This SDS packet was issued with item:
075230677

N/A
1. Identification

Product identifier: 866-1520 CHROMA-CHEM® TRANSPARENT BROWN OXIDE

Other means of identification
- SAP Specification: 00000139037
- Recommended use: Non-aqueous colorant
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

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

Canadian facility: Chromaflo Technologies Canada
235 Orenda Road
Brampton, Ontario, Canada L6T-1E6

US telephone: 440-997-5137
Canadian telephone: 905-451-3810

NA: EMERGENCY # (3E): 866-519-4752
GLOBAL: EMERG. # (3E): (+1) 760-476-3962
3E CONTRACT #: 12154
3E ACCESS CODE: 334294
CANADA: CANUTEC: 613-996-6666

Product Regulatory Services: ehs_americas@chromaflo.com

2. Hazard(s) identification

Physical hazards: Flammable liquids Category 3
Health hazards:
- Acute toxicity, dermal Category 4
- Skin corrosion/irritation Category 2
- Serious eye damage/eye irritation Category 2A
- Sensitization, skin Category 1
- Carcinogenicity Category 2
- Reproductive toxicity Category 2
- Specific target organ toxicity, repeated exposure Category 1 (central nervous system)

OSHA defined hazards: Not classified.

Label elements:
- Signal word: Danger
Hazard statement
Flammable liquid and vapor. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (central nervous system) 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Call a poison center/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage
Store in a well-ventilated place. Keep cool. Store locked up.

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

Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
90.918% of the mixture consists of component(s) of unknown acute dermal toxicity. 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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Oxide</td>
<td>1309-37-1</td>
<td>20 - 40</td>
<td></td>
</tr>
<tr>
<td>Stoddard solvent; Low boiling point naphtha - unspecified</td>
<td>8052-41-3</td>
<td>10 - 20</td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha</td>
<td>64742-89-8</td>
<td>2.5 - 10</td>
<td></td>
</tr>
<tr>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>78-83-1</td>
<td>1 - 2.5</td>
<td></td>
</tr>
<tr>
<td>butan-1-ol; n-butanol</td>
<td>71-36-3</td>
<td>1 - 2.5</td>
<td></td>
</tr>
<tr>
<td>isobutyl acetate</td>
<td>110-19-0</td>
<td>1 - 2.5</td>
<td></td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>123-86-4</td>
<td>1 - 2.5</td>
<td></td>
</tr>
<tr>
<td>Solvent Naphtha (petroleum), medium aliphatic</td>
<td>64742-88-7</td>
<td>1 - 2.5</td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>1 - 2.5</td>
<td></td>
</tr>
<tr>
<td>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime</td>
<td>96-29-7</td>
<td>0.1 - 1</td>
<td></td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
<td></td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>20 - 40</td>
<td></td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

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

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. 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 advice/attention if you feel unwell.

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Take off all contaminated clothing immediately. 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. Wash contaminated clothing before reuse.

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

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

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

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

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). 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. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Keep out of eyes, mouth, and clothing. Avoid breathing dust, fumes, or mists. Avoid contact with skin. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-1-ol; iso-butanol (CAS 78-83-1)</td>
<td>PEL</td>
<td>300 mg/m³</td>
<td></td>
</tr>
<tr>
<td>butan-1-ol; n-butanol (CAS 71-36-3)</td>
<td>PEL</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Ethyl benzene (CAS 100-41-4)</td>
<td>PEL</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Iron Oxide (CAS 1309-37-1)</td>
<td>PEL</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Isobutyl acetate (CAS 110-19-0)</td>
<td>PEL</td>
<td>700 mg/m³</td>
<td></td>
</tr>
<tr>
<td>n-Butyl acetate (CAS 123-86-4)</td>
<td>PEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha (CAS 64742-89-8)</td>
<td>PEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>Solvent Naphtha (petroleum), medium aliphatic (CAS 64742-88-7)</td>
<td>PEL</td>
<td>400 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Stoddard solvent; Low boiling point naphtha - unspecified (CAS 8052-41-3)</td>
<td>PEL</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>PEL</td>
<td>400 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

