SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
- Trade name AG16098

1.2 Relevant identified uses of the substance or mixture and uses advised against
Uses advised against
- See product label for restrictions for use.

1.3 Details of the supplier of the safety data sheet

Company
Winfield Solutions, LLC
P.O. Box 64589
St. Paul, MN 55164
Non-Emergency Business Phone: 1-855-494-6343
Mon - Fri 8am - 5pm (Central Standard Time)

1.4 Emergency telephone
MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24 hrs)
FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT:
CHEMTREC 1 800-424-9300 (24 hrs)

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)
Specific target organ systemic toxicity - single exposure, Category 3
H335: May cause respiratory irritation. (Respiratory system)

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Pictogram

Signal Word
- Warning

Hazard Statements
- H335 May cause respiratory irritation.

Precautionary Statements
Prevention
2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Hazardous Ingredients and Impurities

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Identification number CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-</td>
<td>25322-68-3</td>
<td>&gt;= 10 - &lt; 40</td>
</tr>
<tr>
<td>Proprietary Surfactant</td>
<td>*****</td>
<td>&lt; 5</td>
</tr>
</tbody>
</table>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

- First responder needs to protect himself.
- Place affected apparel in a sealed bag for subsequent decontamination.

In case of inhalation

- If breathed in, move person into fresh air.
- If breathing is difficult, give oxygen.
- If victim has stopped breathing:
  - administer CPR (cardio-pulmonary resuscitation)
  - Get immediate medical advice/ attention.

In case of skin contact

- In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Seek medical advice.
- Wash contaminated clothing before reuse.
In case of eye contact
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Get immediate medical advice/attention.

In case of ingestion
- Do not induce vomiting without medical advice.
- If victim is conscious:
  - Rinse mouth with water.
  - Keep at rest.
  - Do not give anything to drink.
  - Do not leave the victim unattended.
  - Vomiting may occur spontaneously
  - Risk of product entering the lungs on vomiting after ingestion.
  - Lay victim on side.
  - Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Effects
- Skin contact may aggravate existing skin disease
- Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures

Flash point
- > 200 °F (> 93 °C)

Autoignition temperature
- no data available

Flammability / Explosive limit
- no data available

5.1 Extinguishing media

Suitable extinguishing media
- Extinguishing media - small fires
- Dry chemical
- Carbon dioxide (CO2)
- Extinguishing media - large fires
- Foam
- Water spray

Unsuitable extinguishing media
- High volume water jet
- (frothing possible)
5.2 Special hazards arising from the substance or mixture

**Specific hazards during fire fighting**
- Under fire conditions:
- Will burn
- Container may rupture on heating.
- Vapors may spread long distances and ignite.

**Hazardous combustion products:**
- On combustion or on thermal decomposition (pyrolysis), releases:
  - Carbon oxides

5.3 Advice for firefighters

**Special protective equipment for fire-fighters**
- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

**Specific fire fighting methods**
- Do not use a solid water stream as it may scatter and spread fire.

**Further information**
- Standard procedure for chemical fires.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Wear suitable protective equipment.
- For further information refer to section 8 "Exposure controls / personal protection."

6.2 Environmental precautions
- Do not flush into surface water or sanitary sewer system.
- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

6.3 Methods and materials for containment and cleaning up

**Methods for containment**
- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- Dam up with sand or inert earth (do not use combustible materials).

**Recovery**
- Recover as much of the product as possible.
- Soak up with inert absorbent material.
- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.

**Decontamination / cleaning**
- Clean contaminated surface thoroughly.
- Wash nonrecoverable remainder with large amounts of water.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.
**Disposal**
- Dispose of in accordance with local regulations.

**Additional advice**
- Material can create slippery conditions.

**6.4 Reference to other sections**
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling
- Ethylene oxide may collect in container head space.
- Provide adequate ventilation.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Avoid inhalation of vapor or mist.
- Avoid contact with skin and eyes.
- Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.
- Avoid localized overheating.
- Vent drums while heating
- Homogenize before using.

**Hygiene measures**
- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
  - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
  - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
  - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

#### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures/Storage conditions**
- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Stable under normal conditions.
- Keep container tightly closed in a dry and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer
- Keep away from: Strong oxidizing agents, Strong reducing agents.

#### 7.3 Specific end use(s)
- no data available
SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Value type</th>
<th>Value</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-WEEL</td>
<td>WEEL</td>
<td>10 mg/m3</td>
<td>American Industrial Hygiene Association</td>
</tr>
<tr>
<td>Form of exposure : aerosol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hazardous components without workplace control parameters

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Identification number CAS-No.</th>
<th>Exposure Limit Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Surfactant</td>
<td>*****</td>
<td>None</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Control measures

Engineering measures
- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures:
  - Extract at emission point.
  - Effective exhaust ventilation system

Individual protection measures

Respiratory protection
- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Hand protection
- Recommended preventive skin protection
- Gloves
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection
- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:
  - Safety glasses with side-shields
  - In case of contact through splashing:
  - Face-shield

