1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Date Revised: May 26, 2015

Product Name: ALAR One-Step 101

Mixture: Five Non-Hazardous Chemicals:

1. Polymer: 2 @ CAS #69418-26-4
   1 @ CAS #25085-C2-3
   NSF: Drinking Water Certified

2. Aluminum Sulfate: CAS #10043-01-3
   NSF: Drinking Water Certified

3. Bentonite: CAS #1302-78-9
   GRAS by FDA

Certifications Are: FDA, KOSHER, NSF

Designation By: FDA as GRAS

Use: Wastewater Treatment Chemistry

Used As A: Coagulant, flocculent, precipitant, pH

Added As: One-Step Wastewater Treatment

To Remove: Toxins: Solids, metals, color, BOD, COD, oil

Appearance: Dry – White/Gray Granules

Supplier: Alar Engineering Corporation
9651 W. 196th Street
Mokena, IL 60448

Phone: 708/479-6100
Emergency Phone: (24 hours) CHEMTREC: 1-800/424-9300
CANUTEC: 1-613-996-6666

2. HAZARDS IDENTIFICATION

GHS HAZARD:

<table>
<thead>
<tr>
<th>HAZARD CLASSES</th>
<th>HAZARD CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity single exposure</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

SIGNAL WORD: Warning
ALAR ONE-STEP 101

PICTOGRAM: SEE SECTION 16 FOR ALL PICTOGRAMS

HAZARD STATEMENTS:

PHYSICAL HAZARDS:
No Data

HEALTH HAZARDS:
H315: Causes skin mild irritation
H319: Causes serious eye damage
H335: May cause respiratory irritation

PRECAUTIONARY DATA:
P102: Keep out of reach of children
P202: Do not handle until all safety precautions have been read and understood
P261: Avoid breathing dust
P264: Wash hands thoroughly after use
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear protective gloves, clothing, and eye protection

RESPONSE DATA:
P301 + P310 + P311: IF SWALLOWED: DO NOT induce vomiting – seek medical attention.
P303 + P361 + P353: IF ON SKIN – take off all contaminated clothing immediately. Rinse skin with water.
P304 + P340: IF INHALED – remove to fresh air and keep comfortable for breathing
P305 + P351: IF IN EYES – rinse cautiously with water for at least 15 minutes.

STORAGE DATA:
See Section 7: HANDLING AND STORAGE

DISPOSAL DATA:
P501: Dispose of content and/or container in accordance with local, regional, national, or international regulations.
3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURES: PRODUCT IS MADE OF THREE PRODUCTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer</td>
<td>(CAS) 69418-26-4</td>
<td>2% - 10%</td>
<td>H315 Causes mild skin irritation</td>
</tr>
<tr>
<td></td>
<td>(CAS) 25085-02-3</td>
<td></td>
<td>H318 Causes serious eye damage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H335 May cause respiratory irritation</td>
</tr>
<tr>
<td>Aluminum Sulfate</td>
<td>(CAS) 10043-01-3</td>
<td>25% - 50%</td>
<td></td>
</tr>
<tr>
<td>Bentonite</td>
<td>(CAS) 1302-78-9</td>
<td>20% - 80%</td>
<td>H315 Causes mild skin irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H318 Causes serious eye damage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H335 May cause respiratory irritation</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

INHALATION:
Move to fresh air. No hazards which require special first air measures.

SKIN:
Wash off with soap and plenty of water. Get medical attention if irritation develops.

EYE:
Rinse with plenty of water, also under the eyelids, for at least 15 minutes.
CONSULT A PHYSICIAN.

INJECTION:
Rinse mouth with water. DO NOT INDUCE VOMITING.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:
CONSULT A PHYSICIAN

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
CONSULT A PHYSICIAN

5. FIRE FIGHTING

EXTINGUISHING MEDIA:

SUITABLE EXTINGUISHING MEDIA:
Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

UNSUITABLE EXTINGUISHING MEDIA:
None.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

HAZARDOUS DECOMPOSITION:
No Data.

THERMAL DECOMPOSITION MAY PRODUCE:
Nitrogen oxides (NOₓ), carbon oxides (COₓ).

HYDROGEN CYANIDE (HYDROCYANIC ACID) may be produced in the event of combustion in an oxygen deficient atmosphere.
ALAR ONE-STEP 101

ADVICE FOR FIRE FIGHTERS:

PROTECTIVE MEASURES:
Wear self-contained breathing apparatus.

OTHER INFORMATION:
**CAUTION – SLIPPERY** when surfaces GET WET.

TREATMENT CHEMISTRY:
WON'T BURN – FLAME.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION:
Use protective equipment and emergency procedures.
Aqueous solutions or powders that become wet render surfaces extremely slippery.

WEAR PROTECTIVE EQUIPMENT:
See Section 8: Exposure Controls – Personal Protection

EMERGENCY PROCEDURE:
Keep people away from spills and leaks.

ENVIRONMENTAL PRECAUTIONS:
As with all chemical products, do not flush into surface water.

METHOD AND MATERIALS FOR CONTAINMENT AND CLEAN UP:

SMALL SPILLS:
Do not flush with water.
Clean up promptly by sweeping or vacuuming.
Keep in suitable, closed containers for disposal.
After cleaning, flush away traces with water.

LARGE SPILLS:
Do not flush with water. Clean up promptly by sweeping or vacuuming.
Keep in suitable, closed containers for disposal.
After cleaning, flush away traces with water.

RESIDUE:
Flush away with large quantities of water.

REFERENCE TO OTHER SECTIONS:
Section 7: Handling and storage
Section 8: Exposure controls/personal protection
Section 9: Physical and chemical properties
Section 13: Disposal considerations
7. HANDLING AND STORAGE

PRECAUTIONS:
- Granules/powders that become wet render surfaces extremely slippery.
- Use personal protection equipment

CONDITIONS FOR SAFE STORAGE:
- Including any incompatibilities
- Keep in a dry place
- Keep container closed when not in use
- Incompatible with oxidizing agents

SPECIFIC END USE:
- Wastewater treatment

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

CONTROL PARAMETERS:
- Occupational exposure limits: Not set.

EXPOSURE CONTROLS:
- Use proper engineering procedures.
- Use of natural ventilation is adequate in absence of dusts.
- Use individual protection measures, such as personal protective equipment:

EYE/FACE PROTECTION:
- Safety glasses with side shields.

SKIN PROTECTION:
- Work clothes protecting arms, legs, and body.

HAND PROTECTION:
- PVC or other plastic material gloves.

RESPIRATORY PROTECTION:
- No personal respiratory protective equipment normally required.
- Dust safety masks recommended where working powder concentration is more than 10 mg/m³.

ADDITIONAL ADVICE:
- Handle in accordance with good industrial hygiene and safety practice.

ENVIRONMENTAL EXPOSURE CONTROLS:
- Do not allow uncontrolled discharge of product into the environment.
- Do not flush into surface water.
9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION: PHYSICAL – MIXTURE AND POLYMER CHEMICAL PROPERTIES:

APPEARANCE: Granular solid, white, gray, tan.
ODOR: None.
ODOR THRESHOLD: Not applicable.
pH: 5 – 9 @ 5 g/L
MELTING POINT/FREEZING POINT: Not applicable.
INITIAL BOILING POINT AND BOILING RANGE: Not applicable.
FLASH POINT: Not applicable.
FLAMMABILITY (SOLID, GAS): Not applicable.
UPPER – LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: Not expected to create explosive atmospheres.
VAPOR PRESSURE/VAPOR DENSITY: Not applicable.
RELATIVE DENSITY: 0.6 – 0.9
SOLUBILITY: Soluble in water.
AUTOIGNITION TEMPERATURE: Does not self-ignite.
DECOMPOSITION TEMPERATURE: >150° C
EXPLOSIVE PROPERTIES: Non-flammable to ignition sources.

