

MSDS Preparation Date (dd/mm/yyyy): 12/02/2009

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product identifier : **Nawkaw NuBeader-W**

Product Code(s) : NUBW-66

Product Use : Water-based, penetrating water repellent treatment, for above grade vertical masonry of average porosity.

Chemical Family : Mixture.

Supplier's name and address:
Nawkaw Corporation
2283 Argentia Road - #23
Mississauga, ON, Canada
L5N 5Z2

Manufacturer's name and address:
Refer to Supplier

Information Telephone No. : (905) 542-7893

24 Hr. Emergency Tel # : (613) 996-6666 (CANUTEC)

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
			<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Acetic acid	64-19-7	5.00 - 10.00	10 ppm	15 ppm	10 ppm	N/Av
Tetraethyl silicate	78-10-4	10.00 - 30.00	10 ppm	N/Av	100 ppm	N/Av
Isooctyltrimethoxysilane	34396-03-7	30.00 - 60.00	N/Av	N/Av	N/Av	N/Av
AminoethylaminopropylMethoxysiloxane-Dimethylsiloxane copolymer	67923-07-3	10.00 - 30.00	N/Av	N/Av	N/Av	N/Av
Possible decomposition products in case of hydrolysis are:						
Methanol	67-56-1	Not known.	200 ppm (skin)	250 ppm (skin)	200 ppm	N/Av
Ethanol	64-17-5	Not known.	1000 ppm	N/Av	1000 ppm	N/Av

*Note: May slowly hydrolyze in the presence of water to: Methanol; Ethanol. Concentrations of these hydrolysis products will vary depending on the hydrolysis reaction. Methanol and ethanol are not intentionally added to this product. Upon completion of the curing process, these hydrolysis products are no longer released.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Colourless to yellow liquid. Solvent odour.
Warning! Flammable liquid and vapour Vapours may cause flash fire.
May be harmful if inhaled or swallowed. May cause respiratory irritation.
May cause headache, nausea, dizziness and other symptoms of central nervous system depression. Causes skin and eye irritation.
Contains material which can cause damage to the blood system, the liver and the kidneys.

Possible decomposition products in case of hydrolysis are: Methanol; Ethanol.
Upon completion of the curing process, these hydrolysis products are no longer released.
Inhalation of methanol vapours may cause substantial visual effects, including irritation, blurred vision, and blindness.
Swallowing methanol is life threatening.
Methanol has been shown to produce fetotoxicity in the embryo or fetus in laboratory animals.
Ethanol may cause mutations to both reproductive (germ) cells and non-reproductive (somatic) cells, based on animal data.

POTENTIAL HEALTH EFFECTS

Target organs : Eyes, skin, respiratory system, central nervous system, blood system, liver, brain and kidneys.

Routes of exposure : *Inhalation:* YES *Skin Absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES

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Signs and symptoms of short-term (acute) exposure

- Inhalation* : Inhalation of vapours may cause mild irritation to the mucous membrane. Symptoms may include nausea, vomiting, dizziness, drowsiness and other symptoms of central nervous system depression. Methanol forms on contact with water or humid air. Inhalation of methanol vapours may cause substantial visual effects, including irritation, blurred vision, and blindness.
- Skin* : May cause moderate skin irritation. May be absorbed and cause symptoms similar to those for inhalation.
- Eyes* : May cause severe eye irritation.
- Ingestion* : May cause irritation of mouth, throat, and stomach. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Methanol forms on contact with water or humid air. Swallowing methanol is life threatening. Affected person could experience a latent period of no symptoms, followed by blurred vision and possibly blindness.

Effects of long-term (chronic) exposure

- : Excessive overexposure could cause liver, kidney and blood system effects (anemia).

Conditions aggravated by overexposure

- : Pre-existing skin, eye and respiratory disorders.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects

- : See ECOLOGICAL INFORMATION, Section 12.

SECTION 4 - FIRST AID MEASURES

- Inhalation** : If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.
- Skin contact** : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If irritation persists, seek prompt medical attention.
- Eye contact** : Immediately flush eyes with running water for at least 15 minutes. Get medical attention.
- Ingestion** : Do not induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

- : Flammable liquid and vapour Vapours are heavier than air and collect in confined and low-lying areas. Vapour can travel considerable distance and flashback to a source of ignition. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. May slowly hydrolyze in the presence of water to: Methanol; Ethanol.

Flammability classification (OSHA 29 CFR 1910.1200)

- : Flammable Liquid Class 1C.
- Flash point** : 25°C (77°F)
- Flash point Method** : N/Av **Auto-ignition temperature** : 310°C (590°F)
- Lower flammable limit (% by vol.)** : N/Av **Upper flammable limit (% by vol.)** : N/Av
- Oxidizing properties** : None known.
- Flame Projection Length** : N/Av **Flashback observed** : N/Av

Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact. Vapours in the flammable range may be ignited by a static discharge of sufficient energy.

Suitable extinguishing media : Carbon dioxide (CO₂); Alcohol-resistant foam; Dry chemical. Do not use water. May react with water.

Special fire-fighting procedures/equipment

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

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Hazardous combustion products

: Carbon oxides; formaldehyde; other unidentified organic compounds.

NFPA Rating

0 - Minimal	1 - Slight	2 - Moderate	3 - Serious	4 - Severe
Health: 2		Flammability: 3	Instability: 1	Special Hazards: None

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions

: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear appropriate protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Spill response/cleanup

: Remove all sources of ignition. Ventilate area of release. Stop spill or leak at source if safely possible. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials

: None known.

Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).
US CERCLA Reportable quantity (RQ): acetic acid (5000 lbs / 2270 kg)

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures

: Wear suitable protective equipment during handling. Use with adequate ventilation. See Section 8 for additional personal protection advice when handling this product. Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. Protect from moisture. Avoid contact with incompatible materials. Keep away from heat, sparks, and open flames. Use caution when opening cap. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

Storage requirements

: Store in a cool, dry, well-ventilated area. Store away from areas of excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials

: Strong oxidizing agents; Alkalies; Water; other unidentified organic compounds.

Special packaging materials

: Not available.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering measures

: Use with adequate ventilation. Use sufficient mechanical ventilation to maintain exposures below the TLV.

Respiratory protection

: If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Seek advice from respiratory protection specialists.

Skin protection

: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.

Eye / face protection

: Chemical goggles are recommended when there is a potential for splashing. A full face shield may also be necessary.

Other protective equipment

: Emergency showers and eyewash facilities should be nearby. Wear chemically protective gloves (impervious), boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.

General hygiene considerations

: Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. When using do not eat or drink. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Permissible exposure levels

: For individual ingredient exposure levels, see Section 2.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.	Appearance	: Colourless to yellow liquid.
Odour	: Solvent odour.	Odour threshold	: N/Av
pH	: 5 - 6 @ 25°C (77°F) (500 g/L water)		
Boiling point	: 65°C (149°F)	Specific gravity	: 0.95 - 0.97 @ 25°C (77°F)
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: Completely miscible. May react with water.
Vapour density (Air = 1)	: > 1	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: N/Av	Volatiles (% by weight)	: N/Av

SECTION 10 - REACTIVITY AND STABILITY DATA

Stability and reactivity	: Stable under the recommended storage and handling conditions prescribed. May slowly hydrolyze in the presence of water to: Methanol; Ethanol.
Hazardous polymerization	: Will not occur.
Conditions to avoid	: Avoid heat and open flame. Do not use in areas without adequate ventilation. Avoid moisture.
Materials To Avoid And Incompatibility	: Incompatible materials (see Section 7).
Hazardous decomposition products	: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC₅₀(4hr) inh, rat	LD₅₀	
		oral	dermal
Acetic acid	2810 ppm (mouse)	3530 mg/kg (rat)	1060 mg/kg (rabbit)
Tetraethyl silicate	N/Av	6270 mg/kg (rat)	6300 µL/kg (rabbit)
Isooctyltrimethoxysilane	N/Av	N/Av	N/Av
AminoethylaminopropylMethoxysiloxane-Dimethylsiloxane copolymer	N/Av	N/Av	N/Av
Possible decomposition products in case of hydrolysis are:			
Methanol	64,000 ppm	5628 mg/kg (rat)	15,800 mg/kg (rabbit)
Ethanol	21,000 ppm (mouse)	7060 mg/kg (rat)	N/Av

Carcinogenic status	: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects	: Not expected to have other reproductive effects.
Teratogenicity	: May slowly hydrolyze in the presence of water to: Methanol; Ethanol. Methanol has been shown to produce fetotoxicity in the embryo or fetus in laboratory animals. Methanol and ethanol are not intentionally added to this product.
Mutagenicity	: May slowly hydrolyze in the presence of water to: Methanol; Ethanol. Ethanol may cause mutations to both reproductive (germ) cells and non-reproductive (somatic) cells, based on animal data. Methanol and ethanol are not intentionally added to this product.
Epidemiology	: Not available.

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- Sensitization to material** : Not expected to be a skin or respiratory sensitizer.
- Synergistic materials** : Not available.
- Irritancy** : Moderate skin irritant. Severe eye irritant.
- other important hazards** : CNS depression may result from exposure.

SECTION 12 - ECOLOGICAL INFORMATION

- Environmental effects** : The ecological characteristics of this product have not been fully investigated.

The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Important environmental characteristics

- : Not available.
- Ecotoxicological** : No data is available on the product itself.



SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle waste according to recommendations in Section 7.
Empty containers retain residue (liquid and/or vapour) and can be dangerous.
- Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations.
Contact your local, state, provincial or federal environmental agency for specific rules.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261.

It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 - TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	UN1993	Flammable liquids, n.o.s. (Contains: Isooctyltrimethoxysilane; Tetraethyl silicate)	3	III	
49CFR/DOT Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. US CERCLA Reportable quantity (RQ): acetic acid (5000 lbs / 2270 kg); Methanol (5000 lbs / 2270 kg).				
TDG	UN1993	FLAMMABLE LIQUID, N.O.S. (Isooctyltrimethoxysilane; Tetraethyl silicate)	3	III	
TDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Under the TDGR, refer to Section 1.17 for additional exemption information, if shipping under this exemption.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

- OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).
- TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.
- CERCLA Reportable Quantity (RQ) (40 CFR 117.302): acetic acid (5000 lbs / 2270 kg).

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SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

International Information:

Canadian WHMIS Classification:

Class B2 (Flammable Liquids);

Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

SECTION 16 - OTHER INFORMATION

HMIS Rating : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
*Health: *2 Flammability: 3 Reactivity: 1*

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstract Services
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 CFR: Code of Federal Regulations
 CNS: Central Nervous System
 DOT: Department of Transportation
 EPA: Environmental Protection Agency
 NFPA: National Fire Protection Association
 HMIS: Hazardous Materials Identification System
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 Inh: Inhalation
 LC: Lethal Concentration
 LD: Lethal Dose
 N/Ap: Not Applicable
 N/Av: Not Available
 NIOSH: National Institute of Occupational Safety and Health
 NTP: National Toxicology Program
 OSHA: Occupational Safety and Health Administration
 PEL: Permissible exposure limit
 RCRA: Resource Conservation and Recovery Act
 RTECS: Registry of Toxic Effects of Chemical Substances
 SARA: Superfund Amendments and Reauthorization Act
 STEL: Short Term Exposure Limit
 TLV: Threshold Limit Values
 TWA: Time Weighted Average
 WHMIS: Workplace Hazardous Materials Identification System

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- References** :
1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2008.
 2. International Agency for Research on Cancer Monographs, searched 2009.
 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2009 (Chempendium, HSDB and RTECs).
 4. Material Safety Data Sheet from manufacturer.
 5. California Proposition 65 List - December 19, 2008 version.
 6. US EPA Title III List of Lists - October 2006 version.

<p>Prepared for: Nawkaw Corporation 2283 Argentia Road - #23 Mississauga, ON, Canada, L5N 5Z2 Telephone: (905) 542-7893 Please direct all enquiries to Nawkaw Corporation.</p>	 <p>Changing the color of masonry</p> <p>Official supplier of Reckli formliners </p>
<p>Prepared by: ICC The Compliance Center Inc. Canada: 1-888-977-4834 USA: 1-888-442-9628 http://www.thecompliancecenter.com</p>	 <p>HAZARDOUS MATERIALS REGULATIONS SPECIALISTS</p>

DISCLAIMER OF LIABILITY

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