




SAFETY DATA SHEET

1. Identification

Product identifier	MI-GLOW® 418	
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

Chemical name	CAS number	%
Iron	7439-89-6	< 20
Iron Oxide	1317-61-9	< 10
Sodium Tripolyphosphate	7758-29-4	< 60
Tetrasodium pyrophosphate	7722-88-5	< 5

Butendioic acid, sulfo-1,4-bis(2-ethylhexyl) ester sodium salt	577-11-7	< 5
Alcohols, C 12-14 ethoxyated, propoxyated	68439-51-0	< 5

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

Components	Type	Value
Tetrasodium pyrophosphate (CAS 7722-88-5)	TWA	5 mg/m ³

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 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 1.1 (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.
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.
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Components	Species	Test Results
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Iron (CAS 7439-89-6)

Acute		
Oral		
LD50	Rat	30 g/kg
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.

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 – No
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
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Formaldehyde	50-00-0	100	500 lbs		
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SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

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

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

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)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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

Issue date	7-July-2014
Revision date	14-August-2017
Version #	02
HMIS® ratings	Health: 1 Flammability: 0 Physical Hazard: 0

NFPA Ratings



List of abbreviations

LD50: Lethal Dose, 50%
TWA: Time weighted average

References

HSDB® - Hazardous Substances Data Bank

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