
SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION:

Product name: NUFLEX® 480 POLYURETHANE ADHESIVE
Recommended use: Polyurethane Adhesive
Restrictions on use: No further information available
Manufacturer: NUCO INC.
150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-823-4994
Fax: (519)-823-1099

Emergency telephone: Infotrac 24 Hour Emergency Tel: (800)-535-5053

SECTION 2 – HAZARDS IDENTIFICATION:

GHS Classification: Skin irritation – Category 2
Eye irritation – Category 2B
Respiratory sensitization – Category 1
Skin sensitization – Category 1
Carcinogenicity – Category 1B
Specific Target Organ Toxicity-Repeated Exposure (Inhalation) – Category 2

GHS Label elements:

Hazard symbols:



Signal word: Danger

Hazard statements: H315 Causes skin irritation
H317 May cause an allergic skin reaction
H320 Causes eye irritation
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350 May cause cancer
H373 May cause damage to organs (olfactory organs) through prolonged or repeated exposure (inhalation)

Precautionary statements:

Prevention: P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/gas/mist/vapors.
P262 Do not get in eyes, on skin or on clothing.
P264 Wash hands and other skin areas thoroughly after handling
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection

Response : P303+P352 If on skin: wash with plenty of soap and water.
P304+P341+P311 If inhaled: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
P305+P351+P338 If in eyes, rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P311 If exposed or concerned: Call a POISON CENTER or doctor/physician.
P337+P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash it before reuse.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents and container in accordance with applicable local, regional, national and international regulations.

Other hazards: Contains isocyanates. Inhalation of isocyanate mist or vapors may cause respiratory irritation, breathlessness, chest discomfort and reduced pulmonary function. Overexposure well above the PEL may result in bronchitis, bronchial spasms and pulmonary edema. Long term exposure to isocyanates has been reported to cause lung damage, including reduced lung function which may be permanent. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic respiratory reactions including wheezing, shortness of breath and difficulty breathing. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

Supplemental information: No further information available.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS:

Substance/Mixture : Mixture

Chemical Name	CAS No.	Concentration (%)
Talc	14807-96-6	25.0 – 50.0
Hydrotreated Middle Petroleum Distillates	64742-46-7	7.0 – 10.0
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	10.0 – 15.0
Methylenediphenyl Diisocyanate	26447-40-5	3.0 – 5.0
Polymeric MDI Isocyanate (PMDI)	9016-87-9	1.0 – 3.0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

SECTION 4 - FIRST AID MEASURES:

Eye contact: Flush with copious quantities of lukewarm water for at least 15 minutes. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately if irritation persists.

Skin contact: Remove contaminated clothing. Use of a mild solvent, such as mineral spirits, may help in removing uncured residue from clothing or other surfaces (avoid eye/skin contact). Wash thoroughly with warm water and non-abrasive soap. Seek medical attention if you feel ill or a reaction develops.

Inhalation: Remove to fresh air and provide water. Seek medical attention if you feel ill or a reaction develops.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms/effects, acute and delayed: Respiratory sensitization may result in allergic (asthma-like) signs in lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposures.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES:

Suitable extinguishing media: Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers.

Unsuitable extinguishing media: Water jet. Water stream directed into fire may cause frothing with subsequent spread of fire.

Specific hazards arising from the chemical: Nitrogen oxides, fumes/smoke, isocyanate, vapor.

Special protective equipment and precautions for fire fighters:

Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.

SECTION 6 – ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures:

Follow safe handling advice and personal protective equipment recommendation in Section 8.

Environment precautions:

Discharged into the environment must be avoided. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:

Restrict access to the area of the spill. Provide ventilation and protective clothing. Scrape up adhesive and place in container for disposal. Clean area as appropriate since the adhesive may represent a slip hazard. Cleaning may require detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup.

SECTION 7 – HANDLING AND STORAGE:

Precautions for safe handling:

Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage, including any incompatibilities:

Store in an adequately ventilated area under dry conditions between 50°F (10°C) to 77°F (25°C) and keep container tightly sealed when not in use.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Control Parameters:

Ingredient	CAS No.	Value Type (form of exposure)	Control parameters/ Permissible concentration	Basis
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	CLV	0.02 ppm, 0.2 mg/m ³	OSHA PEL
		TWA	0.005 ppm	ACGIH TLV
Polymeric MDI Isocyanate (PMDI)	9016-87-9	CLV	0.02 ppm, 0.2 mg/m ³	OSHA PEL
		TWA	0.005 ppm	ACGIH TLV
Talc	14807-96-6	TWA (respirable)	20 millions of particles per cubic foot of air	OSHA PEL
		TWA (respirable)	0.1 mg/m ³	OSHA PEL
		TWA (total dust)	0.3 mg/m ³	OSHA PEL
		TWA (respirable fraction)	2 mg/m ³	ACGIH TLV
Hydrotreated Middle Petroleum Distillates	64742-46-7	TWA (mist)	5 mg/m ³	OSHA PEL
		PEL (mist)	5 mg/m ³	OSHA PEL

Engineering controls:

Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations. Wear a NIOSH / MSHA approved respirator when exposure limits are exceeded.

In indoor applications, passive ventilation (opening of doors and windows) is recommended. Local exhaust as necessary to keep exposure levels within guidelines.