10. STABILITY AND REACTIVITY

REACTIVITY:
None known.

CHEMICAL STABILITY:
Stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:
Oxidizing agents may cause exothermic reactions.

CONDITIONS TO AVOID:
None known.

INCOMPATIBLE MATERIALS:
Incompatible with oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition may produce: Nitrogen oxides (NOₓ), carbon oxides (COₓ), hydrogen cyanide (hydrocyanic acid).
11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY: LD50/oral/rat > 5000 mg/kg
ACUTE DERMAL TOXICITY: LD50/dermal/rat > 5000 mg/kg
ACUTE INHALATION TOXICITY: Not expected to be toxic by inhalation
SKIN CORROSION/IRRITATION: Not irritating.
SERIOUS EYE DAMAGE/EYE IRRITATION: Not irritating.
RESPIRATORY/SKIN SENSITIZATION: Not sensitizing.
MUTAGENICITY: Not mutagenic.
CARCINOGENICITY: Not carcinogenic.
REPRODUCTIVE TOXICITY: Not toxic for reproduction.
STOT – SINGLE EXPOSURE: No known effects.
STOT – REPEATED EXPOSURE: No known effects.
ASPIRATION HAZARD: No hazards resulting from the material as supplied.

12. ECOLOGICAL INFORMATION

TOXICITY: Not available.
PERSISTENCE: Information on the product as supplied: Not readily biodegradable.
Degradation:
BIOACCUMULATIVE POTENTIAL: Information on the product as supplied: Not bioaccumulating.
MOBILITY IN SOIL: Information on the product as supplied: None.
OTHER ADVERSE EFFECTS: None known.
CAN BE LANDFILLED OR INCINERATED: When in compliance with local regulations.

13. DISPOSAL CONSIDERATIONS

WASTE PRODUCTS TREATMENT (as a refuse – waste):
The contaminated packaging and chemical product or residues/unused can be disposed in landfills following national and local regulations. Dispose in such a way to avoid dust generation.

RECYCLING:
The product and its packaging are not suitable for recycling.

14. TRANSPORTATION INFORMATION

LAND TRANSPORT (DOT): Not classified.
SEA TRANSPORT (IMDG): Not classified.
AIR TRANSPORT (IATA): Not classified.
15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture here, has information on the product as supplied:

TSCA CHEMICAL SUBSTANCES INVENTORY:
All components of this product are either listed on the inventory or are exempt from listing. US SARA Reporting Requirements:

SARA (Section 311/312) HAZARD CLASS: Non-hazardous.
RCRA: Not RCRA hazardous.

16. OTHER INFORMATION

INFORMATION ABOUT REVISION OF SAFETY DATA SHEET:
Changes in terminology and requirements according to Regulation (EC) 1272/2008 and Regulation (EC) 453/20.
HCS Hazard Pictograms

Health Hazard
- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame
- Flammables
- Pyrophoric
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

Exclamation Mark
- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

Corrosion
- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Corrosion
- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Flame Over Circle
- Oxidizers

Abbreviations: MORE ABEVIATIONS AVAILABLE

ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP – Regulation of European parliament and Council for Classification, Labeling and Packaging of chemicals
EC50 – Median Effective Concentration
EUBA – European Bentonite Producers Association
GHS – Globally Harmonized System of Classification and Labeling of Chemicals
IARC – International Agency for Research on Cancer
IBC – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in

NOTE: OSHA WILL NOT ENFORCE SECTIONS 12 THE 15 (29 CFR 191200 (g) (2).

This SDS was prepared in accordance with the following: Federal Regulation 29 CFR 19120

MANUFACTURER DISCLAIMER:

NOTICE: We believe that the information contained on the Safety Data Sheet is accurate. The suggested procedures are based on experience as the date of publication. They are not necessarily either all-inclusive or fully adequate in every circumstance. Also, these suggestions should not be confused with or followed in violation of applicable laws, regulation, rules or insurance requirements.

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