### US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Oxide (CAS 1309-37-1)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 mpcf</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mpcf</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-1-ol; iso-butanol (CAS 78-83-1)</td>
<td>TWA</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>butan-1-ol; n-butanol (CAS 71-36-3)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>Ethyl benzene (CAS 100-41-4)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>Iron Oxide (CAS 1309-37-1)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Isobutyl acetate (CAS 110-19-0)</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td>50 ppm</td>
<td></td>
</tr>
</tbody>
</table>
### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>Solvent Naphtha (petroleum), medium aliphatic (CAS 64742-88-7)</td>
<td>TWA</td>
<td>200 mg/m3</td>
<td>Non-aerosol.</td>
</tr>
<tr>
<td>Stoddard solvent; Low boiling point naphtha - unspecified (CAS 8052-41-3)</td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
</tr>
</tbody>
</table>

### US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-1-ol; iso-butanol (CAS 78-83-1)</td>
<td>TWA</td>
<td>150 mg/m3</td>
<td></td>
</tr>
<tr>
<td>butan-1-ol; n-butanol (CAS 71-36-3)</td>
<td>Ceiling</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>Ethyl benzene (CAS 100-41-4)</td>
<td>STEL</td>
<td>545 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>125 ppm</td>
<td></td>
</tr>
<tr>
<td>Iron Oxide (CAS 1309-37-1)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Dust and fume.</td>
</tr>
<tr>
<td>isobutyl acetate (CAS 110-19-0)</td>
<td>TWA</td>
<td>700 mg/m3</td>
<td></td>
</tr>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>950 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha (CAS 64742-89-8)</td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Stoddard solvent; Low boiling point naphtha - unspecified (CAS 8052-41-3)</td>
<td>Ceiling</td>
<td>1800 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>STEL</td>
<td>350 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>655 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>435 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ppm</td>
<td></td>
</tr>
</tbody>
</table>

### US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)</td>
<td>TWA</td>
<td>36 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 ppm</td>
</tr>
</tbody>
</table>
### Biological limit values

<table>
<thead>
<tr>
<th>ACGIH Biological Exposure Indices</th>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethyl benzene (CAS 100-41-4)</td>
<td>0.15 g/g</td>
<td>Sum of mandelic acid and phenylglyoxylic acid</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Xylene (CAS 1330-20-7)</td>
<td>1.5 g/g</td>
<td>Methylhippuric acids</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
</tbody>
</table>

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

### Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

**US - California OELs: Skin designation**
- butan-1-ol; n-butanol (CAS 71-36-3) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**
- butan-1-ol; n-butanol (CAS 71-36-3) Skin designation applies.

**US - Tennessee OELs: Skin designation**
- butan-1-ol; n-butanol (CAS 71-36-3) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**
- Solvent Naphtha (petroleum), medium aliphatic (CAS 64742-88-7) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**
- butan-1-ol; n-butanol (CAS 71-36-3) Can be absorbed through the skin.

**Appropriate engineering controls**
- Explosion-proof general and local exhaust ventilation. 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**
- If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. 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. When using do not 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. Contaminated work clothing should not be allowed out of the workplace.

### 9. Physical and chemical properties

**Appearance**

- **Physical state** Liquid.
- **Form** Liquid. Paste.
- **Color** Brown

**Odor**
- Petroleum distillate odor.

**Odor threshold**
- Not available.

**pH**
- Not available.

**Melting point/freezing point**
- Not available.

**Initial boiling point and boiling range**
- Not available.

**Flash point**
- 82.00 °F (27.78 °C)

**Evaporation rate**
- Not available.
Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits
Explosive limit - lower (%) Not available.
Explosive limit - upper (%) Not available.

Vapor pressure Not available.
Vapor density Not available.
Relative density 1.8

Solubility(ies)
Solubility (water) Not available.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.

Other information
Explosive properties Not explosive.
Oxidizing properties Not oxidizing.

