SAFETY DATA SHEET

1. Product and Company Identification

Product identifier: Drain Out Kitchen Drain Opener
Other means of identification: Not available
Recommended use: Drain treatment
Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer:
Company name: Iron Out dba Summit Brands
Address: 6714 Pointe Inverness Way
Suite 200
Fort Wayne, IN 46804-7935
United States
Phone: Not available.
Telephone: 260-483-2519
E-mail: 260-483-2519
Emergency phone number: Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards: Not classified.
Health hazards: Serious eye damage/eye irritation Category 1
Environmental hazards: Not classified.
OSHA defined hazards: None known.

Label elements

Signal word: Danger
Hazard statement: Causes serious eye damage.
Precautionary statement: Wear eye protection.
Prevention: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.
Response: Store away from incompatible materials.
Storage: Disposal: Dispose of container in accordance with local, regional, national and international regulations.
Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information: None.

3. Composition/Information on Ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td></td>
<td>68439-46-3</td>
<td>5-10</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), beta-undecyl-omega-hydroxy-</td>
<td></td>
<td>34398-01-1</td>
<td>3-7</td>
</tr>
</tbody>
</table>

Composition comments: US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation: If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Skin contact: Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Eye contact

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Ingestion

Rinse mouth. Do not induce vomiting. Get medical attention if symptoms occur. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.

Most important symptoms/effects, acute and delayed

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. Treat patient symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media

Dry chemical. Carbon dioxide. Fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Firefighters should wear a self-contained breathing apparatus.

Special protective equipment and precautions for firefighters

Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling

Avoid prolonged exposure. Avoid contact with eyes, skin and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store in a closed container away from incompatible materials. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.

US ACGIH Threshold Limit Values: Skin designation

1,4-Dioxane (CAS 123-91-1) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

1,4-Dioxane (CAS 123-91-1) Can be absorbed through the skin.
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates
should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation,
or other engineering controls to maintain airborne levels below recommended exposure limits. If
exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields.

Skin protection
Hand protection
Impervious gloves. Confirm with reputable supplier first.

Other
Wear suitable protective clothing. As required by employer code.

Respiratory protection
Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Respirator should be selected by and used under the direction of a trained health and safety
professional following requirements found in OSHA's respirator standard (29 CFR 1910.134),
CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material
and before eating, drinking, and/or smoking. Routinely wash work clothing and protective
equipment to remove contaminants. Wash hands before breaks and immediately after handling
the product.

9. Physical and Chemical Properties

| Appearance | Clear |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Yellow |
| Odor | Citrus |
| Odor threshold | Not available. |
| pH | 6.5 - 7.5 |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Pour point | Not available. |
| Specific gravity | 1 |
| Partition coefficient (n-octanol/water) | Not available. |
| Flash point | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |

10. Stability and Reactivity

Reactivity
This product may react with strong oxidizing agents.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Do not mix with other chemicals.
| Incompatible materials                        | Acids. Oxidizers.                                      |
| Hazardous decomposition products             | May include and are not limited to: Oxides of carbon. |

### 11. Toxicological Information

#### Information on likely routes of exposure

- **Inhalation**: No adverse effects due to inhalation are expected.
- **Skin contact**: May cause irritation.
- **Eye contact**: Causes serious eye damage.
- **Ingestion**: May cause stomach distress, nausea or vomiting.

#### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

#### Information on toxicological effects

##### Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated (CAS 68439-46-3)</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg, 24 Hours, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2216 mg/kg, 24 Hours, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000 mg/kg, 24 Hours, ECHA</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>&gt; 5000 mg/kg, HMIR'A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 2000 mg/kg, 24 Hours, ECHA</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>&gt; 1600 mg/m3, 4 Hours, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 100 mg/m³, 6 hours, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 20 mg/L, 1 hours, Shell</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 1.6 mg/L, 4 Hours, ECHA</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>&gt; 5050 mg/kg, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5130 mg/kg, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4600 mg/kg, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3488 mg/kg, ECHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1400 mg/kg, Air products</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1378 mg/kg, SAX</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg, West Penetone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prolonged skin contact may cause temporary irritation.</td>
</tr>
</tbody>
</table>

#### Skin corrosion/irritation

- **Exposure minutes**: Not available.
- **Erythema value**: Not available.
- **Oedema value**: Not available.
- **Serious eye damage/eye irritation**: Causes serious eye damage.
- **Corneal opacity value**: Not available.
Iris lesion value  
Conjunctival reddening value  
Conjunctival oedema value  
Recover days  

Respiratory or skin sensitization  
Respiratory sensitization  
Skin sensitization  

Germ cell mutagenicity  
Carcinogenicity  

ACGIH Carcinogens  
1,2-Ethanediol (CAS 107-21-1)  
1,4-Dioxane (CAS 123-91-1)  
Oxirane (CAS 75-21-8)  

IARC Monographs. Overall Evaluation of Carcinogenicity  
1,4-Dioxane (CAS 123-91-1)  
Oxirane (CAS 75-21-8)  

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance  
1,4-Dioxane (CAS 123-91-1)  
Oxirane (CAS 75-21-8)  

US. National Toxicology Program (NTP) Report on Carcinogens  
1,4-Dioxane (CAS 123-91-1)  
Oxirane (CAS 75-21-8)  

