

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

1 Identification

- **Product identifier**
- **Trade name:** Novaflex MR Series
- **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. 2 H361 Suspected of damaging fertility or the unborn child.

Eye Irrit. 2B H320 Causes eye irritation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Warning
- **Hazard statements**
Causes eye irritation.
Suspected of damaging fertility or the unborn child.
- **Precautionary statements**
Wash thoroughly after handling.
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.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 1
Reactivity = 0

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 1)

- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	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:**

22984-54-9	butan-2-one O,O',O''-(methylsilyldiylidene)trioxime	0–5%
556-67-2	octamethylcyclotetrasiloxane	0.04–0.4%

4 First-aid measures

- **Description of first aid measures**
- **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. If symptoms persist, consult a doctor.
- **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.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 2)

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

919-30-2	3-aminopropyltriethoxysilane	1.9 mg/m ³
13822-56-5	3-(trimethoxysilyl)propylamine	30 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	30 ppm
77-58-7	dibutyltin dilaurate	1.1 mg/m ³

- **PAC-2:**

919-30-2	3-aminopropyltriethoxysilane	21 mg/m ³
13822-56-5	3-(trimethoxysilyl)propylamine	330 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	68 ppm
77-58-7	dibutyltin dilaurate	8 mg/m ³

- **PAC-3:**

919-30-2	3-aminopropyltriethoxysilane	350 mg/m ³
13822-56-5	3-(trimethoxysilyl)propylamine	2,000 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	130 ppm
77-58-7	dibutyltin dilaurate	48 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **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:** 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.

556-67-2 octamethylcyclotetrasiloxane

WEEL	Long-term value: 10* ppm
	*OARS WEEL

- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 3)

- **Exposure controls**

Product evolves methyl ethyl ketone (MEKO) when exposed to water or humid air. Provide ventilation during use.

- **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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- **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:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Pasty

Color:

Different according to coloring

- **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.

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 4)

- | | |
|---|--|
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not applicable. |
| · Density at 20 °C (68 °F): | 1.15–1.35 g/cm ³ (9.59675–11.26575 lbs/gal) |
| · Relative density | Not determined. |
| · Vapor density | Not applicable. |
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with Water: | Insoluble. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |
| · 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.
- **Hazardous decomposition products:**
Carbon monoxide, carbon dioxide, silicon dioxide and formaldehyde may be formed during combustion.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

Oral	LD50	>2,000 mg/kg (rat)
------	------	--------------------

· Primary irritant effect:

- **on the skin:** May cause skin irritation.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

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

(Contd. on page 6)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 5)

- **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

- **Transport hazard class(es)**

- **DOT, ADN, IMDG, IATA**

- **Class** not regulated

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 6)

- | | |
|--|-----------------|
| · Packing group | |
| · DOT, IMDG, IATA | not regulated |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | 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):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

1317-65-3	calcium carbonate	ACTIVE
68611-44-9	Silica, amorphous	ACTIVE
22984-54-9	butan-2-one O,O',O''-(methylsilylidyne)trioxime	ACTIVE
919-30-2	3-aminopropyltriethoxysilane	ACTIVE
13822-56-5	3-(trimethoxysilyl)propylamine	ACTIVE
34206-40-1	butan-2-one O,O',O'',O'''-silanetetrayltetraoxime	ACTIVE
556-67-2	octamethylcyclotetrasiloxane	ACTIVE
77-58-7	dibutyltin dilaurate	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.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

77-58-7 dibutyltin dilaurate

A4

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/27/2020

Reviewed on 01/27/2020

Trade name: Novaflex MR Series

(Contd. of page 7)

• 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



GHS08

• Signal word Warning

• Hazard statements

Causes eye irritation.

Suspected of damaging fertility or the unborn child.

• Precautionary statements

Wash thoroughly after handling.

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.

If eye irritation persists: Get medical advice/attention.

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

• Date of preparation / last revision 01/27/2020 / -

• 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)

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

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

Repr. 2: Reproductive toxicity – Category 2

• * Data compared to the previous version altered.

US