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 Hazardous polymerization does not occur.
Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Hazardous decomposition products 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 Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
Eye contact Causes serious eye irritation.
Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects
Acute toxicity Harmful in contact with skin.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-1-ol; iso-butanol (CAS 78-83-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>3392 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>2.46 g/kg</td>
</tr>
<tr>
<td>butan-1-ol; n-butanol (CAS 71-36-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>3400 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>790 mg/kg</td>
</tr>
</tbody>
</table>
Components | Species | Test Results
---|---|---
**Ethyl benzene (CAS 100-41-4)**
  **Acute**
  Oral
  LD50  
  Rat  | 3500 mg/kg

**Xylene (CAS 1330-20-7)**
  **Acute**
  Oral
  LD50  
  Rat  | 3523 - 8600 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**
- **Respiratory sensitization**
  Not a respiratory sensitizer.
- **Skin sensitization**
  May cause an allergic skin reaction.
- **Germ cell mutagenicity**
  No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
- **IARC Monographs. Overall Evaluation of Carcinogenicity**
  Ethyl benzene (CAS 100-41-4)  | 2B Possibly carcinogenic to humans.
  Iron Oxide (CAS 1309-37-1) | 3 Not classifiable as to carcinogenicity to humans.
  Stoddard solvent; Low boiling point naphtha - unspecified (CAS 8052-41-3) | 3 Not classifiable as to carcinogenicity to humans.
  Xylene (CAS 1330-20-7) | 3 Not classifiable as to carcinogenicity to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens**
Not listed.

Not regulated.

**Reproductive toxicity**
Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.

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

**Specific target organ toxicity - repeated exposure**
Causes damage to organs (central nervous system) through prolonged or repeated exposure.

**Aspiration hazard**
Not an aspiration hazard.

**Chronic effects**
Causes damage to organs through prolonged or repeated exposure. 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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>866-1520 CHROMA-CHEM® TRANSPARENT BROWN OXIDE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
  **Aquatic**
  Crustacea  | EC50  | Daphnia  | 39.1707 mg/l, 48 hours estimated
  Fish  | LC50  | Fish  | 82.4551 mg/l, 96 hours estimated
|  
  **Components** |  
  2-butane oxide; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)  
  **Aquatic**
  Fish  | LC50  | Fathead minnow (Pimephales promelas)  | 777 - 914 mg/l, 96 hours

Material name: 866-1520 CHROMA-CHEM® TRANSPARENT BROWN OXIDE  
000000139037  
Version #: 06  
Revision date: 09-10-2018  
Issue date: 05-19-2015  
SDS US

Obtained by Global Safety Management, www.globalsafetynet.com (877) 683-7460
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2-methylpropan-1-ol; iso-butanol (CAS 78-83-1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia pulex)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Bleak (Alburnus alburnus)</td>
</tr>
<tr>
<td><strong>butan-1-ol; n-butanol (CAS 71-36-3)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
</tr>
<tr>
<td><strong>Ethyl benzene (CAS 100-41-4)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
</tr>
<tr>
<td><strong>n-butyl acetate (CAS 123-86-4)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
</tr>
<tr>
<td><strong>Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha (CAS 64742-89-8)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia pulex)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td><strong>Solvent Naphtha (petroleum), medium aliphatic (CAS 64742-88-7)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia pulex)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td><strong>Xylene (CAS 1330-20-7)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
</tr>
</tbody>
</table>

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

**Persistence and degradability**

**Bioaccumulative potential**

| Partition coefficient n-octanol / water (log Kow) | | |
| 2-methylpropan-1-ol; iso-butanol | 0.76 |
| butan-1-ol; n-butanol | 0.88 |
| Ethyl benzene | 3.15 |
| isobutyl acetate | 1.78 |
| n-butyl acetate | 1.78 |
| Stoddard solvent; Low boiling point naphtha - unspecified | 3.16 - 7.15 |
| Xylene | 3.12 - 3.2 |

