Material Safety Data Sheet

NOV Plex™

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: NOV Plex™
Generic Description: Sulfonated Asphalt
Date Prepared: 7/2010

Supplier:

NOV FluidControl
4310 N. Sam Houston Parkway E
Houston, TX 77032
Office: (713) 482-0500
Fax: (713) 482-0695
Company website: www.nov.com

Emergency Telephone Number:
CHEMTREC: 1-800-424-9300 or International +1-703-527-3887

II. COMPOSITION

<table>
<thead>
<tr>
<th>Material or Component</th>
<th>CAS Number</th>
<th>OSHA PEL</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonated Asphalt</td>
<td></td>
<td>See Below</td>
<td>70-100%</td>
</tr>
<tr>
<td>Crystalline Silica</td>
<td>14808-60-7</td>
<td></td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

III. HAZARDS IDENTIFICATION

Hazard Data: Product may irritate eyes, skin, mucous membranes and upper respiratory system with overexposure. Prolonged inhalation (chronic) of dust may result in lung damage. Low concentrations of crystalline silica (SiO2) in the form of quartz, cristobalite or tridymite may be present.

The OSHA Permissible Exposure Limits from Table Z-3 Mineral Dusts are:
Crystalline Silica

- Quartz (Respirable): 10 mg/m3
- Quartz (Total Dust): 30 mg/m3

Inhalation:
Breathing dust may cause irritation of the nose, throat and respiratory passages. Breathing dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also cause silicosis.
HAZARDS IDENTIFICATION CONTINUED

Cancer Status: The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1 – carcinogenic to humans). The National Toxicology Program (NTP) classified respirable crystalline silica as “known to be a human carcinogen”. The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

Skin Contact: May be irritating to the skin with prolonged contact.

Eye Contact: May cause irritation to the eyes and could cause prolonged impairment of vision.

Ingestion: Not anticipated route of exposure. If ingested may be irritating to mouth, throat and stomach.

Chronic Health Effects
See Inhalation subsection above.

Medical Conditions Aggravated by Exposure
Emphysema, asthma, bronchitis or other respiratory problems.

IV. FIRST AID MEASURES

Inhalation:
Remove person to fresh air. Get medical attention for any breathing difficulty.

Skin Contact:
Wash exposed area with soap and water. Remove contaminated clothing and wash before reuse. Get medical advice if irritation develops.

Eye Contact:
Wash thoroughly with large amounts of running water for at least 15 minutes. Remove contact lenses if worn. Get medical advice if irritation develops.

Ingestion:
If large amounts were ingested, give water to drink, do not induce vomiting and get medical advice.

Advice to Physicians:
Treat symptomatically.

V. FIRE FIGHTING MEASURES

Flash Point/Range: Not Applicable

Flammability Limits: Not Applicable

Fire Extinguishing Media: Water, carbon dioxide, dry powder or foam

Unusual Fire and Explosion Hazard: Airborne dust concentrations may create a dust explosion hazard.
VI. ACCIDENTAL RELEASE MEASURES

**Release or Spill:** Avoid creating dusty conditions. Collect and place in suitable container for reuse or disposal.

**Personal Precautions:** Avoid breathing dust. Wear appropriate protective equipment.

**Environmental Precautions:** None known.

VII. HANDLING AND STORAGE

**Handling:** This product may contain crystalline silica. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear NIOSH approved respirator or equivalent when using this product. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary.

**Storage:** Store in a cool dry place with adequate ventilation. Keep away from oxidizing agents and ignitions sources, heat and open flames. Use good housekeeping in storage and work areas to prevent accumulation of dust.

VIII. EXPOSURE CONTROL/PERSONAL PROTECTION

**Airborne Exposure Limits** See Section III

**Ventilation Requirements:** A system of local and/or general exhaust is recommended if handled in a confined area to control below recommended exposure levels.

**Respiratory Protection:** Use NIOSH approved nuisance dust respirator. Use NIOSH approved mechanical filter respirator when dust levels exceed applicable exposure limits.

**Skin Protection:** Wear long sleeved clothing and work gloves.

**Eye Protection:** Wear safety glasses with side shields. Maintain eye wash station in work area.

**Other Protection Equipment/Clothing:** As appropriate for work area.

IX. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Dark Brown to Black</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>8-10</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.2-1.5</td>
</tr>
<tr>
<td>Boiling Range/Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosion Limits (%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate (butyl acetate=1)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
X. STABILITY AND REACTIVITY

**Stability:** Stable under normal conditions of use and storage.

**Materials to Avoid:** Excessive heat, ignition sources, and strong oxidizers.

**Hazardous Polymerization:** Will not occur.

**Hazardous Decomposition:** Sulfur oxides and carbon oxides.

XI. TOXICOLOGICAL INFORMATION

No acute toxicity data is available for product or components. Crystalline silica is listed as carcinogen on NTP, IARC or OSHA.

XII. ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to be toxic to aquatic organisms. This product is not expected to be readily biodegradable.

XIII. DISPOSAL

Dispose of material in accordance with all local, state, and federal regulations.

XIV. TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>UN Proper Shipping Name</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Label</td>
<td>None required</td>
</tr>
<tr>
<td>UN Identification Number</td>
<td>None</td>
</tr>
<tr>
<td>Hazardous Ingredients</td>
<td>None</td>
</tr>
<tr>
<td>Placards</td>
<td>None</td>
</tr>
<tr>
<td>Reportable Quantity</td>
<td>None</td>
</tr>
</tbody>
</table>

XV. REGULATORY INFORMATION

TSCA Listed: Yes

SARA Title III Section 302: No

SARA Title III Section 311/312: Delayed/Chronic Health Hazard

SARA Title III Section 313: Does not contain chemical listed in 313 at or above deminimis concentration.
XVI. OTHER INFORMATION

NFPA Hazard Codes: Health 1; Flammability 1; Reactivity 0
Ratings based on NPFA

Abbreviations
N/A: Denotes no applicable information found or available
CAS#: Chemical Abstracts Service Number
ACGIH: American Conference of Governmental Industrial Hygienists
OSHA: Occupational Safety and Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
NTP: National Toxicology Program
IARC: International Agency for Research on Cancer

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