I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: NOV Pac R™
Generic Description: Polyanionic Carboxymethyl Cellulose

Supplier:

NOV FluidControl
4310 N Sam Houston Parkway East
Houston, Texas 77032 USA
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>Polyanionic Cellulose</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

III. HAZARDS IDENTIFICATION

Hazard Data:

Eyes: May cause irritation to the eyes.
Skin: May be irritating to the skin with prolonged contact.
Ingestion: Not anticipated route of exposure.
Inhalation: May be irritating to the respiratory tract if inhaled. Nuisance dust 15 mg/m3 total dust.

Chronic Health Effects: None known. Not listed as a carcinogen on IARC, NTP or OSHA lists.
Medical Conditions Aggravated by Exposure: None known.

IV. FIRST AID MEASURES

Eyes: Wash eyes thoroughly with large amounts of running water for at least 15 minutes. Get medical advice if discomfort continues.
Skin: Wash exposed area thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Get medical advice if irritation develops.
V. FIRST AID MEASURES

Ingestion: Incidental ingestion should not cause gastrointestinal distress.

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

Advice to Physicians: Treat symptomatically.

VI. FIRE AND EXPLOSION DATA

Flash Point 431°F
Flammable Limits Not determined
Fire Extinguishing Media Water, carbon dioxide, dry chemical, foam.

Unusual Fire and Explosion Hazard
Particulate may accumulate static electricity. Dust explosion may occur when finely divided particles are mixed with air in the presence of an ignition source.

VII. ACCIDENTAL RELEASE MEASURES

Release or Spill
Contain, collect and place in suitable container for reuse or disposal. Avoid creating dust. Wet product may create a slipping hazard.

Personal Precautions
Avoid breathing dust. Use personal protective equipment identified in Section 8.

Environmental Precautions
Waste must be disposed of in accordance with all local, state, and federal law.

VIII. HANDLING AND STORAGE

Handling
Avoid contact with skin and eyes. Avoid generating or breathing dust. Product is slippery if wet. Use only with adequate ventilation. Wash thoroughly after handling.

Storage
Store in a cool, dry, ventilated area. Use good housekeeping in storage and work areas to prevent accumulation of dust. Keep away from oxidizing agents.

IX. EXPOSURE CONTROL/PERSONAL PROTECTION

Airborne Exposure Limits: OSHA Permissible Exposure Limit (PEL) 15 mg/m³ total dust, 5 mg/m³ respirable fraction for nuisance dusts.

Ventilation Requirements: A system of local and/or general exhaust is recommended if handled in a confined area.

Respiratory Protection: Use NIOSH approved nuisance dust respirator.

Skin Protection: Not normally necessary. Wear long sleeved clothing and work gloves to prevent repeated or prolonged skin contact.
EXPOSURE CONTROL/PERSONAL PROTECTION CONTINUED

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

Other Protection Equipment/Clothing
As appropriate for work area.

X. 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>Off White to Light Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>6.5-8.0 at (1% solution)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.5 - 1.6</td>
</tr>
<tr>
<td>Boiling Range/Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>430°F</td>
</tr>
<tr>
<td>Explosion Limits (%)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density</td>
<td>40-55 lb/cu.ft.</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</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>

XI. STABILITY AND REACTIVITY

- Stability: Stable under normal conditions of use and storage.
- Materials to Avoid: Excessive heat, sparks, flame and strong oxidizers.
- Hazardous Polymerization: Will not occur.
- Hazardous Decomposition: Oxides of carbon

XII. TOXICOLOGICAL INFORMATION

- Oral toxicity: LD50: 1260 mg/kg (rat).
- Cancer Status: Not listed as carcinogen by IARC, NTP or OSHA.

XIII. ECOLOGICAL INFORMATION

- No ecotoxicity data is available. This product is not expected to present an environmental hazard.
- Readily biodegradable.

XIV. DISPOSAL

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

XV. TRANSPORATION INFORMATION

- UN Proper Shipping Name: Not regulated
- UN Label: None
NOV Pac R™ Material Safety Data Sheet

TRANSPORTATION INFORMATION CONTINUED

<table>
<thead>
<tr>
<th>UN Identification Number</th>
<th>None</th>
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<tbody>
<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>
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</tbody>
</table>

XVI. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>TSCA Listed</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SARA Title III Section 302</td>
<td>No</td>
</tr>
<tr>
<td>SARA Title III Section 311/312</td>
<td>No</td>
</tr>
<tr>
<td>SARA Title III Section 313</td>
<td>No</td>
</tr>
<tr>
<td>Canada DSL</td>
<td>Yes</td>
</tr>
</tbody>
</table>

XVII. 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
NIOSH: National Institute for Occupational Safety & Health
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
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%

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For further information contact:

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