Personal protective equipment: Safety glasses with side-protection, impermeable gloves (e.g., neoprene, nitrile, silver shield (R)), coveralls or apron are important in preventing contamination of eyes, skin and clothing. Wash thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Paste
Odor:	Mild odor
Odor threshold:	Not available
pH (ASTM D1293):	Neutral to slightly alkaline
Melting point/Freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	>200°F (93.34°C)
Evaporation rate:	Not available
Flammability (solid, gas):	Not determined
Upper explosion limit:	10.2% by volume
Lower explosion limit:	1.6% by volume
Vapor pressure:	No data available
Vapor density:	Heavier than air
Specific gravity:	1.26
Solubility:	Slightly soluble in water
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable
Volatile Organic Content:	45 grams per liter (3.57% by weight)

SECTION 10 – STABILITY AND REACTIVITY:

Reactivity:	No hazardous reactions if stored and handled as indicated.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Will not occur when handled properly.
Conditions to avoid:	Moisture and incompatible materials.
Incompatible materials:	Strong oxidizing agents or electrophiles and bases or acids. Alcohols and amine hardeners.
Hazardous decomposition products:	No hazardous decomposition products if stored and handled as indicated.

SECTION 11 - TOXICOLOGICAL INFORMATION:**Information on the likely routes of exposure:**

Inhalation:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion:	May be harmful if swallowed.
Skin contact:	May cause an allergic skin reaction.
Eye contact:	May cause serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics: No information available.

Acute toxicity: Virtually non-toxic after a single skin contact.
Virtually non-toxic by inhalation.
Virtually non-toxic after a single ingestion.

Skin corrosion/irritation: Skin contact may result in dermatitis, either irritative or allergic.
Serious eye damage/irritation: May cause eye irritation.
Aspiration hazard: Study scientifically not justified.
Specific target organ toxicity - single exposure: May cause respiratory irritation.

Specific target organ toxicity – repeated exposure:

May cause damage to the lungs, central nervous system and skin.
May cause damage to the olfactory epithelium after repeated inhalation.

Respiratory or skin sensitization:

May cause skin and respiratory sensitization. Chronic overexposure to isocyanates has also been reported to cause lung damage. Prolonged contact can cause reddening, swelling, rash, scaling or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with a very small amounts of liquid material or even as a result of vapour-only exposure.

Carcinogenicity:

4,4'-Diphenyl Diisocyanate (MDI) (CAS# 101-68-8) and Polymethylene Polyphenyl Isocyanate (PMDI) (CAS# 9016-87-9): IARC Group 3 Carcinogen- Not classified as to its carcinogenicity to humans. Not listed as a carcinogen by ACGIH, OSHA or NTP.
MDI/PMDI did not cause birth defects in laboratory animals. Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/PMDI (6 mg/m³) for their lifetime.
Hydrotreated Middle Petroleum Distillates (CAS# 64742-46-7) caused cancer in animal studies.
Methylenediphenyl diisocyanate (CAS# 26447-40-5): A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure.

Reproductive toxicity:

Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Teratogenicity:

The substance did not cause malformations in animal studies. However, toxicity to development was observed at high doses that were toxic to the parental animals.

Germ-cell mutagenicity:

The substance was mutagenic in various bacterial test systems. However, these results could not be confirmed in tests with mammals.

SECTION 12 – ECOLOGICAL INFORMATION:

Ecotoxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability:

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential:

Will not bioaccumulate.

Mobility in soil:

Will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Other adverse effects:

Do not allow material to run into surface waters, wastewater or soil.
An environmental hazard can not be excluded in the event of unprofessional handling or disposal.

SECTION 13 – DISPOSAL CONSIDERATIONS:

Waste disposal:

Dispose of in accordance with Federal, State / Provincial and local regulations.
Do not discharge into drains/surface waters/ground water.

SECTION 14 - TRANSPORT INFORMATION:

Shipping information:

Not subject to DOT, TDG, IMDG Code or IATA Regulations.

Further information:

DOT: This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity (RQ). Refer to Section 15 for the RQ for this product.

SECTION 15 - REGULATORY INFORMATION:**U.S. Federal Regulations:****SARA 302/304 Extremely Hazardous Substances:**

No components of this product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification:

No components of this product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

SARA 313: MDI and PMDI are subject to the reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

Comprehensive Response Compensation and Liability Act (CERCLA):

This product contains the following CERCLA reportable substance:

4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8): RQ- 2,268 kg (5,000 lbs).

Polymeric MDI isocyanate (PMDI) (CAS# 9016-87-9): RQ- 2,268 kg (5,000 lbs).

Phosphoric acid (CAS# 7664-38-2): RQ- 2,268 kg (5,000 lbs).

Methylethylketone (CAS# 78-93-3): RQ- 2,268 kg (5,000 lbs).

Iron trichloride (CAS# 7705-08-0): RQ- 453.6 kg (1,000 lbs).

Chlorobenzene (CAS# 108-90-7): RQ- 45.36 kg (100 lbs).

U.S. State Regulations:

California Proposition 65: This product contains trace amount of substances known to the State of California to cause cancer or other reproductive harm.

State Substance List: This product contains a listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts, Minnesota, Rhode Island and New Jersey: talc (CAS#14807-96-6); methylenediphenyl diisocyanate (CAS# 26447-40-5); 4,4'-Diphenylmethane Diisocyanate (MDI) (CAS# 101-68-8) and Polymeric MDI Isocyanate (CAS# 9016-87-9).

The ingredients of this product are reported in the following inventories:

TSCA: All components of this product are listed or exempted from listing on the TSCA inventory of Chemical Substances. This product is not subject to TSCA 12(b) Export Notification.

DSL: All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempted from listing on the Canadian Domestic Substances List (DSL).

NFPA Profile: Health 2, Flammability 1, Reactivity 0

SECTION 16 - OTHER INFORMATION:

Prepared by: Technical Services Department

Revision date: April 28, 2015

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.