Novagard Solutions™
MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: RTV 200 Series


1.2 GENERIC DESCRIPTION: Silicone conformal coating

1.3 MANUFACTURED BY: Novagard Solutions™
5109 Hamilton Avenue
Cleveland, OH 44114
216-881-8111

1.4 COMPANY WEB SITE: www.novagard.com

1.5 EMERGENCY PHONE NUMBER: CHEMTREC 800-424-9300 (24 hour)

1.6 EMAIL ADDRESS: techsolutions@novagard.net

SECTION 2 – HAZARD IDENTIFICATION

2.1 CLASSIFICATION OF SUBSTANCE

This product is not hazardous according to OSHA standards.

Flammable Liquid Category 4  /  Acute Toxicity Category 5  /  Skin Irritation Category 3

2.2 LABELING ELEMENTS

Warning

H227: Combustible Liquid
H333: May be harmful if inhaled
H303: May be harmful if swallowed
H316: Causes mild skin irritation
**Novagard Solutions™**

**MATERIAL SAFETY DATA SHEET**

### SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS


<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS No.</th>
<th>WT %</th>
<th>EINECS NUMBER</th>
<th>REACH REGISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, amorphous</td>
<td>68611-44-9</td>
<td>0-15</td>
<td>271-893-4</td>
<td>Yes</td>
</tr>
<tr>
<td>Methyl Oximino Silane</td>
<td>22984-54-9</td>
<td>0-5</td>
<td>245-366-4</td>
<td>Yes</td>
</tr>
<tr>
<td>Tetra Oximino Silane</td>
<td>34206-40-1</td>
<td>0-0.5</td>
<td>251-882-0</td>
<td>Yes</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>0-0.5</td>
<td>203-635-9</td>
<td>Yes</td>
</tr>
<tr>
<td>Vinyl Oximino Silane</td>
<td>2224-33-1</td>
<td>0-4</td>
<td>218-747-8</td>
<td>Yes</td>
</tr>
<tr>
<td>Aminopropyltriethoxysilane</td>
<td>919-30-2</td>
<td>0-2</td>
<td>213-048-4</td>
<td>Yes</td>
</tr>
<tr>
<td>Dibutyl tin dilaurate</td>
<td>77-58-7</td>
<td>&lt;0.2%</td>
<td>201-039-8</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### SECTION 4 - FIRST AID MEASURES

4.1 PRECAUTIONARY STATEMENTS

P264: Wash thoroughly after handling
P312: Call a doctor if you fell unwell
P332: If skin irritation occurs get medical attention

Eye: Contact with the eyes may cause temporary irritation. Flush eyes with copious amounts of water for a minimum of 15 minutes. If chronic irritation develops contact a physician.

Skin: Contact with skin may cause irritation. Wash contacted areas with soap and water.

Oral: If ingested do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

### SECTION 5 - FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Water, CO₂, Dry Chemical, Foam.

5.2 SPECIAL FIRE FIGHTING PROCEDURES

None

5.3 HAZARDOUS DECOMPOSITION PRODUCTS

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300°F and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

Disposal of collected product, residues and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Scrape up and contain for salvage or disposal. Wash all walking surfaces with detergent and water to reduce slipping hazard. Observe all personal and protection equipment recommendations described in Section 5 and 8. Local, state and federal reporting requirements may apply to spills or releases of this matter into the environment. See applicable regulatory compliance information in Section 15.
**Novagard Solutions™**

MATERIAL SAFETY DATA SHEET

**SECTION 7 - HANDLING AND STORAGE**

PRECAUTIONS  Keep container closed when not in use. Avoid contact with skin and eyes.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 ENGINEERING CONTROLS

Local exhaust: Recommended  General ventilation: Recommended  Eyewash stations: Recommended

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

8.2 PERSONAL PROTECTIVE EQUIPMENT FOR ROUTINE HANDLING

Eye Protection:  Use proper protection - safety glasses as a minimum
Skin Protection:  Wash after any contact. Chemical protective gloves are recommended
Respiratory Protection:  Not required for properly ventilated areas. If high levels of vapor or mist should accumulate, use NIOSH approved respirator with organic vapor cartridge

