



SDS/User Guide





Vital Coat
X-440 RTU Concrete Masonry Sealer
Technical Data Sheet (TDS)

Description

Vital Coat X-440 sealer is a high performance, high solids water based low VOC Silane Siloxane penetrating sealer and water repellent for concrete and masonry surfaces. It penetrates deep into the surface and chemically reacts with the concrete to create a protective hydrophobic water repellent barrier yielding a longer lasting protection against water intrusion, salts, staining, freeze/thaw, mold and mildew, efflorescence, dusting, scaling and spalling. X-440 is a non-yellowing, UV resistant sealer that does not leave behind a visible surface film, and will not change the look or color of the surface. It will preserve the natural characteristics of the treated substrates.

Primary Applications

X-440 Penetrating Sealer can be applied to residential and commercial, interior or exterior, horizontal or vertical structures. It protects concrete and masonry surfaces including architectural concrete, concrete block, split-face block, pavers, stucco, porous and dense brick, clay tile, etc. It is also an excellent choice for high-traffic areas because it does not create a slippery film on top of the surface. X-440 helps protect your concrete and masonry surfaces to resist common issues such as staining, cracking, spalling, efflorescence, and other damages caused by intrusion of water.

Features/Benefits

- *Does not change appearance of Substrate
- *Reduces deterioration from spalling due to salt exposure
- *Excellent resistance to mold and mildew
- *Reduces chloride penetration
- *Reduces dirt pick-up
- *No slippery film is formed
- *Provides superior water repellency while allowing substrate to breath
- *Works on new or existing structures
- *Provides a hydrophobic barrier to prevent water penetration
- * Freeze/Thaw/de-icing salt resistant
- *Efflorescence and strong alkali resistance
- *UV resistant

Technical Information

Property	Result
Solids	5% 10%
Appearance	Milky White Emulsion - Dries Flat/Clear
Odor	Mild
pH	9-Jun
Application Temperature	50°F - 90°F
Flashpoint	999°F
VOC Content +/-2%	<30g/L
Dry to Touch	2 hours
Dry for Traffic	8 to 10 hours

Packaging

It is available in 1 Gallon (3.79 Liter) jugs, 5 Gallon (18.93 Liter) Pails, 55 Gallon (208.20 Liter) Drums, and 275 Gallon (1041 Liters) Totes. Delivery Restrictions May Apply. See shipping terms in terms and conditions. Other quantities available upon request.

Coverage

Coverage rate is approximately 150 - 250 ft.² /gal. (1.2 - 6.1 m² /L). Coverage is approximate and may vary depending on surface finish/texture, concrete condition, climatic conditions, etc. Always apply to a test area first to determine actual coverage rate before full-scale application.

Shelf Life

This product has a shelf life of up to two years in its original, sealed, unopened container. If product appears to be hardened or separated contact Vital Coat before use.

Directions for Use

General Instructions: Before using this product read the Technical Data Sheet (TDS) and the Safety Data Sheet (SDS) found at www.vitalcoat.com. Apply in temperatures between 40°F - 90°F (4°C – 32°C). Always tighten lid thoroughly after use. Always perform a test application for proper penetration on each type of surface prior to full-scale application to determine suitability and final appearance. Test using the recommended application instructions. Let area dry thoroughly before inspection.

Surface Preparation: Surface preparation is important. Surfaces must be structurally sound, clean and free from as much dirt, stains, efflorescence, oil, and other contamination as possible. Protect people, vehicles, property, plants, and all surfaces from exposure to the product, from splash, residue, and wind drift before application. Do not mix or add any other chemical to this product. Insure that surface is thoroughly dried before application. Excessive moisture inhibits sealer penetration. A small test must be conducted prior to application. Based upon this test, the purchaser shall determine for themselves the suitability of this product for the intended use. Allow 14 - 28 days for new concrete or masonry to cure before applying X-440.

