1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: CableCURE® 732 Life Extension Fluid

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Additive for power cable

1.3 Details of the supplier of the safety data sheet

Company: Novinium, Inc.
22820 Russell Road
Kent, WA 98032
USA

Telephone: +1 253-395-0200
Fax: +1 253-395-1040

1.4 Emergency telephone number

Emergency Phone #: +1 703-527-3887
+1 800-424-9300 (within US or Canada).

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 4), H227
Acute toxicity, Oral (Category 4), H302

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word: Warning

Hazard statement(s)
H227: Combustible liquid
H302: Harmful if swallowed.

Precautionary statement(s)
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P330: Rinse mouth.
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235: Store in a well-ventilated place. Keep cool.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyanobutylmethyldimethoxysilane</td>
<td></td>
<td>30 - 81 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>793681-94-4</td>
<td></td>
</tr>
<tr>
<td>Tolylethylmethyldimethoxysilane</td>
<td></td>
<td>2 - 32 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>722542-80-5</td>
<td></td>
</tr>
<tr>
<td>p-Methylphenylmethyldimethoxysilane</td>
<td></td>
<td>2 - 32 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>722542-79-2</td>
<td></td>
</tr>
<tr>
<td>Ferrocene</td>
<td>Flam. Sol. 1; Acute Tox. 4; H228, H302</td>
<td>&lt; 4 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>102-54-5</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>203-039-3</td>
<td></td>
</tr>
<tr>
<td>Tinuvin 123</td>
<td>Aquatic Chronic 4; H413</td>
<td>&lt; 4 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>Trade Secret</td>
<td></td>
</tr>
<tr>
<td>Tinuvin 1130</td>
<td>Allergic Skin Reaction; H317; Aquatic Toxicity; H411</td>
<td>&lt; 3 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>104810-47-1</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>104810-48-2</td>
<td></td>
</tr>
<tr>
<td>Irgastab Cable KV 10</td>
<td>4-[(Dimethoxymethylsilyl)propyl]-2, 6 – di – tert – butylphenol</td>
<td>&lt; 5 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>102567-35-1</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

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 as a precaution.

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

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
no data available
5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use water jet.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), sulphur oxides, iron oxides, silicon oxides

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
For personal protection see section 8.

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 cleaning 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.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
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.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters
8.2 Exposure controls

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

**Personal protective equipment**

**Eye/face protection**
Safety glasses with side shields conforming to ANSI Z87.1. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH.

**Skin 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.

The selected protective gloves have to satisfy the specifications of ANSI 105.

**Body Protection**
Impervious clothing is recommended. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**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).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrocene</td>
<td>102-54-5</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>15 mg/m³ (Total Dust)</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m³ (Respirable Dust Fraction)</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: liquid
   Color: green to brown

b) Odor
   Mildly sweet

c) Odor Threshold
   10 to 20,000 ppm

d) pH
   no data available

e) Melting point/freezing point
   < -18 °C (< 0 °F)

f) Initial boiling point and boiling range
   > 90 °C (> 194 °F)

g) Flash point
   > 85 °C (> 185 °F)

h) Evaporation rate
   Slow

i) Flammability (solid, gas)
   no data available

j) Upper/lower flammability or explosive limits
   no data available
k) Vapor pressure: no data available
l) Vapor density: >1
m) Relative density: 0.99 g/cm³ @23°C
n) Water solubility: Insoluble, reacts
o) Partition coefficient: n-octanol/water: no data available
p) Auto-ignition temperature: no data available
q) Decomposition temperature: no data available
r) Viscosity: 2.8 – 3.4 cS at 20 °C
s) Explosive properties: no data available
t) Oxidizing properties: no data available

9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
Reacts with water to liberate methanol.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
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 component 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 component 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 component 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 component of this product present at levels greater than or equal to 0.1% is identified as a 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

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

Signs and Symptoms of Exposure

This product reacts with water and moisture to form methanol. The combination of visual disturbances, metabolic acidosis, and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10mls/hr) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid/base balance.

Stomach - Irregularities - Based on Human Evidence (Ferrocene)  
Stomach - Irregularities - Based on Human Evidence (Tinuvin 123)

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 Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

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

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

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrocene</td>
<td>102-54-5</td>
<td>1994-04-24</td>
</tr>
</tbody>
</table>

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyanobutylmethyldimethoxysilane</td>
<td>793681-94-4</td>
<td></td>
</tr>
<tr>
<td>Silane, dimethoxymethyl[1-(methylphenyl)ethyl]-</td>
<td>722542-80-5</td>
<td></td>
</tr>
<tr>
<td>dimethoxymethyl[2-(methylphenyl)ethyl]silane</td>
<td>722542-79-2</td>
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</tr>
<tr>
<td>4-[(Dimethoxymethylsilyl)propyl]-2,6-di-tert-butylphenol</td>
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<td></td>
</tr>
<tr>
<td>Ferrocene</td>
<td>102-54-5</td>
<td>1994-04-24</td>
</tr>
<tr>
<td>Tinuvin 123</td>
<td>129757-67-1</td>
<td></td>
</tr>
<tr>
<td>Tinuvin 1130</td>
<td>104810-48-2</td>
<td></td>
</tr>
</tbody>
</table>

New Jersey Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyanobutylmethyldimethoxysilane</td>
<td>793681-94-4</td>
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</tr>
<tr>
<td>Silane, dimethoxymethyl[1-(methylphenyl)ethyl]-</td>
<td>722542-80-5</td>
<td></td>
</tr>
<tr>
<td>dimethoxymethyl[2-(methylphenyl)ethyl]silane</td>
<td>722542-79-2</td>
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</tr>
<tr>
<td>4-[(Dimethoxymethylsilyl)propyl]-2,6-di-tert-butylphenol</td>
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<tr>
<td>Ferrocene</td>
<td>102-54-5</td>
<td>1994-04-24</td>
</tr>
<tr>
<td>Tinuvin 123</td>
<td>129757-67-1</td>
<td></td>
</tr>
</tbody>
</table>

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

<table>
<thead>
<tr>
<th>Acute Tox.</th>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic</td>
<td>Chronic aquatic toxicity</td>
</tr>
<tr>
<td>Flam. Sol.</td>
<td>Flammable solids</td>
</tr>
<tr>
<td>H227</td>
<td>Combustible liquid</td>
</tr>
<tr>
<td>H228</td>
<td>Flammable solid.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life.</td>
</tr>
</tbody>
</table>
### HMIS Rating
- Health hazard: 1
- Chronic Health Hazard: *
- Flammability: 2
- Physical Hazard: 0

### NFPA Rating
- Health hazard: 1
- Fire Hazard: 2
- Reactivity Hazard: 0

### 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® and CableCURE® are registered trademarks of Novinium, Inc. The Novinium process and CableCURE 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, and 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.

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