



## Quick Identifier

(as used in label and list)  
1000 Green Low Freeze  
Point Fluid

# Safety Data Sheet

## Section 1

## Product and Company Identification

**Common Name**

1000 Green Low Freeze Point Fluid

**Product Model Number**

922WA-LFP

**Product File Number**

920:405-922WA-LFP-10

**Product Use**

Indicating Fluid

**Manufacturer's Name**

Meriam

**Emergency Phone Numbers**

1-800-255-3924 (US), + 01 813 248 0585 (International)

**Address**

10920 Madison Ave.

**Engineering Control Data**

MSDS - A35796-1, Rev. N, EO 7519

**City, State, Zip**

Cleveland, Ohio 44102

**Date Prepared**

06-Nov-2015

## Section 2

## Hazards Identification

### Classification of the substance or mixture

#### GHS Hazards

**Flammable liquids:** Category 4

**Acute toxicity (Oral):** Category 4

**Acute toxicity (Inhalation):** Category 4

**Acute toxicity (Dermal):** Category 4

**Serious Eye damage/irritation:** Category 1

**Ski corrosion/irritation:** Category 2

**Specific target organs (single exposure):** Target organs—

Central nervous system (CNS):

**Specific target organs (repeated exposure):** Target organs—

Liver, kidney:

**Pictogram:**

Hazard symbols:

**Signal word:**

DANGER.

**Hazard statements**

<b>H226</b>	Flammable liquids and vapor.
<b>H227</b>	Combustible liquid.
<b>H302</b>	Harmful if swallowed.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H332</b>	Harmful if inhaled.
<b>H371</b>	May cause damage to organs, single exposure.
<b>H373</b>	May cause damage to organs or organ systems through prolonged or repeated exposure, kidney.

**Precautionary statements****Prevention**

<b>P210</b>	Keep away from heat/sparks/open flames/hot surfaces. - <b>No smoking.</b>
<b>P233</b>	Keep container tightly closed.
<b>P240</b>	Ground/bond container and receiving equipment.
<b>P241</b>	Use explosion-proof electrical/ventilating/lighting/equipment.
<b>P242</b>	Use only non-sparking tools.
<b>P243</b>	Take precautionary measures against static discharge.
<b>P260</b>	Do not breathe dust/fumes/gas/mist/vapors/spray
<b>P261</b>	Avoid breathing dust/fumes/gas/mist/vapors/spray.
<b>P264</b>	Wash skin thoroughly after handling.
<b>P270</b>	Do not eat, drink or smoke when using this product.
<b>P271</b>	Use only outdoors or in a well-ventilated area.
<b>P280</b>	Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**

<b>P370 + P378</b>	<b>In case of fire:</b> <ul style="list-style-type: none"> <li>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.</li> </ul>
<b>P301 + P312</b>	<b>If swallowed:</b> <ul style="list-style-type: none"> <li>Call a <b>Poison Center</b> or doctor/ physician if you feel unwell.</li> </ul>
<b>P314</b>	Get medical advice if you feel unwell.
<b>P330</b>	Rinse mouth.
<b>P302 + P352</b>	<b>If on skin:</b> <ul style="list-style-type: none"> <li>Wash with plenty of soap and water.</li> </ul>
<b>P362</b>	Take off contaminated clothing and wash before reuse.





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## Section 6

## Accidental Release Measures

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### Personal precautions, protective equipment, and emergency procedures:

- Evacuate non-essential personnel.
- Wear all appropriate protective equipment designated in **Section 8**.
- **Do not** breathe vapors or aerosols.
- Ventilate the area.
- Do not get material on skin or clothing.

### Environmental precautions:

- Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers, or waterways.

