SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier__
Product name WS-140E
Other means of identification__
Product code 3235Y
Synonyms Water And Wastewater Treatment Coagulant/Flocculant

Recommended use of the chemical and restrictions on use__
Recommended use [RU] No information available
Uses advised against No information available

Details of the supplier of the safety data sheet__
Supplier Anderson Chemical Company
325 South Davis Ave.
Litchfield, MN 55355
+1-320-693-2477
Hours: Monday-Friday 8:00-5:00 CST (Central Standard Time)

Emergency telephone number__
24 Hour Emergency Phone Number CHEMTREC: (800) 424-9300

Webpage Accmnn.com

2. HAZARDS IDENTIFICATION

Classification__
OSHA Regulatory Status This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Corrosive to metals</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements__

EMERGENCY OVERVIEW__
Physical state | Color | Appearance | Odor
---|---|---|---
liquid | colorless to amber | clear to slightly hazy | slight amine

**WARNING**

**Hazard statements**
- Causes skin irritation
- Causes serious eye irritation
- May be corrosive to metals

**Precautionary Statements - Prevention**
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Keep only in original container

**Precautionary Statements - Response**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention
- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation occurs: Get medical advice/attention
- Take off contaminated clothing and wash before reuse
- Absorb spillage to prevent material damage

**Precautionary Statements - Storage**
- Store in corrosive resistant container with a resistant inner liner

**Other information**
- May be harmful in contact with skin
- Harmful to aquatic life with long lasting effects

**Unknown acute toxicity**
- 9% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>weight-%</th>
<th>TRADE SECRET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret Ingredient</td>
<td>PROPRIETARY</td>
<td>35 - 45%</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST AID MEASURES

**First Aid Measures**

**Eye contact**
- Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Get medical attention if irritation develops and persists.
Skin contact
Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Ingestion
Seek medical attention immediately. Give large amounts of water to drink. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person.

Inhalation
Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Most important symptoms and effects, both acute and delayed

Acute effects
Possible eye, skin and respiratory tract irritation.

Chronic effects
May aggravate existing skin, eye, and lung conditions. Persons with kidney disorders have an increased risk from exposure based on general information found on aluminum salts.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Water Spray, Carbon Dioxide, Foam, Dry Chemical.

Extinguishing media which must not be used for safety reasons
No information available

Special hazards arising from the substance or mixture

Special Hazard
May produce hazardous fumes or hazardous decomposition products.

Advice for firefighters

Firefighting measures
Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container; cool exposed containers with water spray. Use self-contained breathing apparatus in confined areas; avoid breathing mist or spray.

Special protective equipment for firefighters
Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

Explosion data

Sensitivity to Mechanical Impact
None.

Sensitivity to Static Discharge
None.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Wear adequate personal protective clothing and equipment. Approved breathing apparatus may be necessary.

**Environmental precautions**
Do not allow liquid to enter streams or waterways.

**Methods and material for containment and cleaning up**

**Methods for containment**
Prevent further leakage or spillage if safe to do so. Build dikes as necessary to contain flow of large spills.

**Methods for cleaning up**
Clear spills immediately. For small spills, use soda ash or lime to neutralize, an inert material to absorb, or wash product to a chemical sewer. Place contaminated materials into containers and store in a safe place to await proper disposal. Caution: Use of soda ash or lime may generate carbon dioxide gas. Provide adequate ventilation to spill area.

7. HANDLING AND STORAGE

Precautions for safe handling

**Advice on safe handling**
Keep container closed when not in use
Keep away from heat and open flame.
Avoid contact with eyes, skin and clothing
Wear chemical splash goggles, gloves, and protective clothing when handling.
Wash thoroughly after handling
Avoid breathing vapor or mist
Use with adequate ventilation and employ respiratory protection where mist or spray may be generated.
FOR INDUSTRIAL USE ONLY.

**Conditions for safe storage, including any incompatibilities**

**Technical measures and storage conditions**
Keep container tightly closed when not in use.
Store in a cool, dry place away from direct heat.
Do not store in unlined metal containers.
Product may slowly corrode iron, brass, copper, aluminum, mild steel, and stainless steel.

**Incompatible products**
Alkalis.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

**Exposure Guidelines**
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Appropriate engineering controls

**Engineering controls**
Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment

**Eye/face Protection**
Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

**Hand Protection**
Appropriate chemical resistant gloves should be worn.

**Skin and body protection**
Standard work clothing and work shoes.

**Respiratory protection**
If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

**Other personal protection data**
Eyewash fountains and safety showers must be easily accessible.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks / Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>colorless to amber</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>clear to slightly hazy</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>slight amine</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>3.0 - 4.5</td>
<td>as is</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Not applicable</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Not applicable</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>
Vapor density
Specific gravity
Solubility (water)
Solubility in other solvents
Partition coefficient: n-octanol/water
Autoignition temperature
Decomposition temperature
Kinematic viscosity
Dynamic viscosity

Other information

Density
Bulk Density
Explosive properties
Oxidizing properties
Softening point
Molecular weight
Volatile organic compounds (VOCs) content
Percent Volatile, wt.%

10. STABILITY AND REACTIVITY

Reactivity

Reactivity
No data available.

Chemical stability

Chemical stability
Stable under normal conditions of handling, use and transportation.

Possibility of hazardous reactions

Possibility of hazardous reactions
None under normal processing.

Hazardous polymerization
Not anticipated under normal or recommended handling and storage conditions.

Conditions to avoid

Conditions to avoid
None known.

Incompatible materials
Materials to avoid
Alkalis.

Hazardous decomposition products

Hazardous decomposition products
Thermal decomposition may release toxic and/or hazardous gases such as aluminum, Cl₂, and HCl.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
May cause moderate eye irritation that can become severe with prolonged contact. Prolonged exposure to Aluminum salts may cause conjunctivitis.

Skin contact
May be harmful in contact with skin. Prolonged and/or repeated contact may cause skin irritation.

Ingestion
May cause irritation of the mouth, throat and stomach. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Inhalation
Inhalation of mist or vapor may cause respiratory tract irritation.

Acute toxicity - Product Information

Oral LD50  No information available
Dermal LD50  No information available
Inhalation LC50  No information available

Acute toxicity - Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>weight-%</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret Ingredient</td>
<td>35 - 45%</td>
<td>= 9187 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>--</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Irritating to skin

Serious eye damage/eye irritation
Causes serious eye irritation

Sensitization
No information available

Germ cell mutagenicity
No information available
Carcinogenicity
This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

Reproductive toxicity
No information available

Specific target organ toxicity - Single exposure
No information available.

Specific target organ toxicity - Repeated exposure
No information available.

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information

* 9% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

<table>
<thead>
<tr>
<th>ATEmix (oral)</th>
<th>ATEmix (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22245 mg/kg</td>
<td>4847 mg/kg</td>
</tr>
</tbody>
</table>

Other information
Data is based on a product of similar composition and conclusions are drawn from sources other than direct testing.

12. ECOLOGICAL INFORMATION

Ecotoxicity

* Harmful to aquatic life with long lasting effects

Acute aquatic toxicity - Product Information

<table>
<thead>
<tr>
<th>Fish</th>
<th>No information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crustacea</td>
<td>No information available</td>
</tr>
<tr>
<td>Algae/aquatic plants</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Acute aquatic toxicity - Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>weight-%</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret Ingredient</td>
<td>35 - 45%</td>
<td>--</td>
<td>LC50 (96 h static) 100 - 500 mg/L (Brachydano rerio)</td>
<td>--</td>
</tr>
</tbody>
</table>

Persistence and degradability

Persistence and degradability
No information available

Bioaccumulative potential

Bioaccumulative potential
No information available
Mobility

No information available

Results of PBT and vPvB assessment

No information available

Other adverse effects

No other ecological studies have been carried out on this product.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulations.

Contaminated packaging
Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT
NOT APPLICABLE, NOT RESTRICTED.
This product is excepted from DOT regulations under 49 CFR 173.154(d) when shipped by road or railway. The product exception is referenced in 49 CFR 172.101 Table. Packaging material must not be aluminum, steel or be degraded by this product

ICAO/IATA
Regulated

UN number
UN3264

Proper shipping name
Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)

Hazard class
8

Packing group
III

ERG Code
8L

IMDG
Regulated

UN number
UN3264

Proper shipping name
Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)

Hazard class
8

Packing group
III

EmS
F-A;S-B

Harmonized Tariff Number
3824.90

15. REGULATORY INFORMATION

International Inventories
### TSCA (United States)
All ingredients are on the inventory or exempt from listing

### Australia (AICS)
All ingredients are on the inventory or exempt from listing

### Canada (DSL)
All ingredients are on the inventory or exempt from listing

### Canada (NDSL)
None of the ingredients are on the inventory.

### China (IECSC)
All ingredients are on the inventory or exempt from listing

### EINECS (European Inventory of Existing Chemical Substances)
All ingredients are on the inventory or exempt from listing

### ELINCS (European List of Notified Chemical Substances)
None of the ingredients are on the inventory.

### ENCS (Japan)
All ingredients are on the inventory or exempt from listing

### South Korea (KECL)
All ingredients are on the inventory or exempt from listing

### Philippines (PICCS)
All ingredients are on the inventory or exempt from listing

**Legend**
- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **AICS** - Australian Inventory of Chemical Substances
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- **IECSC** - China Inventory of Existing Chemical Substances
- **EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- **ENCS** - Japan Existing and New Chemical Substances
- **KECL** - Korean Existing and Evaluated Chemical Substances
- **PICCS** - Philippines Inventory of Chemicals and Chemical Substances

### U.S. Federal Regulations

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**SARA 311/312 Hazard Categories**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive hazard</td>
<td>No</td>
</tr>
</tbody>
</table>
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

U.S. State Regulations

California Proposition 65
This product may contain traces of a substance(s) known to the State of California to cause cancer and/or reproductive toxicity.

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- 1</td>
<td>- 0</td>
<td>- 0</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazard</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- 1</td>
<td>- 0</td>
<td>- 0</td>
<td>- B</td>
</tr>
</tbody>
</table>

Product code 3235Y
Revision date 2015-04-20
Revision number 1

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet