SAFETY DATA SHEET

1. Identification

Material name: LIQUID COLOR DISPERSIONS - 1QT PHLY BLUE
Material: CLDI O032 570

Recommended use and restriction on use
- Recommended use: Pigment
- Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards
- Carcinogenicity: Category 2

Unknown toxicity - Health
- Acute toxicity, oral: 30.28 %
- Acute toxicity, dermal: 48.01 %
- Acute toxicity, inhalation, vapor: 100 %
- Acute toxicity, inhalation, dust or mist: 100 %

Unknown toxicity - Environment
- Acute hazards to the aquatic environment: 90.67 %
- Chronic hazards to the aquatic environment: 100 %

Label Elements

Hazard Symbol:

Signal Word: Warning
Hazard Statement: Suspected of causing cancer.
Precautionary Statement:
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: If exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>7 - 13%</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>7 - 13%</td>
</tr>
<tr>
<td>Copper phthalocyanine</td>
<td>147-14-8</td>
<td>3 - 7%</td>
</tr>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>1 - 5%</td>
</tr>
</tbody>
</table>

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

4. First-aid measures

Ingestion: Rinse mouth thoroughly.

Inhalation: Move to fresh air.

Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Eye contact: Rinse immediately with plenty of water.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.
Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

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

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters
Occupational Exposure Limits
<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Black - Inhalable fraction.</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>PEL</td>
<td>3.5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Copper phthalocyanine - Fume. - as Cu</td>
<td>TWA</td>
<td>0.2 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2014)</td>
</tr>
<tr>
<td>Copper phthalocyanine - Dust and mist. - as Cu</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2014)</td>
</tr>
<tr>
<td>Talc - Respirable fraction.</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>Talc</td>
<td>TWA</td>
<td>20 millions of particles per cubic foot of air</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td>Talc - Respirable.</td>
<td>TWA</td>
<td>2.4 millions of particles per cubic foot of air</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td>Talc - Total dust.</td>
<td>TWA</td>
<td>0.3 mg/m³</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td>Chemical name</td>
<td>type</td>
<td>Exposure Limit Values</td>
<td>Source</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------</td>
<td>-----------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Propylene glycol - Aerosol.</td>
<td>TWAEV</td>
<td>10 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Propylene glycol - Vapor and aerosol, inhalable fraction.</td>
<td>TWAEV</td>
<td>50 ppm 155 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Carbon Black - Inhalable</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>TWAEV</td>
<td>3.5 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>TWA</td>
<td>3.5 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
<tr>
<td>Talc - Respirable.</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Talc - Respirable particles.</td>
<td>TWAEV</td>
<td>2 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Talc</td>
<td>TWAEV</td>
<td>2 fibers/mL</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Talc - Respirable dust.</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
</tbody>
</table>

**Appropriate Engineering Controls**

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

**Individual protection measures, such as personal protective equipment**

**General information:**
Use personal protective equipment as required.

**Eye/face protection:**
Wear goggles/face shield.

**Skin Protection**

**Hand Protection:**
Use suitable protective gloves if risk of skin contact.

**Other:**
No data available.

**Respiratory Protection:**
In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

**Appearance**

- **Physical state:** liquid
- **Form:** liquid
- **Color:** Blue
- **Odor:** Mild
- **Odor threshold:** No data available.
- **pH:** No data available.
- **Melting point/freezing point:** No data available.
- **Initial boiling point and boiling range:** No data available.
- **Flash Point:** No data available.
- **Evaporation rate:** Slower than Ether
- **Flammability (solid, gas):** No

**Upper/lower limit on flammability or explosive limits**

- **Flammability limit - upper (%):** No data available.
- **Flammability limit - lower (%):** No data available.
- **Explosive limit - upper (%):** No data available.
- **Explosive limit - lower (%):** No data available.

**Vapor pressure:** No data available.

**Vapor density:** Vapors are heavier than air and may travel along the floor and in the bottom of containers.

**Relative density:** 1.5

**Solubility(ies)**

- **Solubility in water:** Practically Insoluble
- **Solubility (other):** No data available.

