

NEVADA COATINGS SYSTEM

JANUARY 01, 2008

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NCS Pool Deck - Granite Deck Finish



POINTS OF INTEREST:

- ◆ Cool Under Foot...
- ◆ Installs Quickly...
- ◆ Slip Resistant...
- ◆ Multiple Colors...

INSTALLATION USES:

- ▶ Pool Decks
- ▶ Spa Deck
- ▶ Court Yards
- ▶ Balcony Decks
- ▶ Patios
- ▶ Walk Ways
- ▶ Pool Linings
- ▶ Privacy Decks
- ▶ Cosmetic Overlays
- ▶ Garage Floors

NCS POOL DECK—GRANITE DECK FINISH

NCS Pool Deck with Granite Deck Finish is a uniquely blended polymer system designed to install quickly with rapid drying, thus allowing foot traffic within a few hours. NCS Pool Deck is comprised of specially blended UV-stabilized Polyurea Resins and color fast aggregates which result in substantial physical properties being achieved.

NCS Pool Deck with Granite Deck Finish is installed in thicknesses of 1/8 inch to 1/4 inch thick and provides a beautiful Granite Deck texture surface (please contact NCS for design specifications). NCS Granite Deck can incorporate traditional drainage systems as deemed necessary.

NCS Pool Deck is warranted to be free from manufacturing defects for a period of 10 years. Project specific warranties can be obtained by contacting NCS representatives or approved applicators.

Technical:

| | |
|---------------------------------|---------------|
| <i>Tensile (PSI) ASTM D412</i> | 2732 |
| <i>Elongation (%) ASTM D412</i> | 360 |
| <i>Tear (PLI) ASTM 2240</i> | 200 |
| <i>Taber Abrasion (mg loss)</i> | |
| <i>ASTM D4060</i> | 80 |
| <i>CS 17 Wheel</i> | 1 kg per 1000 |
| <i>Adhesion ASTM D4541</i> | |
| <i>Concrete (unprimed)</i> | >400 psi |
| <i>Concrete (primed)</i> | >800 psi |
| <i>Wood (unprimed)</i> | >250 psi |
| <i>Steel (unprimed)</i> | >250psi |
| <i>Steel (primed)</i> | >400psi |



ADDITIONAL INFORMATION

| | |
|----------------------------------|------|
| <i>Installation Instructions</i> | 2 |
| <i>Chemical Resistance</i> | 3 |
| <i>MSDS</i> | 4, 9 |
| <i>Sample Warranty</i> | |

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NCS Pool Deck with Granite Deck Finish: Installation Instructions

**SIMPLE SYSTEMS
FOR COMPLICATED
PROJECTS**

**EASILY INSTALLED
OVER ANY TYPE
SURFACE**

**POWERED
BY
REACTAMINE TECHNOLOGY**



Concrete:

1. Remove all laitance and debris from any area receiving the NCS Pool Deck System.
2. Install NCS Primer (refer to NCS Data Sheets).
3. As soon as NCS Primer is tacky, install the NCS Pool Deck in desired color and texture.
4. Allow the NCS Pool Deck to dry until tack free (usually 3 hours).
5. Open to foot traffic or within 24 hours or when tack free.

Wood:

1. Prepare all joints using NCS 2120 Crack Seal (refer to NCS Crack Seal Data Sheets).
2. Install NCS Primer (refer to NCS Primer Data Sheets).
3. As soon as NCS Primer is tacky, install NCS Pool Deck in desired color and texture..
4. Allow the NCS Pool Deck to dry until dry to the touch and no tackiness is felt.
5. Allow to dry 24 hours before opening to foot traffic.

Two Component 100 % Polyurea that achieves excellent UV stability (colorfast) with superior performance in industrial, commercial and residential environments.

NCS displays extremely fast cure times with incredible adhesion to a multitude of substrates.

NCS Systems can be applied in conditions often seen as detrimental to traditional coatings, from temperatures as low as 20 degrees to over 120 degrees Fahrenheit.

NCS conforms and complies with USDA and FDA guidelines for incidental food contact and is moisture insensitive.

Installation of NCS Pool Deck with Granite Deck Finish can be affected if water is present on or in the substrate. It's important to ensure all surfaces are completely dry. Contact NCS for information on Primers to displace moisture in the surface enhancing the overall adhesion NCS systems.