### Methods and materials for containment and clean up:

- Cover drains and contain spill.
- Cover spill with a large quantity of inert absorbent (for example: sand, earth, diatomaceous earth, vermiculite).
- Do not use combustible material such as sawdust.
- Use spark-proof tools and explosion proof equipment.
- Remove sources of ignition.
- Take precautionary measures against static discharges.
- Shovel or sweep up material and place into an approved container for proper disposal.
- Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways.
- Dispose of according to state and federal regulations.

### Waste disposal:

- Place in an appropriate disposal facility in compliance with federal, state, and local regulations, (see **Section 13**).
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## Section 7

## Handling and Storage

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### Precautions for safe handling:

- Skin and eye contact should be avoided as good industrial practice.
- Wearing of protective gloves and eye protection is recommended.
- Wash hands and contaminated skin area after handling.
- Use only with adequate ventilation.
- Follow all warnings and precautions even after container is emptied.
- Wash thoroughly after handling or at the end of the shift.
- Handle in accordance with good industrial hygiene and safety practices.

### Conditions for safe storage:

- Store in tightly closed containers in a cool dry, well ventilated area.
- Keep away from, heat, sources of ignition and incompatibles; strong oxidizers and acids.
- Keep container tightly closed and upright when not in use, should not be opened until ready for use.

### Other precautions:

- All handling equipment should be properly grounded to prevent the build-up of electrostatic charges.
  - Storage area should be equipped with CO2 system.
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## Section 8

## Exposure Controls/Personal Protection

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## Control parameters

<b>CAS Number:</b>	111-76-2
<b>Ingredient:</b>	2-butoxyethanol
<b>OSHA/PEL:</b>	50 ppm 240 mg/m <sup>3</sup>
<b>ACGIH TLV:</b>	(8-hour) 20 ppm

<b>CAS Number:</b>	107-21-1
<b>Ingredient:</b>	Ethylene Glycol
<b>OSHA/PEL: CEIL:</b>	100 mg/m <sup>3</sup>
<b>ACGIH TLV: STEL:</b>	50 ppm

## Exposure Controls

<b>Engineering Measures:</b>	<ul style="list-style-type: none"><li>• General (mechanical) room ventilation is generally satisfactory. Special, that is, explosion-proof, local ventilation may be needed at points where vapors can be expected to exceed exposure limits.</li></ul>
<b>Individual protection measures:</b>	<ul style="list-style-type: none"><li>• Wear protective clothing to prevent repeated or prolonged contact with product.</li><li>• Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substance handled.</li><li>• The chemical resistance of the protective equipment should be inquired at the representative supplier.</li></ul>
<b>Hygiene measures:</b>	<ul style="list-style-type: none"><li>• Facilities storing or using this material should be equipped with an eyewash station and safety shower.</li><li>• Change contaminated clothing .</li><li>• Preventative skin protection is recommended.</li><li>• Wash hands thoroughly after use, before eating, drinking or using lavatory.</li></ul>
<b>Eye/face protection:</b>	<ul style="list-style-type: none"><li>• Wear protective goggles or safety glasses with non-perforated side shields and face shield.</li><li>• Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN 166.</li></ul>
<b>Hand protection:</b>	<ul style="list-style-type: none"><li>• Wear gloves recommended by glove supplier for protection against materials in <b>Section 3</b>.</li><li>• Glove should be impermeable to chemicals and oil.</li><li>• Breakthrough time should be greater than the intended use period.</li></ul>
<b>Respiratory protection:</b>	<ul style="list-style-type: none"><li>• Not typically required.</li><li>• If exposure exceeds permissible exposure limits, wear a self-contained breathing apparatus.</li><li>• Always use approved respirator when vapor/aerosols are generated.</li><li>• Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.</li><li>• If the respirator is the sole means of protection, use a full-face supplied air respirator.</li><li>• Use respirators and components tested and approved under the appropriate government standards such as NIOSH (US) or CEN (EU).</li></ul>
<b>Additional protective clothing or equipment:</b>	<ul style="list-style-type: none"><li>• Boots, aprons, or chemical suits should be used when necessary to prevent skin contact.</li><li>• Eye wash fountains and safety showers should be available for emergency use.</li></ul>

