1. Identification

Product identifier MI-GLOW® 778
Other means of identification Not available.
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 Serious eye damage/eye irritation Category 2A
Reproductive toxicity (fertility, the unborn child) Category 1B
OSHA defined hazards Not classified.
Label elements
  Signal word Danger
  Hazard statement Causes serious eye irritation. May damage fertility or the unborn child.
  Precautionary statement
    Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
    Response If exposed or concerned: Get medical advice/attention. 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.
  Storage 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>Boric acid</td>
<td>10043-35-3</td>
<td>&lt; 35</td>
</tr>
<tr>
<td>Iron Oxide</td>
<td>1317-61-9</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Butendioic acid, sulfo-1,4-bis(2-ethylhexyl) ester sodium salt</td>
<td>577-11-7</td>
<td>&lt; 3</td>
</tr>
</tbody>
</table>
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**
Irritation of eyes and mucous membranes.

**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. If exposed or concerned: Get medical advice/attention.

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**
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. 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 in original containers for re-use. 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 exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid breathing mist/vapors/spray. Use with adequate ventilation. 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**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (CAS 10043-35-3)</td>
<td>STEL</td>
<td>6 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>2 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>

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SDS US
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
Liquid.
Form
Liquid.
Color
Dark green
Odor
Detergent like.
Odor threshold
Not available.
pH
8 - 9
Melting point/freezing point
Not available.
Initial boiling point and boiling range
Not available.
Flash point
Not applicable.
Evaporation rate
Not available.
Flammability (solid, gas)
Not relevant.

Upper/lower flammability or explosive limits
Flammability limit – lower (%)
Not available.
Flammability limit – upper (%)
Not available.
Explosive limit – lower (%)
Not relevant.
Explosive limit – upper (%)
Not relevant.
Vapor pressure
Not available.
Vapor density
Not available.
Specific gravity
1.3 (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.
Viscosity
Not available.

Other information
VOC (Weight %)
Not applicable.

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.
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 eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Irritation of eyes and mucous membranes.

Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid (CAS 10043-35-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Acute Oral</td>
<td>Rat</td>
<td>2660 mg/kg</td>
</tr>
</tbody>
</table>

Butendioic acid, sulfo-1,4-bis(2-ethylhexyl) ester sodium salt (CAS 577-11-7)

| Acute Oral | Mouse | 2.64 g/kg |

Skin corrosion/irritation Prolonged skin contact may cause temporary 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 May damage fertility or the unborn child.

Specific target organ toxicity – single exposure No data available.

Specific target organ toxicity – repeated exposure No data available.

Aspiration hazard No data available.

Chronic effects Prolonged inhalation may be harmful.

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 a hazardous material by DOT.

IATA
Not regulated as a dangerous good.

IMDG
Not regulated as a dangerous good.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
This substance/mixture is not intended to be transported in bulk.

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)
Hazard Categories
Immediate Hazard – Yes
Delayed Hazard – Yes
Fire Hazard – No
Pressure Hazard – No
Reactivity Hazard – No

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>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>100</td>
<td>500 lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 311/312 Hazardous chemical</td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 313 (TRI reporting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
Not regulated.

US New Jersey Worker and Community Right-to-Know Act
Boric acid (CAS 10043-35-3)

US Pennsylvania RTK - Hazardous Substances
Not regulated.

US Rhode Island RTK
Not regulated.

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>Yes</td>
</tr>
<tr>
<td></td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</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>29-October-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>14-December-2017</td>
</tr>
<tr>
<td>Version #</td>
<td>03</td>
</tr>
<tr>
<td>HMIS® ratings</td>
<td>Health: 2</td>
</tr>
<tr>
<td></td>
<td>Flammability: 0</td>
</tr>
<tr>
<td></td>
<td>Physical hazard: 0</td>
</tr>
</tbody>
</table>

**NFPA Ratings**

- **Health**: 2
- **Flammability**: 0
- **Physical hazard**: 0

**List of abbreviations**

- LD50: Lethal Dose, 50%.
- STEL: Short term exposure limit
- TWA: Time weighted average

**References**

- HSDB® - Hazardous Substances Data Bank

**Disclaimer**

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