



Where life interacts with infrastructure.

# Material Safety Data Sheet

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## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Date of issue:** 12/15/2011  
**Product Name:** Nu Flow Potable Water  
Part B #720  
**Product Code:** RM 720  
**Trade Name:** Same  
**Emergency Number:** 1-800-834-9597

**Manufacturer:**  
Nu Flow Technologies (2000) Inc.  
1010 Thornton Road South  
Oshawa, Ontario  
L1J 7E2  
**Phone:** 1-800-834-9597 **Fax:** 905-433-9687

### REVISION NOTES

#### Updated Composition Information

\*\*\*\*\*EMERGENCY OVERVIEW\*\*\*\*\*

**HMIS HEALTH RATING 2    FLAMMABILITY 1    REACTIVITY 0**

Mobile liquid. Amber, Ammoniacal.

MODERATE EYE IRRITANT. MODERATE SKIN IRRITANT. MAY CAUSE SKIN SENSITIZATION.

IGNITION WILL GIVE RISE TO A CLASS B FIRE.

**IN CASE OF FIRE USE:** WATER SPRAY, CARBON DIOXIDE (CO2), DRY CHEMICAL, ALCOHOL FOAM.

**C.A.S. CHEMICAL NAME:** Mixture

**SYNONYMS:** None

**CHEMICAL FAMILY:** Polyamide

**EMPIRICAL FORMULA:** Mixture

**INTENDED USE:** Epoxy Curing Agent

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## SECTION 2: INGREDIENTS

CHEMICAL	PERCENTAGE
TRIETHYLENETETRAMINE CAS#112-21-3	<10
DIMER/TOFA, REACTION PRODUCTS WITH TETA CAS#68082-29-1	>90

## OSHA (ACGIH) EXPOSURE LIMITS

CAS# ppm	TWA mg/m <sup>3</sup> ppm			STEL mg/in <sup>3</sup> ppm		CEILING mg/m <sup>3</sup>
112-24-3	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)
68082-29-1	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)	N/E (N/E)

N/E = Not Established. All values in ( ) are U.S. ACGIH (American Conf. of Gov. Indust. Hygienists) - TLV; All others are OSHA - PEL.

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### SECTION 3: HEALTH HAZARDS

**ROUTES OF EXPOSURE:** INGESTION, SKIN ABSORPTION, INHALATION.

**EXPOSURE STANDARDS:** NO STANDARDS ESTABLISHED FOR THE PRODUCT.

**HEALTH HAZARDS:** MODERATE EYE IRRITANT. MODERATE SKIN IRRITANT. MAY CAUSE SKIN SENSITIZATION.

**TARGET ORGANS:** EYE, SKIN.

**SIGNS AND SYMPTOMS OF EXPOSURE (ACUTE EFFECTS):** CONTACT WITH EYES CAUSES IRRITATION, REDNESS AND DISCOMFORT, WHICH IS TRANSIENT. CONTACT WITH SKIN CAUSES IRRITATION, REDNESS AND DISCOMFORT, WHICH IS TRANSIENT. INHALATION OF VAPORS MAY CAUSE IRRITATION IN THE RESPIRATORY TRACT. INGESTION MAY CAUSE NAUSEA UNLESS TREATED PROMPTLY.

**SIGNS AND SYMPTOMS OF EXPOSURE (Possible Longer Term Effects):** REPEATED AND/OR PROLONGED EXPOSURE TO LOW CONCENTRATIONS OF VAPOR MAY CAUSE: SORE THROAT, EYE IRRITATION, NAUSEA, HEADACHE. REPEATED AND/OR PROLONGED EXPOSURES MAY RESULT IN: ADVERSE SKIN EFFECTS (SUCH AS DEFATTING, RASH, OR IRRITATION); ADVERSE EYE EFFECTS (SUCH AS CONJUNCTIVITIS OR CORNEAL DAMAGE). REPEATED AND/OR PROLONGED EXPOSURE MAY CAUSE ALLERGIC REACTION/SENSITIZATION.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** ASTHMA, CHRONIC RESPIRATORY DISEASE (E.G. BRONCHITIS, EMPHYSEMA)

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### SECTION 4: FIRST AID MEASURES

**EYE CONTACT:** HOLD EYELIDS APART AND IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ADVICE.

**SKIN CONTACT:** REMOVE PRODUCT AND IMMEDIATELY FLUSH AFFECTED AREA WITH WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ADVICE.

**INHALATION:** IN CASE OF INHALATION OR SUSPECTED INHALATION, MOVE THE PATIENT AT ONCE TO FRESH AIR AND CALL A PHYSICIAN. KEEP PATIENT ABSOLUTELY QUIET AND START OXYGEN INHALATION THROUGH SUITABLE EQUIPMENT.