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## Section 9

## Physical and Chemical Properties

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<b>Appearance:</b>	Green color.
<b>Form:</b>	Liquid
<b>Odor:</b>	Mild.
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	Data unavailable.
<b>Freezing/melting point, range:</b>	Not established.
<b>Initial Boiling point:</b>	154 °C (310 °F)
<b>Evaporation rate:</b>	Not applicable.
<b>Flammability (solid, gas) :</b>	No data available.
<b>Flammability:</b>	Data unavailable.
<b>Flash point:</b>	Not established.
<b>Autoignition temperature:</b>	Data unavailable.
<b>Decomposition temperature:</b>	No data available.
<b>Lower explosive limit (LEL):</b>	Data unavailable.
<b>Upper explosive limit:</b>	Data unavailable.
<b>Vapor pressure:</b>	20 at (20 °C)
<b>Vapor density:</b>	< 1, (air = 1)
<b>Specific gravity:</b>	0.9982 at 20 °C, (H <sub>2</sub> O)
<b>Viscosity:</b>	Data unavailable.
<b>Solubility in water:</b>	Completely miscible.
<b>Reactivity in water:</b>	0
<b>Partition coefficient: n-Octanol/water:</b>	Data unavailable.
<b>Volatiles by volume at 21 °C:</b>	Data unavailable.
<b>V.O.C.:</b>	739 g/L
<b>Other data:</b>	No data available.

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## Section 10

## Stability and Reactivity

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<b>Reactivity:</b>	Stable at normal ambient temperature and ordinary conditions.
<b>Chemical stability:</b>	No decomposition if stored and applied as directed.
<b>Conditions to avoid:</b>	Keep away from heat, flames, and sources of ignition.
<b>Incompatibility (Materials to Avoid):</b>	Oxygen and strong oxidizing agents.
<b>Hazardous decomposition products:</b>	Carbon oxides and various hydrocarbons may be formed during combustion.
<b>Hazardous polymerization:</b>	Will not occur.

## Section 11

## Toxicological Information

### Acute toxicity

<b>LD50, Oral-Rat:</b>	<ul style="list-style-type: none"><li>&gt; 300 mg/kg to 2 000 mg/kg (literature value)</li></ul>
<b>LD50, Derma-Rabbit:</b>	<ul style="list-style-type: none"><li>&gt; 1 000 mg/kg to 2 000 mg/kg (literature value)</li></ul>
<b>LC50, Inhalation-Rat</b>	<ul style="list-style-type: none"><li>(4 hours): &gt; 10 mg/L to 20 mg/L</li></ul>

### Inhalation

<b>Acute Effects:</b>	High vapor concentrations may cause irritation of the upper respiratory tract and dyspnea.
<b>Chronic Effects:</b>	<ul style="list-style-type: none"><li>Repeated or prolonged exposures would be expected to cause irritation of the respiratory tract and narcosis.</li><li>May cause liver and kidney damage as well as hemolysis.</li></ul>

### Skin corrosion/irritation

<b>Skin contact:</b>	May cause skin irritation.
<b>Prolonged or repeated exposures:</b>	Produces skin irritation.

<b>Eye irritation/corrosion:</b>	Causes eye irritation.
<b>Sensitization:</b>	No data available.
<b>Genotoxicity in vitro:</b>	Not established.
<b>Mutagenicity</b>	Not indicated.
<b>Reproductive toxicity:</b>	No data available.
<b>Specific target organ toxicity (single exposure):</b>	See: <b>Further information</b> below.
<b>Specific target organ toxicity (repeated exposure):</b>	See: <b>Further information</b> below.
<b>Aspiration hazard:</b>	No data available.

### Carcinogen or potential carcinogen

<b>National Toxicology Program:</b>	No.
<b>I.A.R.C Monographs:</b>	No.
<b>OSHA:</b>	No.