**Partition coefficient (n-octanol/water):** No data available.

**Auto-ignition temperature:** No data available.

**Decomposition temperature:** No data available.

**Viscosity:** No data available.

10. Stability and reactivity

**Reactivity:** No data available.

**Chemical Stability:** Material is stable under normal conditions.

**Possibility of Hazardous Reactions:** No data available.

**Conditions to Avoid:** Avoid heat or contamination.

**Incompatible Materials:** Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
11. Toxicological information

Information on likely routes of exposure

**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.

**Inhalation:** In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

**Skin Contact:** Moderately irritating to skin with prolonged exposure.

**Eye contact:** Eye contact is possible and should be avoided.

Information on toxicological effects

**Acute toxicity (list all possible routes of exposure)**

**Oral**

- **Product:** No data available.

**Dermal**

- **Product:** ATEmix: 11,148.93 mg/kg

**Inhalation**

- **Product:** No data available.

**Specified substance(s):**

- Propylene glycol: LC 50 (Rabbit, 2 h): > 317,042 mg/m3
- Carbon Black: LC 0 (Rat, 4 h): > 10 mg/m3

**Repeated dose toxicity**

- **Product:** No data available.

**Skin Corrosion/Irritation**

- **Product:** No data available.

**Serious Eye Damage/Eye Irritation**

- **Product:** No data available.

**Specified substance(s):**

- Propylene glycol: (Human): Irritating
- Carbon Black: in vivo (Rabbit, 24 - 72 hrs): Not irritating
- Copper phthalocyanine: in vivo (Rabbit, 24 - 72 hrs): Not irritating

**Respiratory or Skin Sensitization**
Product: No data available.

Carcinogenicity

Product: Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Carbon Black
Overall evaluation: Possibly carcinogenic to humans.

Talc
Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:
Fish
Product: No data available.

Specified substance(s): Propylene glycol
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 55,770 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s): Propylene glycol
EC 50 (Water flea (Daphnia magna), 48 h): > 10,000 mg/l Intoxication
EC 50 (Water flea (Daphnia magna), 24 h): > 10,000 mg/l Intoxication
LC 50 (Brine shrimp (Artemia salina), 24 h): > 10,000 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s): Propylene glycol
NOAEL (Pimephales promelas, 7 d): 11,530 mg/l experimental result
Carbon Black
NOAEL (Salmo sp., 30 d): 17 mg/l QSAR

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s): Propylene glycol
Log Kow: -0.92

Mobility in Soil: No data available.
Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG: Not Regulated

CFR / DOT: Not Regulated

IMDG: Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper phthalocyanine</td>
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</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<table>
<thead>
<tr>
<th>Chemical Identity</th>
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</tr>
</thead>
</table>
SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Copper phthalocyanine</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Talc</td>
<td>500 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US, California Proposition 65
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US, New Jersey Worker and Community Right-to-Know Act

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US, Massachusetts RTK - Substance List

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</thead>
<tbody>
<tr>
<td>Carbon Black</td>
<td></td>
</tr>
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<td>Talc</td>
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</tbody>
</table>

US, Pennsylvania RTK - Hazardous Substances

<table>
<thead>
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<tr>
<td>Talc</td>
<td></td>
</tr>
</tbody>
</table>

US, Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

| Regulatory VOC (less water and exempt solvent): | 67 g/l |
| VOC Method 310:                                 | 2.61%  |

Inventory Status:

Australia AICS: One or more components in this product are not listed on or exempt from the Inventory.

Canada DSL Inventory List: All components in this product are listed on or
exempt from the Inventory.

EINECS, ELINCS or NLP: One or more components in this product are not listed on or exempt from the Inventory.

Japan (ENCS) List: One or more components in this product are not listed on or exempt from the Inventory.

China Inv. Existing Chemical Substances: One or more components in this product are not listed on or exempt from the Inventory.

Korea Existing Chemicals Inv. (KECI): One or more components in this product are not listed on or exempt from the Inventory.

Canada NDSL Inventory: One or more components in this product are not listed on or exempt from the Inventory.

Philippines PICCS: One or more components in this product are not listed on or exempt from the Inventory.

US TSCA Inventory: All components in this product are listed on or exempt from the Inventory.

New Zealand Inventory of Chemicals: One or more components in this product are not listed on or exempt from the Inventory.

Japan ISHL Listing: One or more components in this product are not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing: One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date: 08/04/2015
Version #: 1.0
Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.