

## SAFETY DATA SHEET

Version 1.0  
Revision Date 06/11/2015

---

### 1. PRODUCT AND COMPANY INFORMATION

Product Name : N-REX™ (Novinium® Radial Exclusion Fluid)  
Supplier : Novinium, Inc.  
22820 Russell Road  
Kent, WA 98032 USA  
Telephone : +1 253-395-0200  
Fax : +1 253-395-1040  
Emergency Phone : +1 703-527-3887  
: +1 800-424-9300 (within US or Canada)

---

### 2. HAZARDS IDENTIFICATION

#### 2.1 Emergency Overview

##### OSHA Hazards

Combustible liquid

##### GHS Classification

Flammable liquids (Category 4)

##### GHS Label Elements, including precautionary statements

Pictogram	None
Signal Word	Warning
Hazard statement(s)	
H227	Combustible liquid

Precautionary statement(s)  
None

##### HMIS Classification

Health hazard:	0
Flammability:	2
Physical hazards:	0

## NFPA Rating

Health hazard: 0  
Fire: 2  
Reactivity Hazard: 0

## Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.  
Skin: May be harmful if absorbed through skin. May cause skin irritation.  
Eyes: May cause eye irritation.  
Ingestion: May be harmful if swallowed.

---

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Mixtures

Component		Concentration
<b>Decamethyltetrasiloxane</b>		
CAS-No.	141-62-8	>85%
<b>Dodecamethylpentasiloxane</b>		
CAS-No.	141-63-9	<10%
<b>Octamethyltrisiloxane</b>		
CAS-No.	107-51-7	<10%

---

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water for 15 minutes. Consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

---

## 5. FIREFIGHTING MEASURES

### 5.1 Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

### 5.2 Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.3 Hazardous combustion products

Hazardous decomposition products formed under fire conditions-carbon oxides, silicon oxides.

### 5.4 Further information

Use water spray to cool unopened containers.

---

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions

Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and materials for containment and clean up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

---

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid inhalation of vapor or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

### 7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### 8.1 Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate; use a full-face respirator with multi-purpose combination (US) or type ABEK(EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye Protection

Safety glasses with side shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

### **Skin and body protection**

Long sleeves, long pants and closed leather shoes are recommended.

### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

---

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Appearance**

- |          |              |
|----------|--------------|
| a) Form  | liquid       |
| b) Color | Clear liquid |

### **9.2 Safety data**

- |  |                                      |
|--|--------------------------------------|
| a) pH                                    | No data available                    |
| b) Melting/Freezing point                | <-76°C                               |
| c) Boiling point                         | 152-220°C                            |
| d) Flash point                           | 63°C(144°F)-closed cup               |
| e) Ignition temperature                  | No data available                    |
| f) Auto-ignition Temperature             | 425°C                                |
| g) Lower explosion limit                 | No data available                    |
| h) Upper explosion limit                 | No data available                    |
| i) Vapor Pressure                        | 104°C; 50mm                          |
| j) Density                               | 0.85g/cm <sup>3</sup> at 25°C (77°F) |
| k) Water Solubility                      | 6.7ppb                               |
| l) Partition coefficient n-octanol/water | No data available                    |
| m) Relative vapor density                | >1<br>(Air=1.0)                      |
| n) Odor                                  | No data available                    |
| o) Odor Threshold                        | No data available                    |
| p) Evaporation rate                      | No data available                    |

---

## **10. STABILITY AND REACTIVITY**

### **10.1 Chemical stability**

Stable under recommended storage conditions

### **10.2 Possibility of hazardous reactions**

No data available

### **10.3 Conditions to avoid**

Heat, flames and sparks

#### 10.4 Materials to avoid

Strong acids, Strong bases, Strong oxidizing agents

#### 10.5 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.-Carbon oxides, silicon oxides.  
Other decomposition products-formaldehyde

---

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

##### Acute toxicity

Oral LD50

No data available

Inhalation LC50

No data available

Dermal LD50

No data available

Other information on acute toxicity

No data available

##### Skin corrosion/irritation

No data available

##### Serious eye damage/eye irritation

No data available

##### Respiratory or skin sensitization

No data available

##### Germ cell mutagenicity

No data available

##### Carcinogenicity

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No components of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by OSHA.

##### Reproductive toxicity

No data available

##### Specific target organ toxicity - single exposure

No data available

##### Specific target organ toxicity - repeated exposure

No data available

##### Aspiration hazard

No data available

## Potential health effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

## Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Additional Information

RTECS: Not available

---

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 PBT and vPvB assessment

No data available.

### 12.6 Other adverse effects

No data available

---

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

---

## 14. TRANSPORT INFORMATION

### 14.1 DOT (US)

Not dangerous goods

### 14.2 IMDG

Not dangerous goods

### 14.3 IATA

Not dangerous goods

---

## 15. REGULATORY INFORMATION

### 15.1 OSHA Hazards

Combustible liquid

### 15.2 SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### 15.3 SARA 313 Components

SARA 313: This material does not contain components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### 15.4 SARA 311/312 Hazards

Fire hazard

### 15.5 Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

### 15.6 Pennsylvania Right to Know Components

Decamethyltetrasiloxane	CAS-No. 141-62-8	Revision Date
Dodecamethylpentasiloxane	CAS-No. 107-639-9	
Octamethyltrisiloxane	CAS-No. 107-51-7	

### 15.7 New Jersey Right to Know Components

Decamethyltetrasiloxane	CAS-No. 141-62-8	Revision Date
Dodecamethylpentasiloxane	CAS-No. 107-639-9	
Octamethyltrisiloxane	CAS-No. 107-51-7	

### 15.8 California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

---

## 16. OTHER INFORMATION

### Further information

The information contained in this document has been gathered from reference materials and/or test data and is to our best knowledge and belief accurate and reliable. Such information is offered solely for your consideration, identification, and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. There are no warranties expressed or implied with respect to the use of such information and we assume no responsibility therefore. It is advised that users carry out their own tests to determine the safety and suitability of each product or combination of products for their end use.

Notice: Novinium® is a registered trademark and N-REX™ is a trademark of Novinium, Inc. The Novinium process and N-REX materials are protected by granted and pending U.S. Patents and their foreign equivalents including 7,195,504, 7,353,601, 7,538,274, 7,611,748, 7,615,247, 7,643,977, 7,658,808, 7,683,260, 7,700,871, 7,848,912, 7,976,747, 8,101,034, 8,205,326, 8,475,194, and 8,572,842. An expanded list is available at [www.novinium.com](http://www.novinium.com).