

## Safety Data Sheet

acc. to OSHA HCS


Printing date 02/10/2021

Reviewed on 02/10/2021

### 1 Identification

- **Product identifier**
- **Trade name: NovaTherm 600-350 Part A**
- **Application of the substance / the mixture** 2 Part Thermal Interface Material
- **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**  
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**  
 Health = 0  
Fire = 1  
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**  

HEALTH	0
FIRE	1
REACTIVITY	0

 Health = 0  
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.

(Contd. on page 2)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/10/2021

Reviewed on 02/10/2021

Trade name: NovaTherm 600-350 Part A

(Contd. of page 1)

· **Dangerous components:** Void

## 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **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:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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**

- **PAC-1:**

1344-28-1	aluminium oxide	15 mg/m <sup>3</sup>
68083-19-2	Dimethyl Siloxane, vinyl group terminated	48 mg/m <sup>3</sup>
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	9.3 mg/m <sup>3</sup>
21645-51-2	aluminium hydroxide	8.7 mg/m <sup>3</sup>

- **PAC-2:**

1344-28-1	aluminium oxide	170 mg/m <sup>3</sup>
68083-19-2	Dimethyl Siloxane, vinyl group terminated	530 mg/m <sup>3</sup>
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	100 mg/m <sup>3</sup>
21645-51-2	aluminium hydroxide	73 mg/m <sup>3</sup>

(Contd. on page 3)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 02/10/2021

Reviewed on 02/10/2021

Trade name: NovaTherm 600-350 Part A

(Contd. of page 2)

· PAC-3:		
1344-28-1	aluminium oxide	990 mg/m <sup>3</sup>
68083-19-2	Dimethyl Siloxane, vinyl group terminated	3,200 mg/m <sup>3</sup>
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	230 mg/m <sup>3</sup>
21645-51-2	aluminium hydroxide	440 mg/m <sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **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:** None.
- **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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
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:** Goggles recommended during refilling.

US  
(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/10/2021

Reviewed on 02/10/2021

Trade name: NovaTherm 600-350 Part A

(Contd. of page 3)

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form:

Liquid

Color:

According to product specification

#### · Odor:

Mild

#### · Odor threshold:

Not determined.

#### · pH-value:

Not determined.

#### · Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Undetermined.

#### · Flash point:

Not applicable.

#### · Flammability (solid, gaseous):

Not applicable.

#### · 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.

Upper:

Not determined.

#### · Vapor pressure:

Not determined.

#### · Density:

Not determined.

#### · Relative density

Not determined.

#### · Vapor density

Not determined.

#### · Evaporation rate

Not determined.

#### · Solubility in / Miscibility with

Water at 20 °C (68 °F):

0% g/l

#### · Partition coefficient (n-octanol/water):

Not determined.

#### · Viscosity:

Dynamic:

Not determined.

Kinematic:

Not determined.

#### · Other information

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.

(Contd. on page 5)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/10/2021

Reviewed on 02/10/2021

Trade name: NovaTherm 600-350 Part A

(Contd. of page 4)

- **Hazardous decomposition products:**  
Combustion may evolve carbon monoxide, carbon dioxide, silicon dioxide and formaldehyde

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **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 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **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:** Smaller quantities can be disposed of with household waste.

(Contd. on page 6)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 02/10/2021

Reviewed on 02/10/2021

Trade name: NovaTherm 600-350 Part A

(Contd. of page 5)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, IMDG, IATA</b>   | not regulated   |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, IMDG, IATA</b>   | not regulated   |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADN, IMDG, IATA</b>  |                 |
| · <b>Class</b>   | not regulated   |
| · <b>Packing group</b>   |                 |
| · <b>DOT, IMDG, IATA</b>   | not regulated   |
| · <b>Environmental hazards:</b>  | Not applicable. |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | not regulated   |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

1344-28-1 aluminium oxide

- **TSCA (Toxic Substances Control Act):**

1344-28-1	aluminium oxide	ACTIVE
68083-19-2	Dimethyl Siloxane, vinyl group terminated	ACTIVE
1317-65-3	calcium carbonate	ACTIVE
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	ACTIVE
21645-51-2	aluminium hydroxide	ACTIVE
2554-06-5	Tetravinyl tetramethylcyclotetrasiloxane	ACTIVE
2627-95-4	1,3 Divinyltetramethyldisiloxane	ACTIVE

- **Hazardous Air Pollutants**

None of the ingredients is listed.

(Contd. on page 7)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 02/10/2021

Reviewed on 02/10/2021

Trade name: NovaTherm 600-350 Part A

(Contd. of page 6)

- **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.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

1344-28-1 aluminium oxide

A4

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

None of the ingredients is listed.

- **GHS label elements** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **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

- **Date of preparation / last revision** 02/10/2021 / -

- **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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

- **\* Data compared to the previous version altered.**