

SECTION 1: CHEMICAL AND MANUFACTURER IDENTIFICATION

Product Name: MENDER CROSSLINKER

Product Code: 3645J271

**Manufactured for Vital Coat
 by: A.P. Nonweiler Co., Inc.**
 3321 County Road A
 PO Box 1007
 Oshkosh, WI 54903-1007
 844-284-2858
 E-mail: info@nxtproducts.com

24 Hour Emergency: INFOTRAC: 1-800-535-5053

Outside U.S. and Canada: Infotrac: 352-323-3500

INFOTRAC Customer ID: 72826

NOTE: INFOTRAC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

Product Use:

Not recommended for:

Because many of the conditions are within the user's knowledge and control, it is essential that the user evaluate and determine whether the product is suitable and appropriate for a particular use and intended application, and complies with all local applicable laws, regulations, standards, and guidance.

SECTION 2: HAZARD(S) IDENTIFICATION

GHS Classification Scale

1=Severe Hazard; 4=Slight Hazard

GHS Ratings:

Flammable liquid	3	Flash point $\geq 23^{\circ}\text{C}$ and $\leq 60^{\circ}\text{C}$ (140°F)
Oral Toxicity		
Inhalation Toxicity	Acute Tox. 4	Gases $>2500+\leq 20000\text{ppm}$, Vapors $>10+\leq 20\text{mg/l}$, Dusts&mists $>1+\leq 5\text{mg/l}$
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: $\geq 2.3 < 4.0$ or persistent inflammation
Eye corrosive	2A	Eye Irritation: Reversible adverse effects on cornea, iris, conjunctiva, Draize score: Corneal opacity ≥ 1 , Iritis > 1 , Redness ≥ 2 , Chemosis ≥ 2
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Organ toxin single exposure	3	Transient target organ effects- Narcotic effects- Respiratory tract irritation
Organ toxin repeated exposure	2	Presumed to be harmful to human health- Animal studies with significant toxic effects relevant to humans at generally moderate exposure (guidance)- Human evidence in exceptional cases

GHS Hazards

H226 Flammable liquid and vapour

GHS Precautions

H315	Causes skin irritation	P210	Keep away from heat, sparks, open flames and hot surfaces. No smoking!
H317	May cause an allergic skin reaction	P233	Keep container tightly closed
H319	Causes serious eye irritation	P240	Ground / bond container and receiving equipment
H332	Harmful if inhaled	P241	Use explosion-proof electrical, ventilating, lighting equipment
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled	P242	Use only non-sparking tools
H336	May cause drowsiness or dizziness	P243	Take precautionary measures against static discharge
H373	May cause damage to organs through prolonged or repeated exposure	P260	Do not breathe dust/fume/gas/mist/vapours/spray
		P261	Avoid breathing dust/fume/gas/mist/vapours/spray
		P264	Wash thoroughly after handling
		P271	Use only outdoors or in a well-ventilated area
		P272	Contaminated work clothing should not be allowed out of the workplace
		P280	Wear protective gloves, protective clothing, eye protection, face protection
		P285	In case of inadequate ventilation wear respiratory protection
		P312	Call a POISON CENTER or doctor/physician if you feel unwell
		P314	Get Medical advice/attention if you feel unwell
		P321	Specific treatment (see first aid section on this label/SDS)
		P362	Take off contaminated clothing and wash before reuse
		P363	Wash contaminated clothing before reuse
		P302+P352	IF ON SKIN: Wash with soap and water
		P303+P361+P353	IF ON SKIN (or hair): Remove / Take off all contaminated clothing immediately. Rinse skin thoroughly with water / shower
		P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
		P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
		P305+P351+P338	IF IN EYES: Rinse continuously with cool water for at least 15 minutes.
		P332+P313	If skin irritation occurs: Get medical advice/attention
		P333+P313	If skin irritation or a rash occurs: Get medical advice/attention
		P337+P313	If eye irritation persists get medical advice / attention
		P342+P311	Call a POISON CENTER or doctor/physician
		P370+P378	In case of fire: Use dry chemical / CO2 / foam for extinction

P405
P403+P233

Store locked up
Store in a well ventilated area. Keep
container tightly closed.

