
MATERIAL SAFETY DATA SHEET

SECTION 01 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

Chemical Name: **NUFLEX® 460 LANDSCAPE ADHESIVE**
Manufacturer: **NUCO INC.**
150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-823-4994
Fax: (519)-823-1099
Infotrac 24 Hour Emergency Tel: (800)-535-5053
Date: April 5, 2011
Prepared by: Technical Services Department
WHMIS Classification: B2, D2A, D2B
Product Use: Landscape Adhesive

SECTION 02 – COMPOSITION / INFORMATION ON INGREDIENTS:

<u>Ingredients</u>	<u>CAS No.</u>	<u>%</u>	<u>LD50(Oral-Rat)</u>	<u>LC50(Inhalation-Rat)</u>
Acetone	67-64-1	10.0 – 25.0	5,800 mg/kg	50,100 mg/m ³ (8 h)
n-Hexane	110-54-3	10.0 – 25.0	15,840 mg/kg	48,000 ppm (4 h)
Toluene	108-88-3	5.0 – 10.0	636 mg/kg	49,000 mg/m ³ (4 h)

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555 or 29 CFR 1910.1200

SECTION 03 – HAZARDS IDENTIFICATION:

ROUTES OF ENTRY INTO THE BODY (ACUTE EFFECTS):

Eyes: Direct contact can cause severe irritation and possible damage to eyes.
Skin: Prolonged or repeated skin contact can cause irritation.
Inhalation: Avoid breathing vapor or mists. May cause headaches and dizziness. High vapor concentrations are irritating to the nose, throat and lungs and can cause central nervous system depression and chemical pneumonitis resulting from aspiration into the lungs following ingestion. Vapors can readily accumulate in confined or poorly ventilated areas.
Ingestion: Low ingestion hazard in normal use. Harmful if swallowed. Can cause nausea, vomiting, stomach pain and diarrhea.

WHMIS HAZARD SYMBOL(S):



DANGER: EXTREMELY FLAMMABLE, VAPOR HARMFUL

SECTION 04 - FIRST AID MEASURES:

Eyes: Can cause severe eye irritation. Flush with copious quantities of lukewarm water. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately.
Skin: May be harmful if absorbed through skin and may produce kidney, liver and central nervous system damage. Remove contaminated clothing. Wash thoroughly with warm water and non-abrasive soap.
Inhalation: Remove to fresh air. Seek medical attention if you feel ill or a reaction develops. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias (irregular beating) in persons exposed to high concentrations of n-hexane. If used, monitor heart action closely. Consider use of other drugs with less arrhythmogenic potential.
Ingestion: Call poison control center immediately. Follow their specific instructions. Do not induce vomiting.

SECTION 05 - FIRE FIGHTING MEASURES:

Flammable Conditions:	VAPORS CAN IGNITE EXPLOSIVELY AND CAN CAUSE FLASH FIRE. Never use around sparks, flames or other sources of ignition.
Extinguishing Media:	Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers to prevent pressure build-up and possible explosion.
Fire Fighting Measures:	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.
Flash Point:	Less than 0°F(-18°C) - Setflash
Flammability Limits:	Lower Explosion Limit - 1.2% by volume Upper Explosion Limit – 12.8% by volume
Autoignition Temperature:	Not available
Hazardous Decomposition Products:	Carbon oxides and traces of incompletely burned carbon products.
Sensitivity - Impact:	Not available
Static:	Not available

SECTION 06 – ACCIDENTAL RELEASE MEASURES:

Containment / Clean Up:	Restrict access to the area of the spill to personnel with suitable training. Provide ventilation and protective clothing. Scrape up adhesive (use non-sparking equipment) and place in container for disposal. 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.
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SECTION 07 – HANDLING AND STORAGE:

Handling and Storage:	Store under dry conditions, below 110°F (43°C) and keep container tightly sealed when not in use. Use only in well ventilated area. Containers may retain product residues and vapors. Store large quantities in buildings designed and protected for storage of NFPA Class 1-B flammable materials.
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SECTION 08 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Component Exposure Limits:	<u>Acetone (CAS# 67-64-1):</u> Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: 500 ppm, ACGIH STEL: 750 ppm and OSHA PEL: 1,000 ppm. <u>n-Hexane (CAS# 110-54-3):</u> Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: 50 ppm and OSHA PEL: 500 ppm. <u>Toluene (CAS# 108-88-3):</u> Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: 20 ppm and OSHA PEL: 200 ppm.
Respiratory:	Wear an organic vapor NIOSH / MSHA approved respirator.
Ventilation:	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. Facilities storing or utilizing this product should be equipped with an eyewash facility and a safety shower.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Mastic
Odor and Appearance:	Solvent, beige color
Odor Threshold:	Not available

Specific Gravity:	1.06
Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Faster than n-butyl acetate
Boiling Point:	121°F (49°C)
Freezing Point:	Not available
pH:	Not applicable
Coeff. Oil/Water Distribution:	Not available

SECTION 10 – STABILITY AND REACTIVITY:

Chemical Stability:	Stable
Incompatible Materials:	Strong oxidizing agents, acids and bases.
Reactive Conditions:	Heat, sparks and open flame.
Hazardous Polymerization:	Will not occur under normal conditions of storage and use.