**INGESTION:** IF SWALLOWED, CALL A PHYSICIAN IMMEDIATELY. NOTE TO PHYSICIANS' REMOVE STOMACH CONTENTS BY GASTRIC SUCTION OR INDUCE VOMITING ONLY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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### SECTION 5: FIRE AND EXPLOSION DATA

**Flash Point:** (Closed cup) Deg F 340° Deg C 171°

**FLASH POINT METHOD(S):** Closed cup

**UPPER EXPLOSION LIMIT (UEL):** No Data

**LOWER EXPLOSION LIMIT (LEL):** No Data

**AUTOIGNITION TEMPERATURE:** No Data

**FIRE HAZARD CLASSIFICATION (OSHA/NFPA):** Class III B

**RECOMMENDED EXTINGUISHING MEDIA:** IGNITION WILL GIVE RISE TO A CLASS B FIRE. IN CASE OF FIRE USE: WATER SPRAY, CARBON DIOXIDE (CO<sub>2</sub>), DRY CHEMICAL, ALCOHOL FOAM.

**SPECIAL FIRE FIGHTING PROCEDURES:** USE WATER SPRAY TO REDUCE VAPORS. IF WATER POLLUTION OCCURS NOTIFY APPROPRIATE AUTHORITIES. WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS WITH INDEPENDENT AIR SUPPLY. KEEP CONTAINERS COOL WITH WATER SPRAY. AVOID SKIN CONTACT.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** MAY GENERATE TOXIC OR IRRITATING COMBUSTION PRODUCTS. SUDDEN REACTION AND FIRE MAY RESULT IF PRODUCT IS MIXED WITH AN OXIDIZING AGENT.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

**CONTAINMENT TECHNIQUES (REMOVAL OF IGNITION SOURCES, DIKING ETC):** VENTILATE THE SPACE INVOLVED. SHUT OFF OR REMOVE ALL IGNITION SOURCES. CONSTRUCT A DIKE TO PREVENT SPREADING.

**CLEAN-UP PROCEDURES:** IF RECOVERY IS NOT FEASIBLE/ ADMIX WITH DRY SOIL, SAND OR NON-REACTIVE ABSORBENT (SODIUM BISULFATE) AND PLACE IN A CONTAINER OR DUMPSTER PENDING DISPOSAL. PLACE IN METAL CONTAINERS FOR RECOVERY OR DISPOSAL. REMOVE FROM THE SPILL LOCATION. FLUSH AREA WITH WATER SPRAY. CLEAN-UP PERSONNEL MUST BE EQUIPPED WITH SELF CONTAINED BREATHING APPARATUS AND BUTYL RUBBER PROTECTIVE CLOTHING.

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## SECTION 7: HANDLING AND STORAGE

**HANDLING:** AVOID CONTACT WITH SKIN OR EYES. AVOID BREATHING VAPORS. HANDLE IN WELL VENTILATED WORK SPACE.

**STORAGE:** KEEP AWAY FROM OXIDIZERS, HEAT OR FLAMES. KEEP IN COOL, DRY, VENTILATED STORAGE AND IN CLOSED CONTAINERS.

**OTHER PRECAUTIONS:** EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE READILY ACCESSIBLE. ADHERE TO WORK PRACTICE RULES ESTABLISHED BY GOVERNMENT REGULATIONS (E.G. OSHA).

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EYE PROTECTION:** SPLASH-PROOF EYE GOGGLES. IN EMERGENCY SITUATIONS, USE EYE GOGGLES WITH A FULL FACE SHIELD.

**HAND PROTECTION:** WEAR SUITABLE GLOVES. NITRILE RUBBER GLOVES. IN EMERGENCY SITUATIONS, WEAR IMPERMEABLE GLOVES WITH CUFFS TO PREVENT SPREAD OF MATERIAL TO AREA ABOVE THE WRISTS.

**RESPIRATORY PROTECTION:** NOT REQUIRED UNDER NORMAL CONDITIONS. FOR EMERGENCY SITUATIONS USE SELF-CONTAINED BREATHING APPARATUS WITH PRESSURE DEMAND MODE.

**PROTECTIVE CLOTHING:** LONG SLEEVED CLOTHING.

**ENGINEERING CONTROLS:** IN CASE OF INSUFFICIENT VENTILATION WEAR SUITABLE RESPIRATORY EQUIPMENT (S38). MAINTAIN AIR CONCENTRATIONS IN WORK SPACES IN ACCORD WITH STANDARDS OUTLINED IN SECTIONS 2 AND 3.

