

## 1. Identification

**Product identifier** 896-1001 CHROMA-CHEM® RED IRON OXIDE ARO

**Other means of identification**

**SAP Specification** 000000139367

**Recommended use** Aqueous industrial colorant

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company** Chromaflo Technologies Corporation  
2600 Michigan Avenue  
Ashtabula, OH, USA 44005-0816

Distributed by:



**NORTHSPEC**  
NORTHSPEC CHEMICALS CORP.

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Toronto, Ont. M2J 4P8  
416-496-0128

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Brampton, Ontario, Canada L6T-1E6

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**GLOBAL: EMERG. # (3E)** (+1) 760-476-3962

**3E CONTRACT #** 12154

**3E ACCESS CODE** 334294

**CANADA: CANUTEC** 613-996-6666

**EMERGENCY NUMBER**

**Product Regulatory Services** ehs\_americas@chromaflo.com

**Supplier** Not available.

## 2. Hazard(s) identification

**Physical hazards** Not classified.

|                       |   |             |
|-----------------------|---|-------------|
| <b>Health hazards</b> | Skin corrosion/irritation                         | Category 2  |
|                       | Serious eye damage/eye irritation                 | Category 2A |
|                       | Reproductive toxicity (the unborn child)          | Category 2  |
|                       | Specific target organ toxicity, repeated exposure | Category 1  |

### Label elements



**Signal word** Danger

**Hazard statement** Causes skin irritation. Causes serious eye irritation. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure.

## Precautionary statement

### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

### Response

IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

### Storage

Store locked up.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Other hazards

None known.

### Supplemental information

If product is in liquid or paste form, hazards related to dust are not considered significant. But product may contain substances that could be potential hazards if caused to become airborne due to abrasive processes.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name                                       | Common name and synonyms | CAS number | %        |
|---|--------------------------|------------|----------|
| Ferric Oxide  |                          | 1309-37-1  | 40 - 60  |
| Diethylene Glycol Monomethyl Ether                  |                          | 111-77-3   | 2.5 - 10 |
| 2-dimethylaminoethanol;<br>N,N-dimethylethanolamine |                          | 108-01-0   | 1 - 2.5  |
| Ethylene Glycol Monobutyl Ether                     |                          | 111-76-2   | 1 - 2.5  |
| Titanium Dioxide                                    |                          | 13463-67-7 | 0.1 - 1  |
| Other components below reportable levels            |                          |            | 40 - 60  |

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

### Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### 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. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire-fighting measures

### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

### Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

### 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

Move containers from fire area if you can do so without risk.

### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**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 to 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** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Store in original tightly closed container. 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                 |
|--|------|----------------------|----------------------|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | TWA  | 20 ppm               |                      |
| Ferric Oxide (CAS 1309-37-1)                   | TWA  | 5 mg/m <sup>3</sup>  | Respirable fraction. |
| Titanium Dioxide (CAS 13463-67-7)              | TWA  | 10 mg/m <sup>3</sup> |                      |

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components                                     | Type | Value                         | Form        |
|--|------|-------------------------------|-------------|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | TWA  | 97 mg/m <sup>3</sup>          |             |
| Ferric Oxide (CAS 1309-37-1)                   | TWA  | 20 ppm<br>5 mg/m <sup>3</sup> | Respirable. |
| Titanium Dioxide (CAS 13463-67-7)              | TWA  | 10 mg/m <sup>3</sup>          |             |

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components                                     | Type | Value   | Form                                   |
|--|------|---|--|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | TWA  | 20 ppm  |  |
| Ferric Oxide (CAS 1309-37-1)                   | STEL | 10 mg/m <sup>3</sup>  | Fume.                                  |
|  | TWA  | 5 mg/m <sup>3</sup><br>5 mg/m <sup>3</sup><br>3 mg/m <sup>3</sup><br>10 mg/m <sup>3</sup> | Dust.<br>Fume.<br>Respirable fraction. |
| Titanium Dioxide (CAS 13463-67-7)              | TWA  | 3 mg/m <sup>3</sup><br>10 mg/m <sup>3</sup>   | Total dust.<br>Respirable fraction.    |