SECTION 11 - TOXICOLOGICAL INFORMATION:

Effects of overexposure:	Repeated and prolonged overexposure to the mixture of solvents listed in SECTION 02 can result in systemic effects including permanent brain, central and peripheral nervous system, eye, skin, blood, respiratory system, liver and kidney damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. n-Hexane (CAS# 110-54-3) and Toluene (CAS# 108-88-3) can cause chemical pneumonitis.
Sensitization:	Toluene (CAS# 108-88-3) can cause cardiac sensitization.
Carcinogenicity:	Acetone (CAS# 67-64-1): ACGIH A4: Not classifiable as a Human Carcinogen. Toluene (CAS# 108-88-3): IARC Group 3 - The agent (mixture or exposure circumstance) is not classifiable as to its carcinogenicity to humans and ACGIH A4: Not classifiable as a Human Carcinogen.
Reproductive Toxicity:	Toluene (CAS# 108-88-3) may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.
Teratogenicity:	Toluene (CAS# 108-88-3) is know to the State of California to cause birth defects or other reproductive harm.
Mutagenicity:	Not known
Synergistic Products:	Acetone (CAS# 67-64-1) is reported to potentiate the liver toxicity of chloroform.

SECTION 12 – ECOLOGICAL INFORMATION:

Air:	Complete information is not yet available.
Water:	Aquatic ecotoxicity data is available by contacting NUCO Inc.
Soil:	Complete information is not yet available.

SECTION 13 – DISPOSAL CONSIDERATIONS:

Waste Disposal:	Dispose in accordance with Federal, State / Provincial and local regulations.
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SECTION 14 - TRANSPORT INFORMATION:

Shipping Information:	<u>DOT CLASSIFICATION:</u> UN Number 1133, Class ORM-D; Packing Group III, Shipping Name - Consumer Commodity <u>TDG CLASSIFICATION:</u> UN Number 1133, Class 3, Packing Group III, Shipping Name - ADHESIVES, Containing Flammable Liquid, Limited Quantity. <u>IATA-DGR CLASS:</u> UN Number ID8000, Class 9, Packing Group III, Shipping Name – Consumer Commodity. <u>IMDG Class:</u> UN Number 1133, Class 3, Packing Group III, Shipping Name - ADHESIVES, Containing Flammable Liquid, Limited Quantity.
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SECTION 15 - REGULATORY INFORMATION:

TSCA Inventory Status:	Chemical components listed on TSCA inventory except as exempted.
NFPA Profile:	Health 2, Flammability 3, Reactivity 0
SARA TITLE III Chemical Listings:	<u>Section 302 Extremely Hazardous Substances:</u> None

Section 304 CERCLA Hazardous Substances: Toluene; acetone; n-hexane; styrene polymer with 1,3-butadiene.

Section 313 Toxic Chemicals (40 CFR 372): This product contains the following toxic chemicals which are subject to reporting under Section 313 (40 CFR Part 372): 10 - 25% Acetone (CAS# 67-64-1), 10 - 25% n-Hexane (CAS# 110-54-3) and 5 - 10% Toluene (CAS# 108-88-3).

DEA List I Precursor Chemicals:	Not listed
DEA List II Essential Chemicals:	Listed
Chemical Weapons Convention List:	
Schedule I Chemicals:	Not listed
Schedule II Chemicals:	Not listed
Schedule III Chemicals:	Not listed
State Substance List:	This product contains a listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts and New Jersey: n-hexane (CAS# 110-54-3); acetone (CAS# 67-64-1); and toluene (CAS# 108-88-3).
California Proposition 65 List:	Toluene (CAS# 108-88-3) as a Teratogen. Maximum acceptable dosage level: 7000 µg/day (ingestion).
Regulatory Volatile Organic Content:	VOC less water, less exempt compounds and LVP-VOCs: 282 grams per liter (26.6% by weight).
Domestic Substance List: Alberta, Ontario and Quebec	Chemical components listed on DSL except as exempted.
Designated Substances:	None of the components are listed.
Canadian ARET:	None of the components are listed.
Canadian NPRI:	The following components are listed: n-hexane (CAS# 110-54-3); and toluene (CAS# 108-88-3).

SECTION 16 - OTHER INFORMATION:

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.

Form: MSDS NUFLEX 460 LANDSCAPE ADHESIVE Rev.: 5 Date: 04/11