### Further information:

<b>Reproductive effects:</b>	Adverse reproductive effects have occurred in humans.
<b>Developmental effects:</b>	Substances known to cause developmental toxicity in humans.
<b>Teratogenicity:</b>	Teratogenic effects have occurred in humans.
<b>STOT-single exposure:</b>	Central nervous system (CNS).
<b>STOT-repeated exposure:</b>	<ul style="list-style-type: none"><li>Liver.</li><li>Kidney.</li></ul>
<b>Causes foetotoxicity in animals:</b>	Considered to be secondary to maternal toxicity.
<b>Symptoms / effects, both acute and delayed:</b>	Symptoms of overexposure may be headache, dizziness, nausea, and vomiting.



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## Section 12

## Ecological Information

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<b>Toxicity:</b>	Liquid can be toxic to aquatic life.
<b>Persistent and degrade in the environment:</b>	Not provided.
<b>Bioaccumulative potential:</b>	Not provided.
<b>Mobility in soil:</b>	Not provided.
<b>Results of PBT and vPvB assessment:</b>	Not provided.
<b>Other adverse effects:</b>	Additional ecological information: <ul style="list-style-type: none"><li>• Do not allow material to run into surface waters, wastewaters, or soil.</li><li>• An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.</li></ul>

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## Section 13

## Disposal Considerations

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<b>Waste treatment methods/disposal methods:</b>	<ul style="list-style-type: none"><li>• The generation of waste should be avoided or minimized whenever possible.</li><li>• Empty containers or liners may retain some product residues.</li><li>• This material and its container must be disposed of in a safe way.</li><li>• Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.</li><li>• Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.</li><li>• Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.</li><li>• Contact a licensed professional waste disposal service to dispose of this material along with any containment and cleanup materials.</li></ul>
<b>Hazard waste:</b>	<ul style="list-style-type: none"><li>• Not considered a hazardous substance.</li><li>• Dispose of all cleanup materials in accordance with all local, state, and federal regulations.</li></ul>

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## Section 14

## Transport Information

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<b>Proper Shipping Name:</b>	Not regulated.
<b>Hazard Class or Division:</b>	3
<b>Identification Number:</b>	NA1993
<b>Packing Group:</b>	III
<b>IATA/ICAO:</b>	Not regulated.

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## Section 15

## Regulatory Information

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<b>TSCA (Toxic Substance Control Act)</b>	All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements.
<b>SARA Section 302 Extremely Hazardous Substances (EHS):</b>	This product does not contain any components regulated under Section 302 (40 CFR 355) as Extremely Hazardous Substances.
<b>SARA Section 304 CERCLA Hazardous Substances:</b>	This product does not contain any components regulated under section 304 (40 CFR 370) as hazardous chemicals for emergency release.
<b>SARA Section 311/312 Hazard Communication Standard (HCS)</b>	This product is regulated under Section 311/312 HCS (40 CFR 370) as: <ul style="list-style-type: none"><li>• Delayed health hazard.</li><li>• Fire Hazard.</li><li>• Immediate Health Hazard.</li></ul>
<b>SARA 313 Toxic Chemical List (TCL)</b>	This product contains Glycol Ether.
<b>Clean Water Act (CWA) – Priority Pollutants</b>	Not Provided.
<b>State regulations:</b>	California Proposition 65: Not Provided.
<b>International regulations:</b>	Not Provided.

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## Section 16

## Other Information

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### This product is for industrial and laboratory use only.

- Do not store in open, unlabeled or mislabeled containers.
  - Store in cool, dry place with adequate ventilation.
  - Keep away from flames and high temperatures.
  - For personal hygiene protection, we recommend that employees wash thoroughly after handling product.
  - Always wash up before eating, smoking, and using toilet facilities.
  - Keep out of reach of children.
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- HMIS® rating: HEALTH - 2 FLAMMABILITY - 2 REACTIVITY - 1.
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