

**Consolidated Oil Well Services, Inc.**  
**P.O. Box 884**  
**Chanute, KS 66720**

**MATERIAL SAFETY DATA SHEET**

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier : CR-180  
Chemical Name : Lignosulfonate Salt  
Chemical Family : Wood Chemicals  
Manufacturer : CESI Chemical (a Flotek Industries, Inc. company)  
: 1004 S. Plainsman Road, Marlow, OK 73055  
Emergency Phone : (405) 282-8510  
Prepared by : Denise Patterson  
Phone : (580) 658-6608  
Issue Date : 10/13/1993  
Revised Date : 02/24/2009

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient : This product does not contain any reportable hazardous components as defined in 29 CFR 1910. 1200

**3. HAZARDS IDENTIFICATION**

Human health hazards  
Acute health hazards : May cause allergic reaction in rare cases  
Chronic health hazards : None known  
Route(s) of entry : Eye, skin and inhalation  
Safety hazards : None known  
Environmental hazards : No information is available on the product.

**4. FIRST AID MEASURES**

Eye : Remove contact lenses at once. Immediately flush with copious amounts of water for at least 15 minutes while holding eyelids open. If irritation persists, seek medical attention.  
Skin : Wash affected area thoroughly with soap and water for at least 15 minutes or until product is removed. Remove contaminated clothing and launder before reuse. If irritation develops, seek medical attention.  
Inhalation : Remove to fresh air. If irritation is experienced, mouth and throat may be rinsed with water. Particles adhering to the nasal cavity may be rinsed / diluted with saline / plain water. If irritation or asthma-like symptoms persist, seek prompt medical attention.  
Ingestion : Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

**5. FIRE FIGHTING MEASURES**

Flash Point : Not applicable  
Lower Explosion Limit : Not applicable  
Upper Explosion limit : Not applicable  
Extinguishing Media : Use water spray, carbon dioxide, dry chemical, alcohol-type or universal-type foams.  
Protective equipment : NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and turnout gear.  
Hazardous combustion products : Sulfur dioxide, carbon dioxide and carbon monoxide

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions : Wear hand, eye, protective clothing and respiratory protective equipment to eliminate contact.  
General precautions : Eliminate ignition sources. Evacuate all non-essential personnel.  
Small spills : Same as for large spills.  
Large spills : Sweep up and scoop into containers for reuse or disposal. Avoid producing dust. Avoid entry of large amounts of product into sewers, natural waters and drinking water. Follow all local, state and federal regulations regarding the disposal of this material.

## 7. HANDLING AND STORAGE

- Handling : Avoid contact with eyes, skin and clothing. Avoid breathing dust. Use with adequate ventilation. Do not take internally. Wear appropriate protective clothing and equipment during handling. Wash thoroughly after handling. Remove contaminated clothing and laundry before reuse.
- Storage : Store in cool, dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Occupational exposure standards : Not established for the product.
- Hand protection : Nitrile rubber gloves.
- Eye protection : Safety goggles
- Respiratory protection : Dust mask or appropriate respiratory protection equipment.
- Engineering control measures : General (mechanical) room ventilation is expected to be satisfactory.
- Other : Emergency eye wash fountains and safety showers should be in the immediate vicinity of any potential exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Appearance : Powder
- Color : Brown
- Odor : Slight
- Specific Gravity : Not applicable
- Bulk Density : 0.37-0.56 g/ml
- Boiling Point : Not applicable
- Freezing Point : Not applicable
- Solubility in water : Complete
- pH : 8.0
- Percent Volatiles : 5.0 (water)
- Vapor Pressure : Not applicable

## 10. STABILITY AND REACTIVITY

- Stability : Stable
- Conditions to avoid : Creating dust
- Hazardous polymerization : Will not occur
- Hazardous decomposition products : Sulfur dioxide, carbon dioxide and carbon monoxide
- Incompatibility : Strong oxidizing agents

## 11. TOXICOLOGICAL INFORMATION

- Acute Effects
- Eye : No hazardous effects expected.
- Skin : No hazardous effects expected.
- Inhalation : No hazardous effects expected.
- Ingestion : No hazardous effects expected.
- Chronic Effects : None known
- Carcinogenicity : None of the ingredients are listed in NTP, IARC monographs or OSHA regulated.

## 12. ECOLOGICAL INFORMATION

- Environmental Fate : Product is expected to be readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

- Waste disposal : Recycle if possible. Otherwise dispose to licensed disposal contractor.
- Product disposal : Recycle if possible. Otherwise comply with all local, state and federal regulations.
- Container disposal : Comply with all local, state and federal regulations.

#### 14. TRANSPORT INFORMATION

##### LAND (D.O.T.)

Shipping Name : Not Regulated  
Label(s) required : None  
Emergency Phone : (405) 282-8510

##### AIR (IATA)

Shipping Name : Not Regulated  
Label(s) required : None

##### SEA (IMDG)

Shipping Name : Not Regulated  
Label(s) required : None

#### 15. REGULATORY INFORMATION

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

OSHA Classification : Not Regulated

TSCA (USA) : All components listed.  
DSL (Canada) : All components listed.

SARA Title III  
Section 302 : Extremely Hazardous Substances (40CFR355): This product does not contain ingredients listed in Appendix A and B.

Sections 311/312  
Immediate (acute) health hazard : YES  
Delayed (chronic) health hazard : NO  
Fire hazard : NO  
Sudden Release of Pressure Hazard : NO  
Reactive Hazard : NO

Section 313 Reportable Quantities : None

CERCLA : If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling (800) 424-8802.

Reportable Quantity : Not determined for the product.

#### 16. OTHER INFORMATION

NFPA 704  
Health : 1  
Fire : 1  
Reactivity : 0  
Special : None

HMIS  
Health : 1  
Fire : 1  
Reactivity : 0  
Special : None

Disclaimer of Liability : The information contained in this MSDS was obtained from sources that we believe are reliable. However, the information is without any warranty, express or implied, regarding correctness. The methods of handling, storage, use and disposal of the product are beyond our control and may be outside the scope of our knowledge. For these reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.