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  
Oxirane (CAS 75-21-8)  

Reproductive toxicity  
Specific target organ toxicity - single exposure  
Specific target organ toxicity - repeated exposure  
Aspiration hazard  
Chronic effects  
Further information  

12. Ecological Information  

Ecotoxicity  

Ecotoxicological data  
Components  
Alcohols, C9-11, ethoxylated (CAS 68439-46-3)  

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainbow Trout</td>
<td>70.7 mg/L, 96 Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crustacea</th>
<th>EC50</th>
<th>Water flea (Daphnia magna)</th>
<th>2.9 - 8.5 mg/L, 48 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>6 - 12 mg/L, 96 hours</td>
</tr>
</tbody>
</table>

Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)  

<table>
<thead>
<tr>
<th>Crustacea</th>
<th>EC50</th>
<th>Water flea (Daphnia magna)</th>
<th>1.6 - 2.5 mg/L, 48 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>3.2 - 5 mg/L, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability  
Bioaccumulative potential  
Mobility in soil  
Mobility in general  
Other adverse effects  

No data is available on the degradability of this product.  
No data available.  
No data available.  
Not available.  
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
13. Disposal Considerations

**Disposal instructions**
Review federal, state/provincial, and local government requirements prior to disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**
Dispose in accordance with all applicable regulations.

**Hazardous waste code**
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

**U.S. Department of Transportation (DOT)**
Not regulated as dangerous goods.

15. Regulatory Information

**US federal regulations**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Ethanediol (CAS 107-21-1)</td>
<td></td>
</tr>
<tr>
<td>1,4-Dioxane (CAS 123-91-1)</td>
<td>Listed</td>
</tr>
<tr>
<td>Oxirane (CAS 75-21-8)</td>
<td>Listed</td>
</tr>
</tbody>
</table>

**US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane (CAS 75-21-8)</td>
<td>10 LBS</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Substance</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane (CAS 75-21-8)</td>
<td>Cancer</td>
</tr>
<tr>
<td></td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td></td>
<td>Mutagenicity</td>
</tr>
<tr>
<td></td>
<td>Central nervous system</td>
</tr>
<tr>
<td></td>
<td>Skin sensitization</td>
</tr>
<tr>
<td></td>
<td>Skin irritation</td>
</tr>
<tr>
<td></td>
<td>Eye irritation</td>
</tr>
<tr>
<td></td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td></td>
<td>Acute toxicity</td>
</tr>
<tr>
<td></td>
<td>Flammability</td>
</tr>
</tbody>
</table>

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard - Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delayed Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Fire Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Pressure Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Reactivity Hazard - No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SARA 302 Extremely hazardous substance</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 311/312 Hazardous chemical</td>
<td>No</td>
</tr>
<tr>
<td>SARA 313 (TRI reporting)</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Ethanediol</td>
<td>107-21-1</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>123-91-1</td>
</tr>
<tr>
<td>Oxirane</td>
<td>75-21-8</td>
</tr>
</tbody>
</table>

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Hazardous substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxirane</td>
<td></td>
</tr>
</tbody>
</table>

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)**

Hazardous substance
Safe Drinking Water Act (SDWA)

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Oxirane (CAS 75-21-8)
Not regulated.
Other Flavoring Substances with OSHA PEL’s

Food and Drug Administration (FDA)

US state regulations

1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US - Louisiana Spill Reporting: Listed substance
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US - Minnesota Haz Subs: Listed substance
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US - New Jersey RTK - Substances: Listed substance
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US - North Carolina Toxic Air Pollutants: Listed substance
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US - Pennsylvania RTK - Hazardous Substances: Special hazard
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US - Washington Chemical of High Concern to Children: Listed substance
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. Massachusetts RTK - Substance List
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US. New Jersey Worker and Community Right-to-Know Act
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US. Pennsylvania RTK - Hazardous Substances
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US. Pennsylvania Worker and Community Right-to-Know Law
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US. Rhode Island RTK
1,2-Ethanediol (CAS 107-21-1)
1,4-Dioxane (CAS 123-91-1)
Oxirane (CAS 75-21-8)

US. California Proposition 65
WARNING: This product can expose you to chemicals including 1,4-dioxane, which is known to the State of California to cause cancer, and 1,2-ethanediol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
1,4-Dioxane (CAS 123-91-1) Listed: January 1, 1988
Oxirane (CAS 75-21-8) Listed: July 1, 1987

US - California Proposition 65 - CRT: Listed date/Developmental toxin
1,2-Ethanediol (CAS 107-21-1) Listed: June 19, 2015
Oxirane (CAS 75-21-8) Listed: August 7, 2009
US - California Proposition 65 - CRT: Listed date/Female reproductive toxin
Oxirane (CAS 75-21-8) Listed: February 27, 1987
US - California Proposition 65 - CRT: Listed date/Male reproductive toxin
Oxirane (CAS 75-21-8) Listed: August 7, 2009

Country(s) or region
United States & Puerto Rico

Inventory name
Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)*
Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>Serious</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Slight</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Minimal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Disclaimer
The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date
30-November-2018

Revision date
30-November-2018

Version #
02

Further information
For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Other information
Redbook revision # 5, 4/3/17

Prepared by
Dell Tech Laboratories, Ltd. Phone: (519) 858-5021