Application: X-440 can be sprayed, brushed or rolled. For best results, using a quality sprayer capable of producing a steady pressure under 40 psi. A .1 - .2 GPM tip is recommended. Completely saturate the surface ensuring that the entire surface is saturated. Do not let the product puddle on the surface or dry on the surface. Back roll with a brush or a medium nap paint roller. DO NOT OVERAPPLY. Let dry for 10 to 15 minutes. If second coat is needed, apply wet-on-wet. On highly permeable surfaces, additional coats may be necessary. On vertical applications, apply from the bottom up. Protect surfaces from rainfall for six hours following treatment. Many surfaces need several days to develop optimum water repellency. Immediately clean tools, equipment, and overspray with soap and warm water.

Drying: Do not touch treated surface during dry time. Do not add water or allow water to come in contact while curing. Protect surface from debris coming in contact with surface while drying. Allow to dry completely for approximately 24 hours before allowing heavy traffic on the treated surface.

Clean-up

Immediately after use, Clean tools and equipment with soap and water. Dispose of containers in accordance with local and federal regulations.

Precautions/Limitations

Before handling, consult the Safety Data Sheet and Container Labels for physical and health hazard information.

Do not allow products to freeze in storage or during application.

It is not recommended to apply Vital Coat Sealers over other types of sealers.

Minimum surface and ambient temperature of 45°F (7°C) and rising at the time of application.

For optimum results, condition material to 65°F to 85°F (18°C to 29°C) at least 24 hours prior to use.

Do not alter or add any other chemical to the product. Do not dilute unless specified in the Technical Data Sheets.

X-440 will not hide existing surface stains. Temporary darkening of some substrates may occur

Not intended for use on surfaces that will be constantly be submerged in water.

Mix well before using.

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Vital Coat

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SAFETY DATA SHEET

Issuing Date 6-29-2020

Revision Date

Revision Number

NGHS / English



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1. IDENTIFICATION

Product identifier

Product Name Vital Coat X-440, X-440 C Penetrating Sealer

Other means of identification

Product Code(s) T1205

Recommended use of the chemical and restrictions on use

Recommended Use Concrete and Masonry Water Repellant

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Identification NxTech Holdings LLC

Address 2172 Arendell Way
Tallahassee
FL
32308
US

Telephone Phone:1-844-284-2858

E-mail info@vitalcoat.com

Emergency telephone number

Emergency Phone Number INFOTRACK: 800-535-5053 ID 72826

2. HAZARDS IDENTIFICATION

Classification

Not classified.



The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Milky White

Physical state Liquid

Odor Acetic

GHS Label elements, including precautionary statements

Hazard statements

Not classified.

GHS Ratings:

There are no GHS ratings that apply to this product

GHS Hazards

There are no GHS ratings that apply to this product

GhS Precautions

There are no GHS ratings that apply to this product

Other information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS Number	% Range
Triethoxy(2,4,4-trimethylpentyl)silane	35435-21-3	2% - 10%
Silsesquioxanes, methyl, ethoxy terminated	104780-78-1	.5% - 1.5%
Poly(oxy-1,2-ethanediyl), .alpha.-isotridecyl-.omega.-hydroxy	9043-30-5	.1% - .5%

Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation

Move affected person to fresh air. If breathing has stopped, administer CPR. If the person vomits, clean the airway and turn their head to the side to prevent choking. If the person is unconscious but breathing, place them stably

on their left side in the recovery position. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Remove any contaminated clothing using appropriate gloves. Rinse skin thoroughly for 15 minutes in a shower or with a hose. Seek immediate medical attention.

Ingestion Rinse mouth with water to remove any residual chemical. If the person vomits, clean their airway and turn their head to the side to prevent choking. DO NOT induce vomiting and DO NOT give them anything to drink unless directed to do so by a physician. If the person is unconscious but breathing, place them stably on their left side in recovery position. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. No Specific antidote available

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam, CO2, Dry Chemical

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Prevent firefighting run-off from entering drains or sewers.