P403+P235
P501

Store in a well ventilated area. Keep cool
Dispose of contents / container to an
approved waste disposal facility

Danger



SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Solvent naphtha, petroleum, light aromatic 64742-95-6 40 to 50%			
4,4'-Methylenediphenyl diisocyanate 101-68-8 10 to 20% Vapor Pressure: .001 mmHg		0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	NIOSH: 0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m ³ TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)
Benzene, 1,2,4-trimethyl- 95-63-6 5 to 10% Vapor Pressure: 1 mmHg			NIOSH: 25 ppm TWA; 125 mg/m ³ TWA
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9 5 to 10%			
Benzene, 1-isocyanato-2-[(4-isocyanato phenyl)methyl]- 5873-54-1 4 to 5%			

SECTION 4: FIRST AID MEASURES

Inhalation: Move affected person to fresh air. If breathing has stopped, administer CPR. If the person vomits, clean the airway and turn their head to the side to prevent choking. If the person is unconscious but breathing, place them stably on their left side in the recovery position. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Eyes: Flush eyes gently with clean water for at least 15 minutes. If irritation persists, seek immediate medical attention.

Skin: Remove any contaminated clothing using appropriate gloves. Rinse skin thoroughly for 15 minutes in a shower or with a hose. Seek immediate medical attention.

Ingestion: Rinse mouth with water to remove any residual chemical. If the person vomits, clean their airway and turn their head to the side to prevent choking. DO NOT induce vomiting and DO NOT give them anything to drink unless directed to do so by a physician. If the person is unconscious but breathing, place them stably on their left side in recovery position. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Additional Notes to Physician - Treat symptomatically. No specific antidote available

SECTION 5: FIREFIGHTING MEASURES

LEL: N/A

UEL: N/A

Suitable Extinguishing Media:

Foam

Carbon Dioxide (CO₂)

Dry Chemical

Specific Hazards During Firefighting: Prevent firefighting run-off from entering drains or sewers.

Byproducts of Combustion: Fires involving this product may release oxides of carbon and nitrogen, reactive hydrocarbons, and irritating vapors.

Unusual Fire and Explosion Hazards: Any closed container may rupture when exposed to extreme heat. Use a water spray to cool sealed containers. Solvent vapors are heavier than air and can travel along the ground.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill / Leak Clean-Up Procedures:

Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spills, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers. If a large spill occurs notify the appropriate authorities.

In case of road spill or accident contact CHEMTREC (800-424-9300).

CAUTION: If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will also be regulated.

Do not empty into drains. All disposal must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.

SECTION 7: HANDLING AND STORAGE

Handling Precautions:

Open containers carefully and in a well ventilated area, and use appropriate respiratory protection. Wash hands thoroughly after handling. Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers contain product residue which may exhibit hazardous properties therefore, do not pressurize, cut, glaze, weld or use for any other purpose. Return drums to reclamation center for proper cleaning and reuse.

Storage Requirements:

Store in a cool, dry, well ventilated area. Keep containers tightly closed and store away from heat, sparks, open flame or oxidizing materials. Extended storage at excessive temperatures may produce odorous and toxic fumes from product decomposition.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION			
Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Solvent naphtha, petroleum, light aromatic 64742-95-6			
4,4'-Methylenediphenyl diisocyanate 101-68-8		0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	NIOSH: 0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m ³ TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)
Benzene, 1,2,4-trimethyl- 95-63-6			NIOSH: 25 ppm TWA; 125 mg/m ³ TWA
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9			
Benzene, 1-isocyanato-2-[(4-isocyanato phenyl)methyl]-			

Engineering Controls: Avoid creating dust or mist. Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid over exposure. Use explosion-proof ventilation equipment. Do not use in closed or confined spaces. Keep all levels below exposure limits. Perform regular monitoring to ensure exposure limits are not exceeded.

Personal Protective Equipment (PPE):

Respiratory Protection - Do not breathe vapors. When concentrations exceed the established limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA) until vapors are exhausted. Observe OSHA standard 29 CFR 1910.134 and ANSI Z88.2 requirements whenever workplace conditions require a respirators use.

Hand Protection - Wear appropriate protective gloves and clothing to prevent skin exposure. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product.

Eye Protection - Use safety eyewear with splash guards or side shields. Use additional eye protection such as chemical safety goggles when the possibility for eye contact from splashing, spraying liquid, or airborne material exists.

Skin Protection - Avoid contact with this product. Wear appropriate protective gloves and clothing to prevent skin

exposure. Use proper glove and clothing removal techniques to avoid skin contact with this product. When handling large quantities, eye wash stations and deluge showers should be available.

