Printing date 06/24/2019 Reviewed on 06/24/2019

1 Identification

· Product identifier

· Trade name: RTV 900-500 / RTV 900-502 (RTV 900-50x)

- Application of the substance / the mixture Industrial Adhesive Sealant
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Novagard Solutions Inc 5109 Hamilton Avenue CLEVELAND, OH 44114 USA

- · Information department: R&D Department
- Emergency telephone number:

CHEMTREC 1-800-424-9300 (USA)

+1 703-741-5970 (International)

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

N-(3-(trimethoxysilyl)propyl)ethylenediamine dibutyltin dilaurate

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray

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Safety Data Sheet acc. to OSHA HCS

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Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- · NFPA ratings (scale 0 4)



Health = 2 Fire = 1 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *2

Fire = 1

Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixture
- · **Description:** Mixture of the substances listed below with nonhazardous additions.

Dangerous components:			
471-34-1	calcium carbonate	40–50%	
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1.5–2.9%	
2768-02-7	trimethoxyvinylsilane	1–2%	
77-58-7	dibutyltin dilaurate	0.05–0.1%	

4 First-aid measures

- Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

471-34-1	calcium carbonate	45 mg/m ³
	N-(3-(trimethoxysilyl)propyl)ethylenediamine	23 mg/m ³
	trimethoxyvinylsilane	9.5 ppm
77-58-7	dibutyltin dilaurate	1.1 mg/m
58-36-6	Arsenazo III	5 mg/m ³
PAC-2:		
471-34-1	calcium carbonate	210 mg/m
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	250 mg/m
2768-02-7	trimethoxyvinylsilane	100 ppm
77-58-7	dibutyltin dilaurate	8 mg/m ³
58-36-6	Arsenazo III	
PAC-3:		·
471-34-1	calcium carbonate	1,300 mg/m
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1,500 mg/m
2768-02-7	trimethoxyvinylsilane	120 ppm
77-58-7	dibutyltin dilaurate	48 mg/m ³
58-36-6	Arsenazo III	84 mg/m ³

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7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Keep respiratory protective device available.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

At this time, the other constituents have no known exposure limits.

471-34-1 calcium carbonate

PEL Long-term value: 15* 5** mg/m³

*total dust **respirable fraction

REL Long-term value: 10* 5** mg/m³ *total dust **respirable fraction

TLV TLV withdrawn

77-58-7 dibutyltin dilaurate

PEL Long-term value: 0.1 mg/m³

as Sn

REL Long-term value: 0.1 mg/m³

as Sn, Skin

Short-term value: 0.2 mg/m³

Long-term value: 0.1 mg/m³

as Sn: Skin

- · Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

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(Contd. of page 4)

Safety Data Sheet acc. to OSHA HCS

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Trade name: RTV 900-500 / RTV 900-502 (RTV 900-50x)

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemic	cai properties
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- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Pasty

Color: Various colors

· Odor: Mild

Odor threshold: Not determined.

· pH-value: Not applicable.

· Change in condition

Melting point/Melting range: Undetermined. Boiling point/Boiling range: Undetermined.

· Flash point: Not applicable.

• Flammability (solid, gaseous): Not determined.

• **Decomposition temperature:** Not determined.

• **Auto igniting:** Product is not selfigniting.

• Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.

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	(Contd. of p	page 5
Upper:	Not determined.	
· Vapor pressure:	Not applicable.	
 Density: Relative density Vapor density Evaporation rate 	Not determined. Not determined. Not applicable. Not applicable.	
· Solubility in / Miscibility with Water:	Insoluble.	
· Partition coefficient (n-octanol/wa	ater): Not determined.	
· Viscosity: Dynamic: Kinematic:	Not applicable. Not applicable.	
· Solvent content: VOC content:	0.00 %	
Solids content: Other information	100.0 % No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- Hazardous decomposition products:

Combustion may evolve carbon oxides, silicone dioxide and formaldehyde.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Inhalative LC50/4 h 75-150 mg/l

471-34-1	calcium	carbonate

Oral LD50 6,450 mg/kg (rat)

77-58-7 dibutyltin dilaurate

Oral LD50 175 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.

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Trade name: RTV 900-500 / RTV 900-502 (RTV 900-50x)

· Additional toxicological information:

(Contd. of page 6)

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- · UN-Number
- · DOT, ADN, IMDG, IATA not regulated
- · UN proper shipping name
- DOT, ADN, IMDG, IATA not regulated

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Trade name: RTV 900-500 / RTV 900-502 (RTV 900-50x)

		(Contd. of page 7)
· Transport hazard class(es)		
· DOT, ADN, IMDG, IATA · Class	not regulated	
· Packing group · DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	l of Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

58-36-6 Arsenazo III

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

·TSCA	(Toxic	Substances	Control	Act):
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471-34-1	calcium carbonate	ACTIVE
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	ACTIVE
2768-02-7	trimethoxyvinylsilane	ACTIVE
77-58-7	dibutyltin dilaurate	ACTIVE
41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	ACTIVE
125643-61-0	A mixture of isomers of: C7-9-alkyl-3-(3,5-di-trans-butyl-4-hydroxyphenyl) propionate	ACTIVE
82919-37-7	methyl 1,2,2,6,6-pentamethyl-4-piperidylsebacate	ACTIVE

· Hazardous Air Pollutants

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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Trade name: RTV 900-500 / RTV 900-502 (RTV 900-50x)

(Contd. of page 8)

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

77-58-7 dibutyltin dilaurate

Α4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

N-(3-(trimethoxysilyl)propyl)ethylenediamine dibutyltin dilaurate

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

· Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Regulatory Compliance Department
- · Contact: novagard@novagard.net

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Trade name: RTV 900-500 / RTV 900-502 (RTV 900-50x)

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· Date of preparation / last revision 06/24/2019 / -

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, ÉU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Skin Sens. 1: Skin sensitisation – Category 1 Repr. 1B: Reproductive toxicity – Category 1B

* Data compared to the previous version altered.

US