Skin and body protection
- Recommended preventive skin protection
- Footwear protecting against chemicals
- Impervious clothing
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
  - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
  - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
  - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Emergency equipment immediately accessible, with instructions for use.
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>off-white</td>
</tr>
<tr>
<td>Appearance</td>
<td>Physical state: liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>off-white</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Boiling point/boiling range: ( )</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 200 °F (&gt; 93 °C)</td>
</tr>
<tr>
<td>Evaporation rate (Butylacetate = 1)</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (liquids)</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability / Explosive limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>no data available</td>
</tr>
<tr>
<td>Density</td>
<td>no data available</td>
</tr>
</tbody>
</table>
Relative density
Solubility
Partition coefficient: n-octanol/water
Decomposition temperature
Viscosity
Explosive properties
Oxidizing properties

9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity
   - no data available

10.2 Chemical stability
   - Stable under normal conditions.

10.3 Possibility of hazardous reactions
   Polymerization
      - Hazardous polymerization does not occur.

10.4 Conditions to avoid
   - Keep away from heat and sources of ignition.

10.5 Incompatible materials
   - Strong oxidizing agents
   - Strong reducing agents

10.6 Hazardous decomposition products
   - On combustion or on thermal decomposition (following the evaporation of water) releases:
      - Carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

   Acute toxicity
   Acute oral toxicity
     - no data available
   Acute inhalation toxicity
     - no data available
<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Acute toxicity (other routes of</td>
<td>no data available</td>
</tr>
<tr>
<td>administration)</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>no data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>no data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>no data available</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td></td>
</tr>
<tr>
<td>Genotoxicity in vitro</td>
<td>no data available</td>
</tr>
<tr>
<td>Genotoxicity in vivo</td>
<td>no data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Toxicity for reproduction and</td>
<td></td>
</tr>
<tr>
<td>development</td>
<td></td>
</tr>
<tr>
<td>Toxicity to reproduction / fertility</td>
<td>no data available</td>
</tr>
<tr>
<td>Developmental Toxicity/Teratogenicity</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT</td>
<td></td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>no data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>no data available</td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

**12.1 Toxicity**

<table>
<thead>
<tr>
<th>Aquatic Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity to fish</td>
<td>no data available</td>
</tr>
</tbody>
</table>
Acute toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to aquatic plants: no data available

Toxicity to microorganisms: no data available

Chronic toxicity to fish: no data available

Chronic toxicity to daphnia and other aquatic invertebrates: no data available

Chronic Toxicity to aquatic plants: no data available

### 12.2 Persistence and degradability

**Abiotic degradation**

no data available

**Physical- and photo-chemical elimination**

no data available

**Biodegradation**

no data available

### 12.3 Bioaccumulative potential

**Partition coefficient: n-octanol/water**

no data available

**Bioconcentration factor (BCF)**

no data available

### 12.4 Mobility in soil

**Adsorption potential (Koc)**

no data available

**Known distribution to environmental compartments**

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no data available
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal
- Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Advice on cleaning and disposal of packaging
- Rinse with an appropriate solvent.
- Dispose of contents/container in accordance with local regulation.

SECTION 14: Transport information

DOT
not regulated

TDG
not regulated

NOM
not regulated

IMDG
not regulated

IATA
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

<table>
<thead>
<tr>
<th>Inventory Information</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States TSCA Inventory</td>
<td>- E = All ingredients are on the inventory or exempt from listing.</td>
</tr>
</tbody>
</table>
15.2 Federal Regulations

**US. EPA EPCRA SARA Title III**

**Section 313 Toxic Chemicals (40 CFR 372.65)**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane</td>
<td>75-21-8</td>
<td>10 lb</td>
</tr>
</tbody>
</table>

**Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane</td>
<td>75-21-8</td>
<td>10 lb</td>
</tr>
</tbody>
</table>

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane</td>
<td>75-21-8</td>
<td>10 lb</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>123-91-1</td>
<td>100 lb</td>
</tr>
<tr>
<td>Sodium hydroxide (Na(OH))</td>
<td>1310-73-2</td>
<td>1000 lb</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
<td>1000 lb</td>
</tr>
</tbody>
</table>

15.3 State Regulations

**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

**WARNING! This product contains a chemical known in the State of California to cause cancer.**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane</td>
<td>75-21-8</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>123-91-1</td>
</tr>
</tbody>
</table>

**WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane</td>
<td>75-21-8</td>
</tr>
</tbody>
</table>

**SECTION 16: Other information**
Further information

- Product evaluated under the US GHS format.

Revision Date: 02/17/2017
Supercedes Document Dated: 01/30/2017

Key or legend to abbreviations and acronyms used in the safety data sheet

- TWA 8-hr TWA
- ACGIH American Conference of Governmental Industrial Hygienists
- OSHA Occupational Safety and Health Administration
- NTP National Toxicology Program
- IARC International Agency for Research on Cancer
- NIOSH National Institute for Occupational Safety and Health

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.