Hazardous Combustion Products Fires involving this product may release oxides of carbon and nitrogen, reactive hydrocarbons, and irritating vapors.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Methods and material for containment and cleaning up



Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spills, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers. If a large spill occurs notify the appropriate authorities. In case of road spill or accident contact INFOTRAC (1-800-535-5053).

CAUTION: If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will also be regulated. Do not empty into drains. All disposal must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Open containers carefully and in a well-ventilated area, and use appropriate respiratory protection. Wash hands thoroughly after handling. Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers contain product residue which may exhibit hazardous properties therefore, do not pressurize, cut, glaze, weld or use for any other purpose. Return drums to reclamation center for proper cleaning and reuse.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Store in a cool, dry, well ventilated area. Keep containers tightly closed and store away from heat, sparks, open flame or oxidizing materials. Extended storage at excessive temperatures may produce odorous and toxic fumes from product decomposition..
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Use safety eyewear with splash guards or side shields. Use additional eye protection such as chemical safety goggles when the possibility for eye contact from splashing, spraying liquid, or airborne material exists.
Skin and body protection	Avoid Contact with product. Wear appropriate protective gloves and clothing to prevent skin exposure. Gloves must be inspected prior to use. Use proper glove removal technique



(without touching gloves outer surface) to avoid skin contact with this product.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

General - When using do not eat or drink. Wash hands with soap and water before breaks and at the end of each workday.

Contaminated Equipment - Avoid contact with contaminated clothing and protective gear/equipment. Wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Milky White. Dries Clear
Odor	Slight
Color	Dries clear
Odor Threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	5.5		
Melting / freezing point	No data available	None known	
Boiling point / boiling range	190°C	None known	
Flash Point	999°C / 999°F		
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Relative density	.949		
Water Solubility	No data available		
Solubility(ies)	No data available	None known	
Partition coefficient: n-octanol/water¹			
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	

Other Information

Explosive properties	No information available
Oxidizing properties	No information available
Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	0%
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available.



Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to avoid	None known based on information supplied.
Incompatible materials	Strong acids, strong bases, oxidizing agents.
Hazardous Decomposition Products	Carbon Dioxide (CO ₂), Carbon Monoxide (CO), Oxides of Nitrogen (NO _x), dense black smoke.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Note - Toxicological studies have not been performed on this mixture. The toxicological data listed is compiled using data from the components of the mixture. Refer to Section 2 of this SDS for GHS classification of acute and chronic effects of exposure.

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Numerical measures of toxicity

Acute Toxicity

Unknown acute toxicity	20 % of the mixture consists of ingredient(s) of unknown toxicity
	20 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
	20 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
	20 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
	20 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
	20 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.

Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and Degradability	No information available.
Bioaccumulation	There is no data for this product.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Do not discharge product into sewer system. Dispose of in a licensed facility. Waste management should be in full compliance with federal, state, and local laws. The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate.
Contaminated packaging	Do not reuse empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	NOT REGULATED
Proper Shipping Name	NON-REGULATED
Hazard Class	N/A
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated



<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
Proper Shipping Name	NON REGULATED
Hazard Class	N/A
<u>IMDG/IMO</u>	Not regulated
Hazard Class	N/A
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	All substances except those listed below appear in the Toxic Substances Control Act, Chemical Substance Inventory: 104780-78-1 Silsesquioxanes, methyl, ethoxy terminated .5 – 1.5%.
DSL/NDL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AICS	- Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

This product does not contain a chemical or chemicals which are subject to the reporting requirements of the Act, and Title 40, of the Code of Federal Regulations, part 372:

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate



classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

WARNING! This product contains the following substance(s) which are listed by the State of California as carcinogenic, or a reproductive toxin:

67-56-1 Methyl alcohol Carcinogen

75-21-8 Ethylene oxide Carcinogen

123-91-1 1,4-Dioxane Carcinogen

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 0	Flammability 0	Physical hazards 0	Personal Protection X

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Revision Note

Disclaimer

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End of Safety Data Sheet