Carolina Narrow Fabric Company

SAFETY DATA SHEET

NAME OF PRODUCT: Orthopedic Cast Tape

FILE NO.:
SDS DATE: 8/2024

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Orthopedic Cast Tape
SYNONYMS: Casting Bandages
PRODUCT CODES:

MANUFACTURER: Carolina Narrow Fabric Company
DIVISION:
ADDRESS: 1100 Patterson Ave, Winston Salem, NC 27001

EMERGENCY PHONE: 336 631 3000
CHEMTREC PHONE: 800-424-9300
OTHER CALLS:
FAX PHONE: 336 631 3060

CHEMICAL NAME: Fiber Glass/Polyurethane
CHEMICAL FAMILY:
CHEMICAL FORMULA:

PRODUCT USE: Orthopedic cast bandage provides external immobilization for fractures and other orthopedic conditions.
PREPARED BY: Carolina Narrow Fabric Company

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: There is evidence that dermal and respiratory sensitization can occur from prolonged exposure to the polyurethane prepolymer.

ROUTES OF ENTRY: Respiratory, Ingestion, Skin, Eyes

POTENTIAL HEALTH EFFECTS

EYES: Unset resin can be an irritant if in direct contact with eyes. May cause corneal damage.

SKIN: Unset resin may stick to skin and cause irritation. Prolonged contact symptons may include redness and rash. There is some evidence that respiratory sensitization can occur through repeated skin contact.

INGESTION: Although unlikely, small amounts ingested are not likely to cause injury. Gastrointestinal irritation may result from swallowing large amounts.

INHALATION: At room temperatures vapors are minimal due to low volatility. At temperatures higher than 120°F isocyanate containing fumes may be generated. Low concentrations may cause asthmatic symptoms in hypersensitive people. Excess exposure may cause irritation to the upper respiratory tract and lungs, also may cause pulmonary edema

ACUTE HEALTH HAZARDS: . Decreased lung function has been associated with overexposure to isocyanates.

CHRONIC HEALTH HAZARDS: Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposure to MDI/Polymeric MDI aersols

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing respiratory problems may be aggravated by prolonged exposure to this material.

CARCINOGENICITY: Industrial experience in humans has not shown any links between exposure to MDI based products andcancer development.

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SECTION 2 NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Heat cleaned fiberglass fabric, Polyurethane

CAS NO.	% WT
Fiberglass cloth – not assigned	60-70
Polyurethane prepolymer of MDI and Polyether Polyol - 264477-40-5	18-22
Isocyanate4,4 Diphenylmethane Diioscyante And higher oligomers - 101-68-8	16-22
Surfactant	<1
Stabilizer	<1

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Obtain medical attention without delay.

SKIN: Remove material from skin immediately by washing with soap and water. Remove contaminated clothing and wash before reuse or discard. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important and that a polyglycol based skin cleanser or corn oil may be more effective than soap and wate.r

INGESTION: Do not induce vomiting. Get medical advice

INHALATION: Remove to fresh air. If breathing is difficult oxygen should be administered by qualified personnel and seek medical help

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically.

SECTION 4 NOTES: Persons receiving significant exposure should be observed for 24-48 hours for signs of respiratory distress.

SECTION 5: FIRE-FIGHTING MEASURE

FLASH POINT:
F:
C: >200
METHOD USED:

AUTOIGNITION TEMPERATURE: Not available

NFPA HAZARD CLASSIFICATION
HEALTH: 3 **FLAMMABILITY:** 1 **REACTIVITY:** 1
OTHER:

HMIS HAZARD CLASSIFICATION
HEALTH: 3 **FLAMMABILITY:** 1 **REACTIVITY:** 1
PROTECTION:

EXTINGUISHING MEDIA: Water fog or fine spray. Dry chemical, Carbon dioxide fire extinguishers. foam and alcohol resistant foams are preferred. General purpose synthetic foams or protein foams may function but will be less effective. If water is used it should be used in large quantities. The reaction between water and hot isocyanate may be vigorous.

SPECIAL FIRE FIGHTING PROCEDURES: Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire MDI vapors and othe irritating, highly toxic gases may be gererated by thermal decomposition or combustion. Above 400°F polymeric MDI can polymerize and decompose which can cause pressure build up in closed containers resulting in explosive rupture

UNUSUAL FIRE AND EXPLOSION HAZARD. The material reacts slowly with water releasing carbon dioxide which can cause pressure build up in closed containers. Dense smoke is produced when this material burns.

HAZARDOUS DECOMPOSITION PRODUCTS: The smoke may contain the original material in addition to combustion of varying composition which may be toxic and/or irritating. Combustion products may include but not limited to nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide and carbon dioxide

SECTION 5 NOTES: Do not use direct water stream. May spread fire

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Provide adequate ventilation. Stay upwind of the spilled material. Absorb the viscous resin with sawdust or absorbent. Store material temporarily in an open container and treat absorbed material with a solution or water, ammonia and isopropanol before disposal.