Hygiene Measures:

General - When using do not eat or drink. Wash hands with soap and water before breaks and at the end of each workday.

Contaminated Equipment - Avoid contact with contaminated clothing and protective gear/equipment. Wash before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

This mixture typically exhibits the following properties under normal circumstances:

Appearance Liquid Dispersion Physical State Liquid Lbs VOC/Gallon Less Water 4.25 g VOC/L Less Water 509.02	Odor Organic Solvent Specific Gravity (SG) 1.020 Flash point: 40 C, 104 F Boiling range: 169°C
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SECTION 10: STABILITY AND REACTIVITY

Product Stability (under normal conditions):

STABLE

Incompatible Materials: Strong acids, strong bases, oxidizing agents

Hazardous Decomposition Products: Carbon Dioxide (CO₂), Carbon Monoxide (CO), Oxides of Nitrogen (NO_x), dense black smoke

Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Mixture Toxicity

Inhalation Toxicity: 1.00mg/L

Component Toxicity

Principle Routes of Exposure:

Inhalation Skin Contact Eye Contact Ingestion

May cause damage to the following organs:

Blood Eyes Central Nervous System Skin Respiratory System

Effects of Overexposure

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing) or ACGIH (optional listing):

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
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SECTION 12: ECOLOGICAL INFORMATION

Bioaccumulative Potential: No data available
Mobility in Soil: No data available
Persistence and Degradability: No data available

Component Ecotoxicity

Solvent naphtha, petroleum, light aromatic	96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L 48 Hr EC50 Daphnia magna: 6.14 mg/L
Benzene, 1,2,4-trimethyl-	96 Hr LC50 Pimephales promelas: 7.19 - 8.28 mg/L [flow-through] 48 Hr EC50 Daphnia magna: 6.14 mg/L

SECTION 13: DISPOSAL CONSIDERATIONS

Do not discharge product into sewer system. Dispose of in a licensed facility. Waste management should be in full compliance with federal, state, and local laws.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate.

SECTION 14: TRANSPORT INFORMATION

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
U.S. DOT	Paint	1263	III	3

SECTION 15: REGULATORY INFORMATION

Additional regulatory listings where applicable

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) This product contains a chemical or chemicals which are subject to the reporting requirements of the Act, and Title 40, of the Code of Federal Regulations, part 372:

101-68-8 4,4'-Methylenediphenyl diisocyanate

Canadian DSL All substances in this product except those listed below are listed or exempt from reporting:

5873-54-1 Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-

9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester

101-68-8 4,4'-Methylenediphenyl diisocyanate

Clean Air Act, Section 112, Hazardous Air Pollutants (HAPs) (see 40 CFR 61) This product contains the following substance(s) which are listed as hazardous air pollutants (HAPs) per the Clean Air Act:

101-68-8 4,4'-Methylenediphenyl diisocyanate

Massachusetts Right To Know This product contains the following toxic or hazardous substance(s) which appear on the Massachusetts Substance List:

95-63-6 Benzene, 1,2,4-trimethyl-

101-68-8 4,4'-Methylenediphenyl diisocyanate

New Jersey Worker and Community Right to Know Hazardous Substance List The following substance(s) appear on the New Jersey Right to Know Hazardous Substance List:

9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester

95-63-6 Benzene, 1,2,4-trimethyl-

Commonwealth of Pennsylvania Worker and Community Right To Know Act This product contains the following substance(s) which appear on the Pennsylvania Hazardous Substance List:

95-63-6 Benzene, 1,2,4-trimethyl-
101-68-8 4,4'-Methylenediphenyl diisocyanate

TSCA Substance Control Act (TSCA) All substances except those listed below appear in the Toxic Substances Control Act, Chemical Substance Inventory:

- None

SECTION 16: OTHER INFORMATION

Disclaimer: The Volatile Organic Compound (VOC) content reported herein, if any, is based on a material VOC calculation. Several methods are used for the calculation of VOC content, and the standards and requirements regarding VOC content vary by location or jurisdiction.

This document has been prepared using data from sources considered to be technically reliable and is believed to be correct as of the date hereof. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use and handling are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use, and to comply with all federal, state, provincial, and local laws and regulations.

Date Prepared: 11/9/2022

Reviewer Revision

Revision Notes: