SAFETY DATA SHEET

1. Identification

Material name: LIQUID COLOR DISPERSIONS - 1QT WHITE
Material: CLDI O032 970

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
Acute toxicity (Inhalation - dust and mist) Category 4
Carcinogenicity Category 2

Unknown toxicity - Health
Acute toxicity, oral 28.8 %
Acute toxicity, dermal 80.4 %
Acute toxicity, inhalation, vapor 100 %
Acute toxicity, inhalation, dust or mist 93 %

Unknown toxicity - Environment
Acute hazards to the aquatic environment 46.6 %
Chronic hazards to the aquatic environment 100 %

Label Elements

Hazard Symbol:

Signal Word: Warning
Hazard Statement: Harmful if inhaled. Suspected of causing cancer.

Precautionary Statement:
Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

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>Titanium dioxide</td>
<td>13463-67-7</td>
<td>40 - 70%</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>7 - 13%</td>
</tr>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>7 - 13%</td>
</tr>
<tr>
<td>Aluminum hydroxide</td>
<td>21645-51-2</td>
<td>7 - 13%</td>
</tr>
<tr>
<td>Silica</td>
<td>112926-00-8</td>
<td>7 - 13%</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: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

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: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

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>Titanium dioxide</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>Titanium dioxide - Total dust.</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</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>Aluminum hydroxide - Respirable fraction.</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>Silica</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>Silica</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>Silica</td>
<td>TWA</td>
<td>0.8 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>Titanium dioxide - Total dust.</td>
<td>TWA</td>
<td>10 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>Titanium dioxide - Respirable fraction.</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) (07 2007)</td>
</tr>
<tr>
<td>Titanium dioxide</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 - Aerosol.</td>
<td>TWA</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>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>3 mg/m3</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
<tr>
<td>Aluminum hydroxide - Respirable.</td>
<td>TWA</td>
<td>1 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>Aluminum hydroxide - Respirable fraction.</td>
<td>TWAEV</td>
<td>1 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>- Total</td>
<td>TWA</td>
<td>4 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>- Respirable.</td>
<td>TWA</td>
<td>1.5 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>
</tbody>
</table>
Table:

<table>
<thead>
<tr>
<th>Exposure Limit</th>
<th>Concentration</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<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>TWA</td>
<td>6 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:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

**Eye/face protection:**

Wear safety glasses with side shields (or goggles).

**Skin Protection**

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

- **Other:** Wear suitable protective clothing.

**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:** White

**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: 2.02

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).
Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

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: May be harmful in contact with skin.
- 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: 4,454.55 mg/kg

**Inhalation**
- Product: ATEmix: 2.3 mg/l

Repeated dose toxicity
- Product: No data available.

Skin Corrosion/Irritation
- Product: No data available.

Specified substance(s):
- Titanium dioxide in vivo (Rabbit, 24 - 72 hrs): Not irritating
- Propylene glycol (Human): Irritating
- Aluminum hydroxide in vivo (Rabbit, 24 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:
- Titanium dioxide: 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
- **Product:** No data available.

12. Ecological information

Ecotoxicity:

**Acute hazards to the aquatic environment:**

**Fish**
- **Product:** No data available.

- **Specified substance(s):**
  - Titanium dioxide: LC 50 (Mummichog (Fundulus heteroclitus), 96 h): > 1,000 mg/l Mortality
  - Propylene glycol: LC 50 (Fathead minnow (Pimephales promelas), 96 h): 55,770 mg/l Mortality

**Aquatic Invertebrates**
- **Product:** No data available.

- **Specified substance(s):**
  - Titanium dioxide: EC 50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l Intoxication
  - 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):
Titanium dioxide  LC 0 (Coregonus autumnalis migratorius G., 30 d): 3 mg/l experimental result
Propylene glycol  NOAEL (Pimephales promelas, 7 d): 11,530 mg/l experimental result
Aluminum hydroxide  LOAEL (Pimephales promelas, 28 d): 53.8 mg/l experimental result

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):
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard

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

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Talc</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Aluminum hydroxide</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Silica</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
Chemical Identity
Titanium dioxide
Propylene glycol
Talc
Silica

US. Massachusetts RTK - Substance List
Chemical Identity
Titanium dioxide
Talc
Silica

US. Pennsylvania RTK - Hazardous Substances
Chemical Identity
Titanium dioxide
Propylene glycol
Talc
Silica

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

Other Regulations:

Regulatory VOC (less water and exempt solvent): 72 g/l
VOC Method 310: 2.49 %

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: One or more components in this product are not 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.