SECTION 6 NOTES: If a large amount of resin is present wash the spill site with large quantities of water. Attempt to neutralize by adding decontaminant solution: sodium carbonate 5-10%; liquid detergent 0.2-2% and water to make up 100%

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use appropriate personal protective equipment . Do not eat, drink, or smoke in areas where this material is handled. Store in accordance with local regulations. Avoid breathing vapor. Always wear gloves when handling this product.

OTHER PRECAUTIONS: Store in a cool, dry, well ventilated area away from strong oxidizing agents. During storage avoid contact with water, alcohols, strong bases, metal compounds or surface active materials

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide good ventilation controls when unset resin is exposed or when removing the cast.

VENTILATION : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

RESPIRATORY PROTECTION: Maintain good ventilation when product is being applied or removed

EYE PROTECTION: Safety glasses with side shields

SKIN PROTECTION: Avoid prolonged skin contact. Rubber, pvc or neoprene gloves should be worn to prevent skin contact with the unset resin

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: . Wear rubber or plastic apron to protect skin and clothing.

WORK HYGIENIC PRACTICES: N/A

EXPOSURE GUIDELINES: Isocyanates (NCO while the tape is curing) TWA- 0.02 mg/m^3; STEL 0.07mg/m^3
Nuisance dust while the tape is being removed or machined TWA 10mg/m^3

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Fiber Glass fabric coated with a viscous resin

ODOR: no distinctive odor

pH AS SUPPLIED: N/A

FLASH POINT (Open cup): >200°C

BOILING POINT:
F: 590 Decomposes
C:

MELTING POINT: No data available

FREEZING POINT: No data available

VAPOR PRESSURE (mmHg): 0.003
@
F:
C: 25

VAPOR DENSITY (AIR = 1): >1 Estimated

SPECIFIC GRAVITY (H2O = 1): 2.5 glass; 1.11 resin

EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Insoluble, resin reacts with water producing carbon dioxide

PERCENT VOLATILE:
BY WT/ BY VOL – a small amount of CO_2 is released during cure

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

MOLECULAR WEIGHT: N/A
VISCOSITY: N/A

SECTION 9 NOTES: Reaction of resin with water during cure is exothermic

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable at room temperature

CONDITIONS TO AVOID (STABILITY): Contamination with water and exposure to heat

INCOMPATIBILITY (MATERIAL TO AVOID): Avoid contact with water, alcohols, strong bases, metal compounds or surface active materials.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxide, oxides of nitrogen, traces of hydrogen cyanide, MDI vapors or aerosols

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): Heat sources and accidental water contamination

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:
Ingestion- Single dose LD 50 has not been determined
Dermal- The dermal LD50 has not been determined. The unset resin may cause skin sensitization. Cured material is difficult to remove.
Inhalation- At temperatures above 120°F isocyanate containing fumes may be generated. Very low concentrations may cause asthmatic symptoms in hypersensitive people. Short term exposure over the standard exposure limit may include breathing difficulties and sensitisation
Eye- May cause eye irritation and temporary corneal injury
Chronic- Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/Polymeric MDI Aerosols. Chronic exposure may cause skin irritation and sensitization.
Carcinogenicity – Industrial experience in humans has not shown any links between exposure to MDI based products and cancer development.

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: The material is not considered to be dangerous to aquatic organisms. In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment the material is expected to have a short tropospheric half life based on calculations and by analogy with related diisocyanates

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of via a licensed waste disposal contractor. Dispose of in accordance with local and Federal laws and regulations. Allow the material to cure and dispose of in a standard industrial landfill. Material may be incinerated in an approved facility.

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
PROPER SHIPPING NAME: Polyurethane coated fiberglass
HAZARD CLASS: non hazard
ID NUMBER:
PACKING GROUP:
LABEL STATEMENT:

WATER TRANSPORTATION
PROPER SHIPPING NAME: Polyurethane coated fiberglass
HAZARD CLASS: non hazard
ID NUMBER:
PACKING GROUP:
LABEL STATEMENTS:

AIR TRANSPORTATION
PROPER SHIPPING NAME: Polyureathane coated fiberglass
HAZARD CLASS: non hazard
ID NUMBER:

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OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All components are listed or exempted

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): This product contains 4,4'-Methylenediphenyl diisocyanate CAS # 101-68-8 at <12% which are subject to CERCLA Section 103.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

311/312 HAZARD CATEGORIES:

- **Fire- yes**
- **Reactive- yes**
- **Release of pressure- no**
- **Acute Health Hazard- yes**
- **Chronic Health Hazard- yes**

STATE REGULATIONS: Not regulated

INTERNATIONAL REGULATIONS: Not regulated

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: Original Document **Revision 0**

PREPARATION INFORMATION:

DISCLAIMER: The information contained in this data sheet is based on present scientific and technical knowledge . The purpose of this information is to demonstrate the health and safety aspects concerning these products supplied by CNF and to recommend precautionary measures for the storage and handling of these products. No warranty or guarantee is given in respect of the properties of these products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.