8.3 MISCELLANEOUS INFORMATION

Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control exposure within guidelines (see Section 2) or use respiratory protection. Product evolves alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within Section 2 guidelines. Respiratory protection should be considered for exposures resulting from unusual tasks and/or use in non-ventilated areas.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point:</td>
<td>79.5°C (Pensky-Martin Close Cup Method)</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>Upper - Not Determined  Lower - Not Determined</td>
</tr>
<tr>
<td>Physical form</td>
<td>Hazy liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>slight sulfur smell</td>
</tr>
<tr>
<td>Specific Gravity @25°C:</td>
<td>1.00</td>
</tr>
<tr>
<td>Boiling Point (@ 760 mm Hg)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing/melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Volatile content:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>VOC (EPA method 24):</td>
<td>&lt;25 gm/l</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>&lt; 1.0%</td>
</tr>
<tr>
<td>Solubility in organic solvent:</td>
<td>Mineral spirits</td>
</tr>
</tbody>
</table>
Novagard Solutions™
MATERIAL SAFETY DATA SHEET

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability: Stable
Hazardous polymerization: Will not occur
Conditions to avoid: None known
Materials to avoid: None known
Conditions to avoid: None known
Hazardous thermal decomposition and combustion by-products: Carbon monoxide, carbon dioxide, silicon dioxide, and formaldehyde

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 ACUTE TOXICITY

Acute oral LD 50 (rat) >2000 mg/kg (crosslinker component)
Acute dermal LD50 (rabbit) 1000-1800 mg/kg (MEKO)
Acute Inhalation LC50 (rat) >4.8 mg/l @ 4H time (MEKO)

On Contact Eye: May irritate eyes
On Contact with Skin: May cause mild skin irritation
On Inhalation: Not anticipated during industrial use
Oral: Not anticipated during industrial use

11.2 CRONIC TOXICITY

Carcinogens: This product does not contain any ingredients listed by IARC, NTP or OSHA as chemical carcinogens.
Teratogens: None known
Mutagens: None known
Reproductive Toxins: None known

SECTION 12 - ECOLOGICAL INFORMATION

12.1 ECOTOXICITY EFFECTS

Mixture is not toxic to aquatic organisms.

12.2 PERSISTANCE AND DEGRADABILITY

Solid material that is insoluble in water. The products of degradation are less toxic than the product itself.

12.3 BIOACCUMULATION

No bioaccumulation data is available
SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal method: Disposal should be made in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Not Regulated for domestic transport

DOT shipping name: Combustible Liquid
DOT hazard class: Class 3
DOT labels: Combustible Liquid
UN/NA number: none

UNRTDG: Not regulated as a dangerous good
ITATA-DGR: Not regulated as a dangerous good
IMDG: Code not regulated as a dangerous good

SECTION 15 - REGULATORY INFORMATION

15.1 INVENTORY STATUS

All chemical substances found in this product comply with the (TSCA) reporting requirements

All chemical components found in this product are listed, exempt or notified via EINECS (ELINCS)

AICS: All components listed, exempt or notified
DSL: All components listed, exempt or notified

15.2 EPA SARA Title III Chemical Listings:

40 CFR 355 Section 302
Extremely Hazardous Substance List: None found
Section 312, 311 Hazard Class: None
40 CFR 372.65 Section 313 Toxic Chemical List: None found

Hazard Rating System:

HMIS: Flammability 1, Reactivity 0, Health 1
NFAPA: Flammability 1, Reactivity 0, Health 1

California Proposition 65: None

SECTION 16 - OTHER INFORMATION

REVISED: 06-23-2017

The information presented in this Safety Data Sheet relates only to the specific product designated herein, and no warranty, or guarantee, either expressed or implied is made regarding the performance and conditions of this product. This information is based upon information that Novagard believes to be true and accurate; however, it is the responsibility of each user to review this information within the specific context of their intended application.