Typical tools for installation of NCS Pool Deck →



Typical Areas of Use:



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NCS Chemical Resistance: Pool Deck with Granite Deck Finish

Chemical Resistance:

Chemical Result (25°C)

| | | | | |
|---|----|-----------------------------------|-------|---|
| Acetic Acid (100%) | C | Muriatic Acid (10%) | R | |
| Acetone | C | NaCl / H ₂ O (10%) | R | |
| Ammonium Hydroxide (50%) | RC | Nitric Acid (50%) | R | R=Recommended Little or no visible damage |
| Benzene | C | Phosphoric Acid (10%) | R | |
| Brine-Saturated H ₂ O (310g/l) | R | Phosphoric Acid (50%) | NR | |
| Chlorinated H ₂ O | R | Potassium Hydroxide (10%) | R,DIS | RC=Recommended Conditional Some effect, swelling, discoloration |
| Clorox® (10%) H ₂ O | R | Potassium Hydroxide (20%) | R | |
| Diesel Fuel | RC | Propylene Carbonate | RC | |
| Gasoline | RC | Skydrol® | C | C=Conditional Cracking-wash down within 1 hour of spillage to avoid effects |
| Gasoline / 5 % MTBE | RC | Sodium Hydroxide (25%) | R | |
| Gasoline / 5% Methanol | RC | Sodium Hydroxide (50%) | R,DIS | |
| Hydrochloric Acid (37%) | R | Sodium Hypochlorite (10%) | R | |
| Hydrofluoric Acid (10%) | NR | Sodium Bicarbonate | R | NR=Not Recommended |
| Hydraulic Fluid (oil) | RC | Stearic Acid | R | Dis=Discoloration |
| Isopropyl Alcohol | R | Sugar / H ₂ O | R | |
| Lactic Acid | RC | Sulfuric Acid (10%) | R | |
| MEK | RC | Sulfuric Acid (50%) | R | |
| Methanol | R | Toluene | R | |
| Methylene Chloride C | | 1,1,1-Trichlorethane | C | |
| Mineral Spirits RC | | Trisodium Phosphate | R | |
| Motor Oil | R | Vinegar / H ₂ O (5%) | R | |
| MTBE | C | H ₂ O | R | |
| | | H ₂ O (14 days @ 82°C) | RC | |
| | | Xylene | RC | |



NCS 6000-B Additional Information

| | | | |
|--|----------------------------|--------------------------------------|-------------|
| <u>Adhesion Results</u> ASTM D-4541 Elcometer | | <u>Typical Processing Properties</u> | |
| Concrete (No Primer) | >400 psi Concrete Failure | Gel Time | 30 Minutes |
| Concrete (Epoxy Primer) | >800 psi Concrete Failure | Tack Free | 1 Hour |
| Steel (No Primer) | >250 psi Substrate Failure | Open to foot traffic | 3 Hours avg |
| Steel (Epoxy Primer) | >400 psi Primer Failure | Open to Vehicle /Industry | 24 Hours |
| Wood (No Primer) | >250 psi Delamination | | |
| NCS Primer + 289 | | <u>Equipment</u> | |
| Shelf Life 6 Months @ 60-100 Degree Fahrenheit | | Air Compressor and Hopper Gun | |
| | | Temperature 45 - 110 Fahrenheit | |
| | | Spray Pressure 100 psi max | |



Coverage Guide

| Coating | S.F. /Gal |
|----------|-----------|
| 20 mils | 70 |
| 30 mils | 48 |
| 40 mils | 36 |
| 50 mils | 29 |
| 60 mils | 24 |
| 80 mils | 18 |
| 100 mils | 14 |
| 250 mils | 5.5 |

For information on solvents that can be used with 6000-B contact:
info@NevadaCoatings.com

Disclaimer

The technical data and any other printed information furnished by **Nevada Coatings Systems (NCS)** is true and accurate to the best of our knowledge. **NCS Pool Deck with Granite Deck Finish** conforms to in-house quality control procedures and should be considered free of defects. Due to the wide range of applications of this product, it is impossible to assume responsibility for any errors in regard to application, coverage, workmanship, over-spray or injuries resulting from the use of **NCS Pool Deck with Granite Deck Finish**. NCS makes no warranty, expressed or implied, of its products and shall not be liable for indirect or consequential damage in any event. For project specific warranties, refer to NCS warranty.

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MATERIAL SAFETY DATA SHEET

NCS 5000 Resin

1. Product and Company Identification

Product Name: NCS 5000 Resin

Chemical Family: Aspartic Ester

2. Hazards Identification

Emergency Overview

CAUTION! Color: Yellow Form: liquid Odor: Slight.

Toxic gases/fumes are given off during burning or thermal decomposition and may cause allergic skin and respiratory reaction. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. May cause respiratory tract irritation.

Potential Health Effects

Primary Routes of Entry: Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by Exposure:

Skin disorders, Respiratory disorders, Eye disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation-Acute Inhalation

Inhalation is unlikely due to the low vapor pressure. If misted or handled at elevated temperatures, high concentrations may cause respiratory tract irritation.

Skin-Acute Skin

Based on materials with similar chemical structures Not expected to be irritating. Not expected to be a skin sensitizer.

Eye-Acute Eye

Based on materials with similar chemical structures Not expected to be irritating.

Ingestion-Acute Ingestion

For Component: Aliphatic Carboxylic Ester

May be harmful if swallowed.

General Effects of Exposure-Chronic Effects of Exposure

No applicable information was found concerning any adverse chronic health effects from overexposure to this product. Repeated or prolonged overexposure may cause effects as noted under acute health effects.