**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.
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).

**Waste from residues / unused products**
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

#### DOT

- **UN number**: UN1263
- **UN proper shipping name**: Paint related material
- **Class**: 3
- **Subsidiary risk**: -
- **Label(s)**: 3
- **Packing group**: III
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Special provisions**: B1, B52, IB3, T2, TP1, TP29
- **Packaging exceptions**: 150
- **Packaging non bulk**: 173
- **Packaging bulk**: 242

#### BULK

- **UN number**: UN1263
- **UN proper shipping name**: Paint related material
- **Class**: 3
- **Label(s)**: 3
- **Packing group**: III
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Special provisions**: B1, B52, IB3, T2, TP1, TP29
- **Packaging exceptions**: 150
- **Packaging non bulk**: 173
- **Packaging bulk**: 242

#### IATA

- **UN number**: UN1263
- **UN proper shipping name**: Paint related material
- **Class**: 3
- **Subsidiary risk**: -
- **Packing group**: III
- **Environmental hazards**: No.
- **ERG Code**: 3L
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Other information**
  - **Passenger and cargo aircraft**: Allowed with restrictions.
  - **Cargo aircraft only**: Allowed with restrictions.

#### IMDG

- **UN number**: UN1263
- **UN proper shipping name**: PAINT RELATED MATERIAL
- **Class**: 3
- **Subsidiary risk**: -
- **Packing group**: III
- **Environmental hazards**: Marine pollutant No.
- **EmS**: F-E, S-E
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
15. Regulatory information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the US Hazard Communication Standard and the Canadian Hazardous Products Regulation.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

- 2-methylpropan-1-ol; iso-butanol (CAS 78-83-1) Listed.
- butan-1-ol; n-butanol (CAS 71-36-3) Listed.
- Ethyl benzene (CAS 100-41-4) Listed.
- isobutyl acetate (CAS 110-19-0) Listed.
- n-butyl acetate (CAS 123-86-4) Listed.
- Xylene (CAS 1330-20-7) Listed.

**SARA 304 Emergency release notification**

Not regulated.


Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

- Immediate Hazard - Yes
- Delayed Hazard - Yes
- Fire Hazard - Yes
- Pressure Hazard - No
- Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

- Yes

**SARA 313 (TRI reporting)**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>71-36-3</td>
<td>1 - 2.5</td>
</tr>
<tr>
<td>Xylene (mixed isomers)</td>
<td>1330-20-7</td>
<td>1 - 2.5</td>
</tr>
</tbody>
</table>
Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Ethyl benzene (CAS 100-41-4)
Xylene (CAS 1330-20-7)
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
Not regulated.
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
2-methylpropan-1-ol; iso-butanol (CAS 78-83-1) Low priority
butan-1-ol; n-butanol (CAS 71-36-3) Low priority
isobutyl acetate (CAS 110-19-0) Low priority
n-butyl acetate (CAS 123-86-4) Low priority
US state regulations
US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
Ethyl benzene (CAS 100-41-4) Listed: June 11, 2004
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Ethyl benzene (CAS 100-41-4)
Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha (CAS 64742-89-8)
Stoddard solvent; Low boiling point naphtha - unspecified (CAS 8052-41-3)
Xylene (CAS 1330-20-7)
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>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
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<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
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<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>
<tr>
<td>Taiwan</td>
<td>Taiwan Toxic Chemicals Substances Control Act</td>
<td>No</td>
</tr>
</tbody>
</table>

*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, including date of preparation or last revision
Issue date 05-19-2015
Revision date 09-10-2018
Version # 06
Disclaimer
The information contained herein is based on data believed to be reliable and the manufacturer disclaims any liability incurred from the use or reliance upon the same. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety information is not a license to use this material as claimed by any patents of third parties. The user alone must finally determine whether a contemplated use of this material will infringe any such patents, and for obtaining any required licenses.
Revision information

Hazard(s) identification: Prevention
Hazard(s) identification: Supplemental information
Composition/information on ingredients: Composition comments
Composition/information on ingredients: Component information
Accidental release measures: Personal precautions, protective equipment and emergency procedures
Handling and storage: Precautions for safe handling
Toxicological information: Mutagenicity
HazReg Data: International Inventories
GHS: Classification