SAFETY DATA SHEET

1. Identification

Product identifier MI-GLOW® 834
Other means of identification None.
Recommended use Non-destructive testing.
Recommended restrictions None known.
Manufacturer / Importer / Supplier / Distributor information
Company name Circle Systems, Inc.
Address 479 West Lincoln Ave.
P.O Box 1228
Hinckley, IL 60520
Telephone 815-286-3271
E-mail customerservice@circlesafe.com
Emergency phone number Chem-tel 800-255-3924 (US & Canada); +1-813-248-0585 (International)

2. Hazard(s) Identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
OSHA defined hazards Not classified.
Label elements

Signal word Warning
Hazard statement Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Precautionary statement
Prevention Wash thoroughly after handling. Avoid breathing mist or vapor. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
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 water. If skin irritation occurs; Get medical advice/attention. Take off contaminate clothing and wash before reuse. If inhaled; Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) Not classified.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Oxide</td>
<td>1317-61-9</td>
<td>&lt; 20</td>
</tr>
<tr>
<td>Sodium Tripolyphosphate</td>
<td>7758-29-4</td>
<td>&lt; 70</td>
</tr>
<tr>
<td>Tetrasodium pyrophosphate</td>
<td>7722-88-5</td>
<td>&lt; 5</td>
</tr>
</tbody>
</table>
Butendioic acid, sulfo-1,4-bis(2-ethylhexyl) ester sodium salt 577-11-7 < 5
Alcohols, C 12-14 ethoxylated, propoxylated 68439-51-0 < 10

4. First-aid measures

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin contact**
Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**
Direct contact with skin and eyes may cause irritation.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
None known.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire-fighting equipment/instructions**
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch or walk through spilled material. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up**
Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Flush area with plenty of water. For waste disposal, see Section 13 of the SDS.

**Environmental precautions**
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

**Precautions for safe handling**
Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing mist/vapors/spray. Use with adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**
Keep container tightly closed. Store in a cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).
8. Exposure controls/personal protection

Occupational exposure limits

US NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium pyrophosphate (CAS 7722-88-5)</td>
<td>TWA</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

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

Appropriate engineering controls
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. Provide eyewash station.

Individual protection measures, such as personal protective equipment
Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear protective gloves.

Other
Wear suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
When using, do not eat, drink or smoke. 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.

9. Physical and chemical properties

Appearance
Physical state
Solid.
Form
Powder.
Color
Dark green.

Odor
Detergent like.

Odor threshold
Not available.

pH
8 – 10

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
Not relevant.

Evaporation rate
Not relevant.

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits
Flammability limit – lower (%)
Not relevant.

Flammability limit – upper (%)
Not relevant.

Explosive limit – lower (%)
Not available.

Explosive limit – upper (%)
Not available.

Vapor pressure
Not relevant.

Vapor density
Not relevant.

Specific gravity
0.6 (68 °F (20°C))

Solubility(ies)
Soluble in water.

Partition coefficient (n-octanol/water)
Not available.

Auto-ignition temperature
Not relevant.

Decomposition temperature
Not relevant.
10. Stability and reactivity
Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability
Material is stable under normal conditions.
Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.
Conditions to avoid
Contact with incompatible materials.
Incompatible materials
Strong oxidizing agents.
Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
Ingestion
Expected to be a low ingestion hazard.
Inhalation
May cause irritation to the respiratory system.
Skin contact
May cause skin irritation.
Eye contact
Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics
Dusts or powder may irritate the respiratory tract, skin, and eyes.

Information on toxicological effects
Acute toxicity
Ingestion of large quantities may cause irritation, nausea, vomiting, diarrhea, bluish-purple discoloration of skin, decreased blood pressure, decreased heart rate, coma.
Skin corrosion/irritation
Causes skin irritation.
Serious eye damage/eye irritation
Causes serious eye irritation.
Respiratory sensitization
No data available.
Skin sensitization
No data available.
Germ cell mutagenicity
No data available.
Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity
Not expected to be a reproductive hazard.
Specific target organ toxicity – single exposure
No data available.
Specific target organ toxicity – repeated exposure
No data available.
Aspiration hazard
No data available.

12. Ecological information
Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability
No data is available on the degradability of this product.
Bioaccumulative potential
No data available for this product.
Mobility in soil
Not available.
Other adverse effects
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
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.
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).
14. Transport information

**DOT**
Not regulated as dangerous goods.

**IATA**
Not regulated as dangerous goods.

**IMDG**
Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not available.

15. Regulatory information

**US federal regulations**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

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

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**
Not listed.

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

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

**SARA 302 Extremely hazardous substance**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Reportable quantity</th>
<th>Threshold planning quantity</th>
<th>Threshold planning quantity, lower value</th>
<th>Threshold planning quantity, upper value</th>
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</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>100</td>
<td>500 lbs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous chemical**
Not listed.

**SARA 313 (TRI reporting)**
Not listed.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
Not regulated.

**Safe Drinking Water Act (SDWA)**
Not regulated.

**US state regulations**

**US Massachusetts RTK - Substance List**
- Tetrasodium pyrophosphate (CAS 7722-88-5)
- Sodium Tripolyphosphate (CAS 7758-29-4)

**US New Jersey Worker and Community Right-to-Know Act**
- Tetrasodium pyrophosphate (CAS 7722-88-5)

**US Pennsylvania RTK - Hazardous Substances**
- Tetrasodium pyrophosphate (CAS 7722-88-5)
- Sodium Tripolyphosphate (CAS 7758-29-4)
US Rhode Island RTK
Sodium Tripolyphosphate (CAS 7758-29-4)

US California Proposition 65
WARNING: This product does contain a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Formaldehyde (CAS 50-00-0)

International Inventories
<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Issue date</th>
<th>3-July-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>14-August-2017</td>
</tr>
<tr>
<td>Version #</td>
<td>02</td>
</tr>
</tbody>
</table>
| HMIS® ratings  | Health: 1
                Flammability: 0
                Physical Hazard: 0 |
| NFPA Ratings   | ![NFPA Rating](image) |
| List of abbreviations | TWA: Time weighted average |
| References     | HSDB® - Hazardous Substances Data Bank |
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