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

| Components                                     | Type | Value    | Form                 |
|--|------|----------|----------------------|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | TWA  | 20 ppm   |                      |
| Ferric Oxide (CAS 1309-37-1)                   | TWA  | 5 mg/m3  | Respirable fraction. |
| Titanium Dioxide (CAS 13463-67-7)              | TWA  | 10 mg/m3 |                      |

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

| Components  | Type | Value             | Form                 |
|---|------|-------------------|----------------------|
| 2-dimethylaminoethanol; N,N-dimethylethanolamine (CAS 108-01-0) | STEL | 22 mg/m3          |                      |
|   | TWA  | 6 ppm<br>11 mg/m3 |                      |
|   | TWA  | 3 ppm<br>20 ppm   |                      |
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2)                  | TWA  | 20 ppm            |                      |
| Ferric Oxide (CAS 1309-37-1)                                    | TWA  | 5 mg/m3           | Respirable fraction. |
| Titanium Dioxide (CAS 13463-67-7)                               | TWA  | 10 mg/m3          |                      |

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

| Components                                     | Type | Value    | Form           |
|--|------|----------|----------------|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | TWA  | 97 mg/m3 |                |
|  |      | 20 ppm   |                |
| Ferric Oxide (CAS 1309-37-1)                   | TWA  | 5 mg/m3  | Dust and fume. |
| Titanium Dioxide (CAS 13463-67-7)              | TWA  | 10 mg/m3 | Total dust.    |
|  | TWA  | 10 mg/m3 | Total dust.    |

**Biological limit values****ACGIH Biological Exposure Indices**

| Components                                     | Value    | Determinant                              | Specimen            | Sampling Time |
|--|----------|--|---------------------|---------------|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | 200 mg/g | Butoxyacetic acid (BAA), with hydrolysis | Creatinine in urine | *             |

\* - For sampling details, please see the source document.

**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. Eye wash fountain and emergency showers are recommended.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles).

**Skin protection****Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to vapor/mist at levels exceeding the exposure limits.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Observe any medical surveillance requirements. 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**

Material name: 896-1001 CHROMA-CHEM® RED IRON OXIDE ARO  
000000139367 Version #: 03 Revision date: 08-22-2017 Issue date: 02-13-2017

|   |                        |
|---|------------------------|
| <b>Physical state</b>                               | Liquid.                |
| <b>Form</b>   | Liquid.                |
| <b>Color</b>  | Red.                   |
| <b>Odor</b>   | Characteristic.        |
| <b>Odor threshold</b>                               | Not available.         |
| <b>pH</b>   | Not available.         |
| <b>Melting point/freezing point</b>                 | Not available.         |
| <b>Initial boiling point and boiling range</b>      | > 212 °F (> 100 °C)    |
| <b>Flash point</b>                                  | > 205.0 °F (> 96.1 °C) |
| <b>Evaporation rate</b>                             | Not available.         |
| <b>Flammability (solid, gas)</b>                    | Not applicable.        |
| <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 available.         |
| <b>Explosive limit - upper (%)</b>                  | Not available.         |
| <b>Vapor pressure</b>                               | Not available.         |
| <b>Vapor density</b>                                | Not available.         |
| <b>Relative density</b>                             | 1.7                    |
| <b>Solubility(ies)</b>                              |                        |
| <b>Solubility (water)</b>                           | Not available.         |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.         |
| <b>Auto-ignition temperature</b>                    | Not available.         |
| <b>Decomposition temperature</b>                    | Not available.         |
| <b>Viscosity</b>                                    | Not available.         |

## 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>                | Avoid temperatures exceeding the flash point. 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

**Inhalation** May cause damage to organs through prolonged or repeated exposure by inhalation.

**Skin contact** Causes skin irritation.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

**Eye contact** Causes serious eye irritation.

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

### Information on toxicological effects

**Acute toxicity** Not known.

**Components** **Species** **Test Results**

Diethylene Glycol Monomethyl Ether (CAS 111-77-3)

**Acute**

**Dermal**

LD50 Rabbit 6540 mg/kg

**Oral**

LD50 Rat 5500 mg/kg

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)

**Acute**

**Dermal**

LD50 Rabbit 400 mg/kg

**Inhalation**

LC50 Rat 486 ppm, 4 Hours

**Oral**

LD50 Rat 560 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Canada - Alberta OELs: Irritant**

Ethylene Glycol Monobutyl Ether (CAS 111-76-2) Irritant

Titanium Dioxide (CAS 13463-67-7) Irritant

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Risk of cancer cannot be excluded with prolonged exposure.

**ACGIH Carcinogens**

Ethylene Glycol Monobutyl Ether (CAS 111-76-2) A3 Confirmed animal carcinogen with unknown relevance to humans.

Ferric Oxide (CAS 1309-37-1) A4 Not classifiable as a human carcinogen.

Titanium Dioxide (CAS 13463-67-7) A4 Not classifiable as a human carcinogen.

**Canada - Manitoba OELs: carcinogenicity**

Ethylene Glycol Monobutyl Ether (CAS 111-76-2) Confirmed animal carcinogen with unknown relevance to humans.

Ferric Oxide (CAS 1309-37-1) Not classifiable as a human carcinogen.

Titanium Dioxide (CAS 13463-67-7) Not classifiable as a human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Ethylene Glycol Monobutyl Ether (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

Ferric Oxide (CAS 1309-37-1) 3 Not classifiable as to carcinogenicity to humans.

Titanium Dioxide (CAS 13463-67-7) 2B Possibly carcinogenic to humans.

**Reproductive toxicity** Suspected of damaging the unborn child.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Causes damage to organs through prolonged or repeated exposure. May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Prolonged exposure may cause chronic effects.

## 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.

| Product                              | Species | Test Results |                                    |
|--------------------------------------|---------|--------------|------------------------------------|
| 896-1001 CHROMA-CHEM® RED IRON OXIDE | ARO     |              |                                    |
| <b>Aquatic</b>                       |         |              |                                    |
| Crustacea                            | EC50    | Daphnia      | 3957.8215 mg/l, 48 hours estimated |
| Fish                                 | LC50    | Fish         | 4214.6235 mg/l, 96 hours estimated |

| Components  | Species | Test Results                                   |                       |
|---|---------|--|-----------------------|
| Diethylene Glycol Monomethyl Ether (CAS 111-77-3) |         |  |                       |
| <b>Aquatic</b>                                    |         |  |                       |
| Fish  | LC50    | Bluegill ( <i>Lepomis macrochirus</i> )        | 7500 mg/l, 96 hours   |
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2)    |         |  |                       |
| <b>Aquatic</b>                                    |         |  |                       |
| Fish  | LC50    | Inland silverside ( <i>Menidia beryllina</i> ) | 1250 mg/l, 96 hours   |
| Titanium Dioxide (CAS 13463-67-7)                 |         |  |                       |
| <b>Aquatic</b>                                    |         |  |                       |
| Crustacea   | EC50    | Water flea ( <i>Daphnia magna</i> )            | > 1000 mg/l, 48 hours |
| Fish  | LC50    | Mummichog ( <i>Fundulus heteroclitus</i> )     | > 1000 mg/l, 96 hours |

\* Estimates for product may be based on additional component data not shown.

### Persistence and degradability

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

Ethylene Glycol Monobutyl Ether 0.83

**Mobility in soil** No data 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.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**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).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### TDG

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 established.

## 15. Regulatory information

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Controlled Drugs and Substances Act**

Not regulated.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**International regulations** Additional information is given in the Safety Data Sheet.**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**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)   | No                     |
| 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)  | No                     |
| 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                    |
| Taiwan                      | Taiwan Toxic Chemicals Substances Control Act                          | No                     |

\*A "Yes" indicates that all components of this product comply 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****Issue date** 02-13-2017**Revision date** 08-22-2017**Version #** 03

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**Revision information** This document has undergone significant changes and should be reviewed in its entirety.