAZARD (RED)			1
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Stop the flow of material, if this can be done safely. Contain discharged material. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place in a proper container for disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations)

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Ensure adequate ventilation. Wash thoroughly after handling this product. Use good hygiene practices.

STORAGE AND HANDLING PRACTICES: Store in original container. Keep container closed when not in use. Store in a cool, dry location.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	6846-50-0	Not Listed	Not Listed
Diphenylmethane-4,4'-diisocyanate	101-68-8	0.005 ppm	0.005 ppm
P-MDI	9016-87-9	0.005 ppm	0.005 ppm

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Always use in adequately ventilated area. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended to avoid eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

SKIN PROTECTION: Wear impervious gloves for prolonged or repeated exposure as appropriate to task avoid when using this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: This product is a amber liquid with a no odor.

ODOR: Mild

ODOR THRESHOLD: Not Available

pH: Not Available

MELTING/FREEZING POINT: Not Available

BOILING POINT: Not Available

FLASH POINT: >93.3°C / >200°F

EVAPORATION RATE (n-BuAc=1): Not Available

FLAMMABILITY (SOLID, GAS): Not Applicable

UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Available

VAPOR DENSITY: Not Available

SPECIFIC GRAVITY: Not Available

SOLUBILITY IN WATER: Non-soluble

WEIGHT PER GALLON: 9.0 Lbs/Gal

PARTITION COEFFICIENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: 66.7 Centipoise

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal storage and use.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products include oxides of carbon, nitrogen oxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Acids, amines, alcohols, water, alkaline, strong bases, substances/products that react with isocyanates.

POSSIBILITY OF HAZARDOUS REACTIONS: Reacts with water, with formation of carbon dioxide. Reacts with alcohols. Reacts with acids and amines.

CONDITIONS TO AVOID: Incompatible materials.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Chemical Name	CAS#	Oral LD50	Dermal LD50	Inhalation LC50
2,2,4-Trimethyl-1,3-Pentanediol Diisobutyrate	6846-50-0	No Data Available	No Data Available	No Data Available
Diphenylmethane-4,4'-diisocyanate	101-68-8	9200 mg/kg Rat	No Data Available	178 mg/m ³ Rat
P-MDI	9016-87-9	49 gm/kg Rat	>9400 mg/kg Rabbit	490 mg/m ³ /4H Rat
Acute Oral Toxicity		Based on available data, the classification criteria are not met		
Skin Corrosion / Irritation		Skin Irritant Category 2		
Serious Eye Damage / Irritation		Eye Irritant Category 2		
Respiratory or Skin Sensitization		Skin and Respiratory Sensitizer Category 1		
Germ Cell Mutagenicity		Based on available data, the classification criteria are not met		
Carcinogenicity		Carcinogenicity Category 2		
Reproductive Toxicity		Reproductive Toxicity Category 2		
STOT – Single Exposure		STOT SE Category 3		
STOT – Repeated Exposure		STOT RE Category 2		
Aspiration Hazard		Based on available data, the classification criteria are not met		

SUSPECTED CANCER AGENT: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, or suspected to be, cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: Exposure to this product may cause skin and eye irritation.

SENSITIZATION TO THE PRODUCT: This product is not expected to cause skin sensitization.

REPRODUCTIVE TOXICITY INFORMATION: This product contains an ingredient reported to affect reproductivity.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: No specific data available on this product.

CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product may cause harm to plants, animals or aquatic life.

WATER ENDANGERMENT CLASS: Water endangering in accordance with EU Guideline 91/155-EWG – Not Determined.

SPECIFIC AVAILABLE COMPONENT INFORMATION: No additional data available at this time.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

EU Waste Code: Not determined

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME: Non-Regulated material

HAZARD CLASS NUMBER and DESCRIPTION: None

UN IDENTIFICATION NUMBER: None

PACKING GROUP: None

DOT LABEL(S) REQUIRED: None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

RQ QUANTITY: None

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): CAS#101-68-8 5,000 Lbs

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

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

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 1272/2008/EC and subsequent Directives.

See Section 2 for Details

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency

ARD: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Paul Eigbrett – **(GHS MSDS Compliance PLUS)**

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 manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Bayvex Technologies assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Bayvex Technologies assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET