

NawKote-WR

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations According To The Hazardous Products Regulation (February 11, 2015).
Revision Date: 04/11/2018 Date of Issue: 04/11/2018 Version: 1.1

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Form: Mixture

Product Name: NawKote-WR

1.2. Intended Use of the Product

Water repellent for concrete and masonry surfaces

1.3. Name, Address, and Telephone of the Responsible Party

Company

USA: Nawkaw Corporation
380 Commerce Blvd
Athens, GA 30606 USA
706.355.3217

CANADA: Nawkaw Corporation
2283 Argentia Road #23
Mississauga, ON, Canada L5N 5Z2
905.542.7893

www.nawkaw.com

1.4. Emergency Telephone Number

Emergency Number : CHEMTREC +1 703-741-5970 / 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Serious eye damage/eye irritation – Category 1

Flammable liquids – Category 3

2.2. Label Elements

GHS-US/CA Labeling

Pictograms:



Signal Word: Danger

GHS Classification	Hazard Statements
H226	Flammable liquid and vapour
H318	Causes serious eye damage

GHS Classification	Precautionary Statements
P280	Wear protective gloves/protective clothing/eye protection
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.No smoking.
P243	Take precautionary measures against static discharge.
P310	Immediately call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P370+P378	In case of fire: Use water mist, carbon dioxide or alcohol resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to waste disposal

The following percentage of mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 24.2

2.3. Other Hazards

No data available.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization

Alcylsilicone resin with alkoxy groups.

3.2. Mixture

Name	Product Identifier	% *
Amino functional polydimethyl siloxane	(CAS-No.) 67923-07-3	20-25
Ethyl silicate	(CAS-No.) 78-10-4	10-15
Acetic acid	(CAS-No.) 64-19-7	5-10

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non- carcinogenic HAPS or they are inextricably bound in the product.

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person Get medical attention if irritation occurs or if breathing becomes difficult. Remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.

Inhalation: If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

Skin Contact: Remove contaminated clothing. For skin contact, immediately wipe away excess material. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water. Obtain medical attention if irritation develops or persists.

Eye Contact: If contact with eyes, immediately flush eyes with plenty of water for at least 15 min. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Continue to bathe eyes during transport to medical practitioner.

Ingestion: If conscious, give several small portions of water to drink. Get medical attention immediately. Never give anything by mouth to an unconscious person.

4.2. Advice for the physician

Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Flammable properties:

Property:	Value:
Flash point	25 °C (77 °F)
Boiling point / boiling range	not determined
Lower explosion limit (LEL)	not determined
Upper explosion limit (UEL)	not determined
Ignition temperature	310 °C (590 °F)
NFPA Hazard Class (comb./flam.liquid)	IC

5.2 Fire and explosion hazards:

Warning! Flammable liquid and vapor. Reaction with water may cause a decrease of the flash point due to formation of volatile organic compound(s) (VOC). As a result of hydrolysis flammable vapors may accumulate in the container head space. Explosion limits for hydrolysis product: 5.5-44% v/v (methanol). Hazardous combustion products: nitrous oxides.

5.3 Recommended extinguishing media:

carbon dioxide, dry chemical, water-mist or alcohol-resistant foam.

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5.4 Unsuitable extinguishing media:

sharp water jet, water-spray.

5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Hazardous combustion products: nitrous gases.

5.6 Fire fighting procedures:

Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Cool endangered containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray). Ensure adequate ventilation.

Risk of slipping due to leakage/spillage of product. Keep unprotected persons away.

HAZWOPER PPE Level: C

6.2. Containment

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Prevent entry to sewers and public waters. Avoid release to the environment.

Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

6.3. Methods and Materials for Cleaning Up

Do not flush away with water. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner.

6.4. Further information

Eliminate all sources of ignition.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Avoid formation of aerosols. Ensure adequate ventilation. Avoid contact with acids. Spilled substance increases risk of slipping. Use appropriate personal protective equipment (PPE).

Precautions against fire and explosion: Product can separate methanol. Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool and well-ventilated place. Containers which are opened should be properly resealed and kept upright to prevent leakage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Engineering controls

Ventilation: General ventilation sufficient to provide 1 CFM per square foot of floor area or 6 room air exchanges per hour is recommended.

Local exhaust: Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne contaminants at the point of use.

8.2. Associate substances with specific control parameters such as limit values

Maximum airborne concentrations at the workplace:

CAS No.	Material	Type	mg/m3	ppm
67-56-1	Methanol	OSHA PEL	260.0	200.0
78-10-4	Tetraethyl silicate	OSHA PEL	850.0	100.0
64-19-7	Acetic acid	OSHA PEL	25.0	10.0
64-17-5	Ethanol	OSHA PEL	1,900.0	1,000.0

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67-56-1	Methanol	ACGIH TWA	200.0
78-10-4	Tetraethyl silicate	ACGIH TWA	10.0
64-19-7	Acetic acid	ACGIH TWA	10.0

Methanol (CAS-no. 67-56-1): STEL is 250 ppm, skin notation (ACGIH); STEL is 250 ppm, skin notation (NIOSH).

Acetic acid (CAS-no. 64-19-7): STEL is 15 ppm (ACGIH).

Ethanol (CAS no. 64-17-5): STEL is 1000 ppm; carcinogenicity: A3 (ACGIH).

8.3. Personal protection equipment (PPE)

Respiratory protection: Respiratory protection is not normally required. If spraying or other operations which generate an aerosol mist are conducted, respiratory protection for exposed personnel is recommended. A NIOSH approved air purifying respirator equipped with universal multi-contaminant, multi-gas/vapor cartridges and at least P-99 solid/aerosol particulate filters is recommended if overexposure to dusts, mists, or vapors could occur. If eye-irritating dusts or vapors are present, a full-face respirator should be worn.

Hand protection: butyl rubber protective gloves.

Eye protection: tight fitting chemical safety goggles. Where there is risk of splashing: protective shield.

Other protective clothing or equipment: Additional skin protection, such as SARANEX coated Tyvek apron, over-sleeves, lab coat, coveralls, or protective suit should be worn if splashing could occur. Provide eye bath and safety shower.

8.4. General hygiene and protection measures

Do not eat, drink or smoke when handling. Do not breathe dust/vapor/mist/gas/aerosol. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state / form	liquid
Color	yellowish
Odor	slight
Melting point / melting range	not determined
Boiling point / boiling range	not determined
Flash point	25 °C (77 °F)
Ignition temperature	310 °C (590 °F)
Lower explosion limit (LEL)	not determined
Upper explosion limit (UEL)	not determined
Vapour pressure	not determined
Density	0.95 - 0.97 g/cm ³ at 25 °C (77 °F)
Water solubility / miscibility	completely miscible
pH-Value	5 - 6 at 25 °C (77 °F) (500 g/l H ₂ O)
Viscosity (dynamic)	1 - 10 mPa.s at 25 °C (77 °F)
VOC	318 g/l

Product displays basic reaction with water.

SECTION 10: STABILITY AND REACTIVITY

10.1. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.2. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.3. Conditions to Avoid: Moisture.

10.4. Incompatible Materials: Reacts with: water, basic substances and acids. Reaction causes the formation of: methanol.

10.5. Hazardous Decomposition Products: Under the effect of humidity, water and protic agents: methanol, ethanol. The following applies for the silicone content of the substance: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302°F) through oxidation.

10.6. Further information: Hazardous polymerization cannot occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects – Product

General information: Data derived for the product as a whole are of higher priority than data for single ingredients.

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Acute Toxicity

For similar products no indications for a specific hazard due to aerosol inhalation were identified in animal tests. However, inhalation of respirable aerosol should be avoided.

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD50: > 2000 mg/kg	rat	Conclusion by analogy OECD 401
dermal	LD50: > 2000 mg/kg	rat	Conclusion by analogy OECD 402
by inhalation (spray)	LC50: > 0.72 mg/l; 4 h At the technically highest possible concentration no mortality in animal test. Observed effects: dyspnoea, ataxia.	rat	Conclusion by analogy OECD 403

Data related to ingredients:

Ethyl silicate:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD ₅₀ : > 2500 mg/kg	rat	test report OECD 423
by inhalation (spray)	LC ₅₀ : 10 mg/l; 4 h	rat (male)	test report OECD 403
by inhalation (spray)	LC ₅₀ : > 16.8 mg/l; 4 h	rat (female)	test report OECD 403

Skin corrosion/irritation

Product details:

Result/Effect	Species/Test system	Source
not irritating	rabbit	Conclusion by analogy OECD 404

Data related to ingredients:

Ethyl silicate:

Result/Effect	Species/Test system	Source
not irritating	rabbit	test report OECD 404

Serious eye damage/irritation

Product details:

Result/Effect	Species/Test system	Source
serious damages to eyes 10% dilution in water: irritating.	rabbit	Conclusion by analogy OECD 405

Data related to ingredients:

Ethyl silicate:

Based on experience with humans, irritation is to be expected after contact with the eyes.

Result/Effect	Species/Test system	Source
irritating	Human experience	literature
not irritating	rabbit	test report OECD 405

Respiratory or skin sensitization

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
dermal	not sensitizing	guinea-pig; Magnusson-Kligman	Conclusion by analogy OECD 406

Data related to ingredients:

Ethyl silicate:

Route of exposure	Result/Effect	Species/Test system	Source
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dermal	not sensitizing	guinea-pig; Bühler	test report OECD 406
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Germ Cell Mutagenicity

Assessment: no toxicological test data is available for the whole product.

Data related to ingredients:

Ethyl silicate:

Result/Effect	Species/Test system	Source
negative	mutation assay (in vitro) bacterial cells	test report OECD 471
negative	mutation assay (in vitro) mammalian cells	test report OECD 476
negative	chromosome aberration assay (in vitro) mammalian cells	test report OECD 473

Carcinogenicity

Assessment: no toxicological test data is available for the whole product.

Reproductive Toxicity

Assessment: no toxicological test data is available for the whole product.

Data related to ingredients:

Ethyl silicate: Animal tests have shown no indications of possibility of damage to embryo and impairment of fertility.

Result/Effect (Examinations of fertility disruption)	Species/Test system	Source
NOAEL: >= 100 mg/kg NOAEL = NOAEL (fertility)	screening test rat (Sprague Dawley, both sexes), oral (gavage), 28 d	test report OECD 422

Result/Effect (Examinations of developmental toxicity and teratogenicity)	Species/Test system	Source
NOAEL (developmental): >= 100 mg/kg NOAEL (maternal): 50 mg/kg	(Sprague Dawley, both sexes), oral (gavage), 28 d	test report OECD 422

Specific Target Organ Toxicity (Single Exposure)

Assessment: no toxicological test data is available for the whole product.

Data related to ingredients:

Ethyl silicate:

Route of exposure	Result/Effect	Source
by inhalation	Target organs: respiratory tract Irritating to respiratory system.	test report

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: no toxicological test data is available for the whole product.

Data related to ingredients:

Ethyl silicate:

Result/Effect	Species/Test system	Source
NOAEL: 10 mg/kg LOAEL: 50 mg/kg Target organs: kidneys	Subacute study rat (male) oral (gavage) 28 d; 7 d/w	test report OECD 422
NOAEL: 50 mg/kg LOAEL: 100 mg/kg Target organs: kidneys	Subacute study rat (female) oral (gavage) 28 d	test report OECD 422
LOAEC: 0.426 mg/l Target organs: kidneys Symptoms/Effect: Local effect: irritation of mucous membranes.	Subacute study mouse (male) by inhalation (vapour) 28 d; 5 d/w; 6 hours/day	test report OECD 412

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Aspiration Hazard

Assessment: no toxicological test data is available for the whole product.

Further toxicological information

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other information: Hydrolysis product / impurity: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure. Hydrolysis product / impurity: According to literature, ethanol (67-17-5) irritates the mucous membranes, slightly irritates the skin, degreases the skin, is narcotic and may cause liver damage. Product causes shortness of breath and loss of coordination if inhaled.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Assessment: No expected damaging effects to aquatic organisms. According to current knowledge adverse effects on water purification plants are not expected.

Data related to ingredients: Data derived for the product as a whole are of higher priority than data for single ingredients

Ethyl silicate:

EC50: > 75 mg/l (measured)	dynamic; Daphnia magna (48 h)	test report OECD 202
EC50 (growth rate): > 100 mg/l (nominal)	static; Pseudokirchneriella subcapitata (72 h)	test report OECD 201
EC50 (respiratory inhibition): > 100 mg/l	static; sludge (3 h)	test report OECD 209

12.2. Persistence and Degradability

Assessment: Contact with water liberates methanol, ethanol and silanol- and/or siloxanol-compounds. The product of hydrolysis (methanol) is readily biodegradable. The hydrolysis product (Ethanol) is readily biologically degradable.

Data related to ingredients:

Ethyl silicate: Contact with water liberates ethanol and silicic acid.

Biodegradation:

Result	Test system/Method	Source
98 % / 28 d readily biodegradable	DOC - decrease	test report OECD 301A

Hydrolysis:

Result	Test system	Source
Half-life: 4.4 h	pH 7; 25 °C	test report OECD 111

12.3. Bioaccumulative Potential

Assessment: Bioaccumulation is not expected to occur.

12.4. Mobility in Soil

Assessment: No data known.

12.5. Other Adverse Effects

None known.

Avoid release to the environment.

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1 RCRA Waste Classification:

D001 (Ignitable)

This classification applies only to the material as it was originally produced.

13.2 Product disposal

Recommendation:

Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

13.3 Packaging disposal

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 US DOT & CANADA TDG SURFACE

Valuation : Dangerous Goods
Proper Shipping Name : Flammable liquid, n.o.s.
Technical name : (contains Trimethoxy(2,4,4-trimethylpentyl)silane and Tetraethyl silicate)
Class : 3
UN no. : 1993
Packaging Group : III
Label : **TL:flammable liquid/3
NAERG Guide : 128

14.2 Transport by sea IMDG-Code

Valuation : Dangerous Goods
Class : 3
Packaging Group : III
UN no. : 1993
Proper Shipping Name : Flammable liquid, n.o.s.
Technical name : (contains Trimethoxy(2,4,4-trimethylpentyl)silane and Tetraethyl silicate)
Marine Pollutant : no

14.3 Air transport ICAO-TI/IATA-DGR

Valuation : Dangerous Goods
Class : 3
UN no. : 1993
Proper Shipping Name : Flammable liquid, n.o.s.
Technical name : (contains Trimethoxy(2,4,4-trimethylpentyl)silane and Tetraethyl silicate)
Packaging Group : III

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

TSCA inventory status and TSCA information:

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

TSCA 12(b) Export Notification:

This material does not contain any TSCA 12(b) regulated chemicals.

CERCLA Regulated Chemicals:

CAS No.	Chemical	RQ	Upper limit wt. %
64-19-7	Acetic acid	5,000 lbs	6.2973

SARA 302 EHS Chemicals:

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:

Fire hazard. Immediate (acute) health hazard.

SARA 313 Chemicals:

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This material does not contain any SARA 313 chemicals above de minimus levels.

HAPS (Hazardous Air Pollutants):

CAS No.	Chemical	Upper limit wt. %
67-56-1	Methanol	0.3128

15.2. US State Regulations

California Proposition 65 Carcinogens:

This material does not contain any chemicals known to the State of California to cause cancer.

California Proposition 65 Reproductive Toxins:

67-56-1 Methanol

Massachusetts Substance List:

64-19-7 Acetic acid

78-10-4 Ethyl silicate

New Jersey Right-to-Know Hazardous Substance List:

64-19-7 Acetic acid

78-10-4 Ethyl silicate

Pennsylvania Right-to-Know Hazardous Substance List:

64-19-7 Acetic acid

78-10-4 Ethyl silicate

15.3. Canadian Regulations

This product has been classified in accordance with the Hazard criteria of the CPR and the SDS contains all the information required by the CPR.

WHMIS Hazard Classes:

B2, D2B

DSL Status:

This material or its components are listed on the Canadian Domestic Substances List.

Non-DSL Chemicals:

This material does not contain any non-DSL chemicals.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 04/11/2018

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.