I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CLS

Date Revised: 7/2010

Chemical Name: CHROME LIGNOSULFONATE
Chemical Family: LIGNIN
Chemical Formula: UNKNOWN

Synonyms: CLS, UnoCal

NFPA Properties: Health: 1  Flammability: 2  Reactivity: 0  Contact: 0

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. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<table>
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<tr>
<th>Hazardous Components</th>
<th>TLV’s (ACGIH)</th>
<th>OTHER LIMITS</th>
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<tbody>
<tr>
<td></td>
<td>TWAPPM</td>
<td>TWA MG/M³</td>
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<tr>
<td>1. CHROME</td>
<td>0.5</td>
<td>NONE EST.</td>
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III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: N/A  Color: WHITE TO OFF-WHITE
Specific Gravity: 0.5  Odor: NONE
Vapor Pressure: NIL  Appearance: CRYSTALLINE POWDER
Percent Volatility: 2-10% MOISTURE  pH: 3-3.5
Vapor Density: N/A  Viscosity: N/A
Evaporation Rate: N/A  Activity: N/A
Solubility In Water: SOLUBLE  LC50: N/A
Melting Point °F: DECOMPOSES  LD50: N/A
IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRY CHEMICAL OR WATERSPRAY OR WATERFOG OR CO₂ OR FOAM OR SAND & EARTH
Flash Point °F: N/A
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: NORMAL
Unusual Fire & Explosion Hazards: DUST EXPLOSIONS MAY OCCUR WHEN FINELY DIVIDED PARTICLES ARE MIXED WITH AIR IN THE PRESENCE OF AN IGNITION SOURCE. AVOID EXCESSIVE ACCUMULATION OF DUST ON FLOORS, BEAMS, OR MACHINERY. IGNITION TEMPERATURES IS APPROXIMATELY 250-300°F.
Toxic Gases Produced: SULFUR DIOXIDE (SO₂) POSSIBLE

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES
Effects of Overexposure: PROLONGED EXPOSURE TO HIGH LEVELS OF DUST IN AIR MAY CAUSE SNEEZING, COUGHING, OR OTHER NUISANCE SYMPTOMS.
Toxicological Properties: NDA
Chronic & Acute Effects of Overexposure: NONE
Carcinogenicity: NTP: NO IARC Monographs: NO OSHA Regulated: NO

Emergency First Aid Procedures
Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.
Skin Contact: FLUSH WITH LARGE AMOUNTS OF SOAP & WATER FOR 15 MINUTES.
Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.
Ingestion: RINSE MOUTH, GIVE LARGE AMOUNTS OF WATER, INDUCE VOMITING, AND CALL A PHYSICIAN. NEVER GIVE ANYTHING MOUTH-TO-MOUTH TO AN UNCONSCIOUS PERSON.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR
Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE, SMOKE, FUMES
Conditions To Avoid: HEAT, HUMIDITY
Incompatibility and Materials to Avoid: STRONG OXIDIZING AGENTS, LITHIUM
VII. SPILL & DISPOSAL PROCEDURES

Steps To Be Taken in Case Material is Released or Spilled --- Procedures For Clean – Up: WASH AREA WITH WATER. SPILLS OR RELEASES OF THIS MATERIAL DO NOT CURRENTLY TRIGGER THE EMERGENCY RELEASE REPORTING REQUIREMENTS UNDER THE FEDERAL SUPERFUN AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA). STATE AND LOCAL LAWS MAY DIFFER FROM FEDERAL LAW. CONSULT CONSEL FOR FURTHER GUIDANCE ON YOUR RESPONSIBILITIES UNDER THES LAWS.

Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. (CONTAINS IRON AND TRIVALENT CHROMIUM)

Precautions To Be Taken In Handling & Storage: NONE

VIII. PROTECTIVE EQUIPMENT

Ventilation Type Required: MECHANICAL
Protective Gloves: RUBBER, RECOMMENDED
Respiratory Protection: WEAR A NIOSH APPROVED MASK IF CONCENTRATION IS TO EXCEED TLV
Other Protective Equipment: USE EXPLOSION PROOF EQUIPMENT FOR DUSTY CONDITIONS

IX. REGULATORY & TRANSPORTATION INFORMATION

US DOT Proper Shipping Name: “OIL – WELL TREATING COMPOUND”
US DOT Hazard Class: “NON-HAZARDOUS”
ID Number:
Unregulated By DOT:
Special Transportation Note:
Labels Required: NONE

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