Section 1: Product & Company Identification

Product Name: CS-500
Product Use: Corrosion/ Scale Inhibitor Combo
Chemical Name and/or Family: Blend

Company Information:

<table>
<thead>
<tr>
<th>Plant Facility</th>
<th>Corporate Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoilChem, LLC</td>
<td>CoilChem, LLC</td>
</tr>
<tr>
<td>3928 Hwy 80</td>
<td>2103 East Ladd Rd</td>
</tr>
<tr>
<td>Rayville, LA 71269</td>
<td>Washington, OK 73093</td>
</tr>
<tr>
<td>(318) 728-6565</td>
<td>(405) 392-2505</td>
</tr>
</tbody>
</table>

Emergency Information: Contact Infotrac: 1-800-535-5053
S.D.S. Revision Date: January 8, 2015

Section 2: Hazards Identification

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous. One or more component is being claimed as a trade secret under OSHA’s Hazard Communication Rule, 29 CFR 1910.1200. Consult section 15 (Regulatory Information) for the nature of the hazard(s).

Section 3: Composition/ Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS Number</th>
<th>Approximate Wt. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol</td>
<td>107-21-1</td>
<td>1.6</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>Confidential</td>
</tr>
</tbody>
</table>

CAUTION! Contains ethylene glycol. May be harmful if inhaled. Use with adequate ventilation. Do not take internally. Avoid prolonged or repeated breathing of vapor. Avoid contact with skin, eyes or clothing. Keep container closed when not in use. Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

DANGER! May cause irritation to skin and eyes. Prolonged inhalation of vapor may be harmful. Do not use, store, spill or pour near heat, sparks or open flame. Use with adequate ventilation. Avoid prolonged or repeated breathing of vapor. Avoid contact with skin, eyes or clothing.

Section 4: First-Aid Measures

EYES: Remove victim from exposure and into fresh air. Immediately flush with water for at least 15 minutes while holding eyelids open. Call a physician at once.

SKIN: Remove contaminated clothing. Immediately wash exposed area with soap and water for at least 15 minutes. For a large splash, flood body under a shower. If symptoms persist, seek medical attention. Launder clothes before reuse.
INGESTION: If victim is conscious and alert, induce vomiting by giving syrup of ipecac or by gently stimulating victim's uvula. Give water. Call a physician at once. If victim is drowsy or unconscious, do not induce vomiting or give anything by mouth; place victim on the left side with the head down. If possible, do not leave victim unattended.

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. Treat symptoms. Keep victim warm and quiet. Seek immediate medical attention.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

Note to Physicians
This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, use three to four 1-ounce oral “shots” of 86-proof or higher whiskey before or during transport to the hospital. Hemodialysis effectively removes ethylene glycol and its metabolites from the body. Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases coma, convulsions and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement and congestive failure. The final stage occurs 24-72 hours post-exposure and is characterized by renal failure ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis.

Section 5: Fire Fighting Measures

Flash Point: > 230°F
Lower Explosive Limit: N/D
Upper Explosive Limit: N/D

Extinguishing Media: Based on NFPA guide, use water fog, dry chemical, foam, carbon dioxide or other extinguishing agent suitable for Class B fires. Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drench the burning material.

Unusual Fire And Explosion Hazards: May evolve carbon dioxide and carbon monoxide under fire conditions. Containers exposed in a fire should be cooled with water to prevent vapor pressure buildup leading to rupture.

Section 6: Accidental Release Measures

In case of transportation accident, call the emergency response phone number: 800-535-5053

Spill Control And Recovery:
Small Spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large Spills: Dike and prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

Prevent flow/discharge into lakes, ponds, streams, waterways or public water supplies.
Section 7: Handling & Storage

Precautionary Handling: Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take emergency first aid action shown in this Safety Data Sheet.

Storage: Store in a dry, well-ventilated area. Keep container closed when not in use. Follow safe warehousing practices.

Section 8: Exposure Controls/ Personal Protection

Primary Route(s) Of Exposure: Eye, Ingestion, Inhalation

Eye Contact: Irritating to the eyes. Symptoms may include stinging, tearing, redness and swelling.

Skin Contact: Exposure may cause mild skin irritation. Symptoms may include redness and burning. Skin adsorption possible, but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

Ingestion: Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. See note to physician, above.

Inhalation: Short-term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects. Breathing large amounts in excess of the recommended exposure limits can be harmful, causing nausea, irritation, dizziness, light-headedness, vomiting, fatigue, headache or unconsciousness depending on the length of exposure and the first aid action given.

Symptoms of Exposure: In addition to symptoms listed above, excessive exposure can cause cyanosis (characterized by bluish discoloration of the skin and nails), pulmonary edema (swelling and collection of fluid in the lungs), kidney damage, liver damage, convulsions, coma and death if not properly treated.

Aggravation of Existing Conditions: A review of available data indicates that ethylene glycol may aggravate pre-existing disorders of the kidney and liver.

Personal Protection:

Respiratory Protection: If it is possible to generate significant levels of vapors or mists, a NIOSH approved or equivalent respirator is recommended. For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a positive pressure, self-contained breathing apparatus is recommended.

Ventilation: General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors, mists or aerosols may be released.

Protective Equipment: Wear impermeable gloves, boots, and apron and face shield with chemical splash goggles. A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower are recommended. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.
Section 9: Physical & Chemical Properties

Appearance: Amber to Clear Yellow Liquid
Odor: Surfactant/ Soapy
Specific Gravity: 1.01-1.03
Density: 8.40-8.60
pH (neat): 6.5 – 7.5
Viscosity: 4 cst @ 100°F
Solubility: Water Soluble
Pour Point: -20°F
Boiling Point: 212°F
Flash Point: >230°F TCC
Vapor Pressure: N/D
Vapor Density: N/D
Evaporation Rate: N/D

Note: These physical properties are typical values for this product and not specifications.

Section 10: Stability & Reactivity

Incompatibility: Avoid contact with strong oxidizers (eg. Chlorine, peroxides, chromates, nitric acid, per chlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

Thermal Decomposition Products: In the event of combustion CO, CO₂ and/or NOₓ may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

Section 11: Toxicological Information

Toxicity Studies: No toxicity studies have been conducted on this product. However, this product contains ethylene glycol, which has been proven to cause liver, kidney and brain damage in humans as a result of overexposure. Ethylene glycol may also cause birth defects in humans based on positive test results with laboratory animals. This material is not listed as a carcinogen by IARC, NTP or OSHA.

Section 12: Ecological Information

If released into the environment, see CERCLA in Section 15 (Regulatory Information).

Section 13: Disposal Considerations

Waste Disposal Method: This product, in its original form, is not considered to be a hazardous waste. However, contact with other materials may change the characteristics of the waste product. Re-evaluate all waste(s) and follow applicable Federal, State and Local Regulations for disposal.

EPA Hazard Waste Codes: None
Section 14: Transportation Information

The proper shipping name and/or hazard class for this product may vary according to packaging, properties and mode of transportation. Typical proper shipping names for this product are:

- **DOT Regulations**: Not D.O.T. Regulated
- **UN/ID Number**: None
- **Hazard Class**: Not D.O.T. Regulated
- **Flash Point**: 240°F
- **Hazardous Components**: Ethylene Glycol
- **RQ lbs**: 26,020
- **RQ Component(s)**: Ethylene Glycol

Section 15: Regulatory Information

The following regulations apply to this product:

**Federal Regulations:**

**OSHA’s Hazard Communication Rule, 219 CFR 1910.1200:**
Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

- **Ethylene Glycol** – Systemic effects (refer to Section 5)
  - Ethylene Glycol = 100 mg/m³ Ceiling as an aerosol  ACGIH/TLV
  - Ethylene Glycol = 50 ppm  OSAH/PEL

- **Isopropanol** – Flammable
  - Isopropanol = TWA 400 ppm, STEL 500 ppm  ACGIH/TLV
  - Isopropanol = TWA 400 ppm, STEL 500 ppm  OSHA/PEL

**CERCLA/Superfund, 40 CFR 117, 302:**
This product contains ethylene glycol, a Reportable Quantity (RQ) substance and if 26,020 pounds of the product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D.C. at 1-800-424-8802.

**SARA/Superfund Amendments And Reauthorization Act Of 1986**
(Title III) – Sections 302, 311, 312 and 313:

**Section 302 – Extremely Hazardous Substance (40 CFR 355):**
This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance
Section 313 – List Of Toxic Chemicals (40 CFR 372):
This product contains the following ingredient(s), (with CAS# and % range) which appear(s) on the List Of Toxic Chemicals:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>% Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol</td>
<td>102-21-1</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Toxic Substance Control Act (TSCA) (40 CFR 710):
The chemical ingredients in this product are on the 8 (b) inventory list.

Resource Conservation Recovery Act (RCRA), 40 CFR 261 Subpart C & D:
Consult Section 11 for RCRA classification.

State Regulations:

California Proposition 65:
This product contains 1.6% ethylene glycol. Ethylene glycol contains the following substances known to the state of California to cause cancer:

- 1, 4-Dioxane
- Ethylene Oxide
- Acetaldehyde

State Right to Know Laws:
This product is regulated in those states using the TLV for ethylene glycol (1,2-ethanediol) as a criteria for listing.

Section 16: Other Information

This product’s safety information is provided to assist our customers in assessing compliance with health, safety and environmental regulations. The information contained herein, is based on data available to us and is believed to be accurate, although no guarantee or warranty is provided by this company in this respect. Since the use of this product is within the exclusive control of the user, it is the user’s obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal regulations concerning the product. All materials in this product are produced in compliance with Public Law 94-469 (also known as the “Toxic Substances Control Act” of 1976).