Carcinogenicity:

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

3. Composition/Information on Ingredients

Hazardous Components

Weight % Components CAS-No.

1 - 5% Aliphatic Carboxylic Ester 623-91-6

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4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if irritation develops.

Ingestion

Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media: All extinguishing media are suitable.

Special Fire Fighting Procedures: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards: Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures: Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e.g., dry sand or earth) and collect for proper disposal. Prevent from entering open drains and waterways.

Evacuate and keep unnecessary people out of spill area. Ventilate area to remove vapors or dust.

7. Handling and Storage

Storage Temperature:

minimum: 0 °C (32 °F)

maximum: 50 °C (122 °F)

Storage Period:

6 Months @ 25 °C (77 °F)

Handling/Storage Precautions: Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Do not breathe vapors or spray mist. Store in a dry place away from excessive heat. Material is hygroscopic and may absorb small amounts of atmospheric moisture.

Further Info on Storage Conditions: Avoid contact with moisture/water. Material can be stored safely at am-

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8. Exposure Controls / Personal Protection

Country specific exposure limits have not been established or are not applicable.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines. Curing ovens must be ventilated to prevent the build up of explosive atmospheres and to prevent off gases from entering the work place.

Respiratory Protection

In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary., The use of a positive pressure supplied air respirator is recommended if the airborne concentration is unknown or if spraying is performed in a confined space or area with limited ventilation.

Hand Protection

Permeation resistant gloves.

Eye Protection

Chemical safety goggles or safety glasses with side-shields.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form: liquid **Color:** Yellow

Odor: Slight **pH:** Not Established

Freezing Point: Not Established **Boiling Point/Range:** Not Established

Flash Point: > 93.33 °C (> 200 °F) (Pensky-Martens Closed Cup (ASTM D-93))

Lower Explosion Limit: Not Established **Upper Explosion Limit:** Not Established

Vapor Pressure: < 0.000007 mmHg @ 25 °C (77 °F) **Density:** 1.07 g/cm³

Solubility in Water: Insoluble **Autoignition Temperature:** Not Established

VOC Content: Not Established **Viscosity, Dynamic:** no data available

Bulk Density: 8.89 lb/gal **Hygroscopicity:** hygroscopic

10. Stability and Reactivity

Hazardous Reactions: Hazardous polymerization does not occur.

Stability: Stable

Materials to avoid: Oxidizing agents

Conditions to avoid: Avoid extreme heat.

Hazardous decomposition products: By Fire and Thermal Decomposition: Carbon oxides, nitrogen oxides

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11. Toxicological Information

Toxicity Data for Aspartic Ester

Acute Oral Toxicity: LD50: > 2,000 mg/kg (Rat)

Acute Inhalation Toxicity: LC50: 4923 mg/m³, aerosol, 4 h (Rat)

Skin Irritation: rabbit, Non-irritating

Eye Irritation: rabbit, Non-irritating

Sensitization: Maximization Test (GPMT): non-sensitizer (Guinea pig) Mutagenicity

Genetic Toxicity in Vitro: Ames: negative (Salmonella typhimurium)

Toxicity Data for Aliphatic Carboxylic Ester

Acute Oral Toxicity: LD50: 1,780 mg/kg (Rat)

12. Ecological Information

Ecological Data for Aspartic Ester

Biodegradation: 30 %, Exposure time: 28 d, Not readily biodegradable.

Acute and Prolonged Toxicity to Fish: LC0: > 87 mg/l (Zebra fish (Brachydanio rerio), 96 h)

Acute Toxicity to Aquatic Invertebrates: EC0: 96.8 mg/l (Water flea (Daphnia magna), 48 h)

Toxicity to Aquatic Plants: EC50: > 41.2 - < 84.2 mg/l, (Green algae (Scenedesmus subspicatus), 72 h)

Toxicity to Microorganisms: EC50: > 10,000 mg/l, (Other bacteria)

Ecological Data for Aliphatic Carboxylic Ester

Acute and Prolonged Toxicity to Fish: 38 mg/l (Fathead minnow (Pimephales promelas), 96 h)

13. Disposal considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions: Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Empty containers retain product residue (dust, liquid, vapor and/or gases) and can be dangerous. Do not heat or cut container with electric or gas torch.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

CONTACT

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Info@NevadaCoatings.com 760-898-5408

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15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components-None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components-None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components-None

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight % Components CAS-No.

>=1% Aspartic Ester CAS# is a trade secret

1 - 5% Aliphatic Carboxylic Ester 623-91-6

California Prop. 65:

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

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16. Other Information

NFPA 704M Rating

| | | | |
|----------------------|---------------|---------------------|-------------------|
| HMIS RATINGS: | HEALTH | FLAMMABILITY | REACTIVITY |
| | 2 | 1 | 1 |

0 =Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Nevada Coatings Systems (NCS). The information in this MSDS relates only to the specific material designated herein. Nevada Coatings Systems assumes no legal responsibility for use of or reliance upon the information in this MSDS.

NOTES: