


## SAFETY DATA SHEET

### 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** 1210 Osborne road  
 Saint Marys, GA 31558  
**Telephone** 912-729-2735  
**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

Chemical name	CAS number	%
Boric acid	10043-35-3	< 35
Iron Oxide	1317-61-9	< 5
Butendioic acid, sulfo-1,4-bis(2-ethylhexyl) ester sodium salt	577-11-7	< 3

## 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of eyes and mucous membranes.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
<b>General information</b>	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

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	None known.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	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

<b>Personal precautions, protective equipment and emergency procedures</b>	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.
<b>Methods and materials for containment and cleaning up</b>	<p>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.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	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.
<b>Conditions for safe storage, including any incompatibilities</b>	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 ACGIH Threshold Limit Values

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	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.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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

<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Dark green
<b>Odor</b>	Detergent like.
<b>Odor threshold</b>	Not available.
<b>pH</b>	8 - 9
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not relevant.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%)</b>	Not available.
<b>Flammability limit – upper (%)</b>	Not available.
<b>Explosive limit – lower (%)</b>	Not relevant.
<b>Explosive limit – upper (%)</b>	Not relevant.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	1.3 (68 °F (20 °C))
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not relevant.
<b>Decomposition temperature</b>	Not relevant.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>VOC (Weight %)</b>	Not applicable.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.

<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	May cause skin irritation.
<b>Eye contact</b>	Causes eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Irritation of eyes and mucous membranes.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
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Boric acid (CAS 10043-35-3)

#### Acute

##### Dermal

LD50	Rabbit	> 2000 mg/kg
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##### Oral

LD50	Rat	2660 mg/kg
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Butendioic acid, sulfo-1,4-bis(2-ethylhexyl) ester sodium salt (CAS 577-11-7)

#### Acute

##### Oral

LD50	Mouse	2.64 g/kg
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**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

<b>Ecotoxicity</b>	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.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available for this product.
<b>Mobility in soil</b>	Not available.
<b>Other adverse effects</b>	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

<b>Disposal instructions</b>	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.
<b>Waste from residues / unused products</b>	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.

### US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

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

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Formaldehyde	50-00-0	100	500 lbs		
<b>SARA 311/312 Hazardous chemical</b>	Yes				
<b>SARA 313 (TRI reporting)</b>					
Not regulated.					

### 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**

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

\*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

<b>Issue date</b>	29-October-2013
<b>Revision date</b>	30-January-2019
<b>Version #</b>	04
<b>HMIS® ratings</b>	Health: 2 Flammability: 0 Physical hazard: 0

**NFPA Ratings**

<b>List of abbreviations</b>	LD50: Lethal Dose, 50%. STEL: Short term exposure limit TWA: Time weighted average
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<b>References</b>	HSDB® - Hazardous Substances Data Bank
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