**WORK AND HYGIENIC PRACTICES:** WASH AT THE END OF EACH WORKSHIFT AND BEFORE EATING, SMOKING OR USING THE TOILET. CHANGE WORK CLOTHING DAILY BEFORE LEAVING THE WORK PLACE. PROMPTLY REMOVE CLOTHING THAT BECOMES CONTAMINATED. EXAMINE PROTECTIVE GLOVES BEFORE USING. DISCARD IF FIND EVIDENCE OF HOLES OR CRACKS.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Mobile Liquid

**APPEARANCE:** Amber

**ODOR:** Amoniacal Irritating

**PH:**

**VAPOR PRESSURE (mm Hg at 2(70F)):** Alkaline

**VAPOR DENSITY (Air = 1):** <1 @ 25C (77F)

**BOILING POINT:** No Data

**MELTING POINT:** No Data  
**SOLUBILITY IN WATER:** No Data  
**SPECIFIC GRAVITY (Water = 1):** 0.97 @ 25C (77F)  
**VISCOSITY (CPS):** 11000 @ 25C (77F)  
**MOLECULAR WEIGHT:** Mixture

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#### SECTION 10: STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID (IF UNSTABLE):** Not applicable

**INCOMPATIBILITY (MATERIALS TO AVOID):** OXIDIZING AGENTS (I.E. PERCHLORATES, NITRATES ETC.) SOME CLEANING SOLUTIONS. A REACTION ACCOMPANIED BY LARGE HEAT RELEASE OCCURS WHEN THE PRODUCT IS MIXED WITH ACIDS.

**HAZARDOUS DECOMPOSITION PRODUCTS (FROM BURNING, HEATING, OR REACTION WITH OTHER MATERIALS):** CARBON MONOXIDE IN A FIRE. CARBON DIOXIDE IN A FIRE. NITROGEN OXIDES IN A FIRE. NITROGEN OXIDE CAN REACT WITH WATER VAPORS TO FORM CORROSIVE NITRIC ACID (TLV=2 PPM). COMBUSTION OF PRODUCT UNDER OXYGEN-STARVED CONDITIONS CAN BE EXPECTED TO PRODUCE NUMEROUS TOXIC PRODUCTS INCLUDING NITRILES, AMIDES. IRRITATING AND TOXIC FUMES AT ELEVATED TEMPERATURES.

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID (IF POLYMERIZATION MAY OCCUR):** Not applicable

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#### SECTION 11: TOXICOLOGIC PROPERTIES

**ACUTE TOXICITY EFFECTS DATA:**

**Oral LD50 (rat):** >2000 mg/kg (estimate)

**Dermal LD50(rabbit):** >2000 mg/kg (estimate)

**IRRITATION EFFECTS DATA:** None known

**OTHER ACUTE EFFECTS:** No Data

**CHRONIC/SUBCHRONIC DATA:** No delayed, sub chronic or chronic test data are known.

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#### SECTION 12: ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** Not Determined

**ENVIROMENTAL FATE:** Not Determined

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### SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** DILUTE WITH ORGANIC SOLVENT AND INCINERATE USING EFFLUENT GAS SCRUBBER. COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. DISPOSE OF IN A PERMITTED WASTE MANAGEMENT FACILITY IF INCINERATION OR LANDFILL IS NOT PRACTICABLE.

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### SECTION 14: TRANSPORTATION INFORMATION

**DOT NON-BULK SHIPPING NAME:** RESIN COMPOUND - Not DOT Regulated

**IMO SHIPPING DATA:** RESIN COMPOUND - Not IMO Regulated

**ICAO/IATA SHIPPING DATA:** RESIN COMPOUND - Not IATA Regulated

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### SECTION 15: REGULATORY INFORMATION

#### US FEDERAL REGULATIONS

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** ALL COMPONENTS ARE INCLUDED IN THE EPA TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY.

**OSHA HAZARD COMMUNICATION STANDARD (29CFR1910.1200) HAZARD CLASS(ES):**  
IRRITANT

**EPA SARA TITLE III SECTION 312 (<40CFR370) HAZARD CLASS IMMEDIATE HEALTH HAZARD P90-228**

**EPA SARA TITLE III SECTION 315 (40CFR572) TOXIC CHEMICALS ABOVE "DE MINIMIS" LEVEL:** NONE

#### STATE REGULATIONS

**PROPOSITION 65 SUBSTANCES COMPONENT(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR REPRODUCTIVE TOXICITY AND SUBJECT TO WARNING AND DISCHARGE REQUIREMENTS UNDER THE "SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986":** NONE

**NEW JERSEY TRADE SECRET REGISTRY NUMBER(S):** NONE

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### SECTION 16: INTERNATIONAL REGULATIONS

#### CANADA

**DSL:** Included on Inventory

**WHMIS HAZARD CLASSIFICATION:** Class D Division 2B

**WHMIS TRADE SECRET REGISTRY NUMBER(S):** None

**WHMIS HAZARDOUS INGREDIENTS:** Included in Section 2.

**WHMIS SYMBOL:** Stylized T

**EUROPEAN ECONOMIC COMMUNITY (EEC)**

**EINECS MATER INVENTORY:** Polymeric substance; monomers included on inventory.

**EEC PRIMARY RISK SYMBOL:** IRRITANT (XI)

**EEC RISK AND SAFETY PHRASES:** Irritating to eyes and skin (R36/38). May cause sensitization by skin contact (R43). Avoid contact with skin and eyes (S24/25). In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26). Wear suitable protective clothing, gloves and eye/face protection (S36/37/39).

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