# SAFETY DATA SHEET

***Date of issue:*** *05/18/2015*
***Date of previous issue:*** *05/08/2015*

World Leader in Resin Technology

## Section 1. Identification

**Product name** CT-20457

**Product type** Color Paste

**Chemical family** Coloring material.

**MSDS no.** NA-1505:2234 (Version: 1.1)

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses** Used in the manufacture of thermoset plastic parts.

**Uses advised against** No additional information.

**Supplier's details**

AOC, LLC
955 Highway 57 East
Collierville, TN 38017
Website: www.aoc-resins.com
Phone Number: (901) 854-2800
Hours: 8AM-5pm (Central Time) Mon-Friday

**Emergency telephone number (with hours of operation)**

**CHEMTREC (US):** 24 hours/7 days (800) 424-9300
**CANUTEC (Canada):** 24 hours/7 days (613) 996-6666

## Section 2. Hazards identification

**OSHA/HCS status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture**

Acute toxicity – Oral – Category 4, H302
Acute toxicity – Inhalation – Category 4, H332
Skin irritation – Category 2, H315
Eye irritation – Category 2B, H320

**GHS label elements**

**Hazard pictograms**



**Signal word**

Warning

**Hazard statements**

H302: Harmful if swallowed.
H332: Harmful if inhaled.
H315: Causes skin irritation.
H320: Causes eye irritation.

**Precautionary statements**

**General**

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.

**Prevention**

## Section 2. Hazards identification

P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P261: Do not breathe vapor or mist.

**Response**

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P362 + P364: Take off contaminated clothing and wash before reuse.
P332 + P313: If skin irritation occurs: Get medical attention.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical attention.
P301 + P312: IF SWALLOWED:Call a POISON CENTER or doctor/physician if you feel unwell.
P330: Rinse mouth.
P391: Collect spillage.

**Storage**

P403 + P235: Store in a well-ventilated place. Keep cool.
P233: Keep container tightly closed.
P405: Store locked up.

**Disposal**

P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified**

None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

| Ingredient name | CAS number | % |
|---|---|---|
| Titanium Dioxide | 13463-67-7 | ≥10 - <25 |
| Silica, Amorphous | 7631-86-9 | ≥1 - <3 |

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

**Description of necessary first aid measures**

**Eye contact**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. If irritation persists, get medical attention.

**Inhalation**

Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Skin contact**

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion**

Wash out mouth with water. Remove dentures if any. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Seek immediate medical attention.

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

**Eye contact**

May cause eye irritation.

**Inhalation**

No known significant effects or critical hazards.

## Section 4. First aid measures

### Skin contact

May cause skin irritation.

### Ingestion

Irritating to mouth, throat and stomach.

### Over-exposure signs/symptoms

### Eye contact

Adverse symptoms may include the following: pain or irritation, watering, redness.

### Inhalation

Adverse symptoms may include the following: respiratory tract irritation, coughing.

### Skin contact

Adverse symptoms may include the following: irritation, redness.

### Ingestion

Adverse symptoms may include the following: Irritating to mouth, throat and stomach..

### Indication of immediate medical attention and special treatment needed, if necessary

### Notes to physician

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**See toxicological information (Section 11)**

## Section 5. Fire-fighting measures

### Extinguishing media

### Suitable extinguishing media

Use dry chemical, $CO_2$, water spray (fog) or foam.

### Unsuitable extinguishing media

None known.

### Specific hazards arising from the chemical

No specific fire or explosion hazard.

### Hazardous thermal decomposition products

No specific data.

### Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Provide adequate ventilation.

### For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. See also the information in "For non-emergency personnel".

### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

### Small spill

## Section 6. Accidental release measures

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

### Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Segregate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Refer to the product label and/or technical data sheet for further information.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| Titanium Dioxide | **ACGIH TLV (United States, 3/2012).**<br>TWA: 10 mg/m³ 8 hours. Form:<br>**OSHA PEL (United States, 6/2010).**<br>TWA: 15 mg/m³ 8 hours. Form: Total dust |
| Silica, Amorphous | **NIOSH REL (United States, 6/2009).**<br>TWA: 6 mg/m³ 10 hours. |

#### Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

## Section 8. Exposure controls/personal protection

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



## Section 9. Physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Paste/Dispersion. |
| **Color** | Yellow. |
| **Odor** | Mild. |
| **Odor threshold** | Not established. |
| **pH** | *Not applicable.* |
| **Melting point** | Not available. |
| **Boiling point** | >400°F / >204°C |
| **Flash point** | 240°F / 116°C |
| **Evaporation rate** | Not established. |
| **Flammability (solid, gas)** | *Not applicable.* |
| **Lower and upper explosive (flammable) limits** | Not available. |
| **Vapor pressure** | Not established. |
| **Vapor density** | Not established. |
| **Relative density** | 1.0 to 2.1 (Water = 1) |
| **Solubility** | Negligible. |
| **Partition coefficient: n-octanol/water** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Molecular weight** | Not available. |

## Section 10. Stability and reactivity

**Reactivity**

No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**

The product is stable. Stable under recommended storage and handling conditions (see Section 7).

**Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**

Not applicable.

**Incompatible materials**

No specific information is available in our database.

**Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Titanium Dioxide | LD50 Oral | Rat | >10000 mg/kg | - |

#### Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| Titanium Dioxide | Skin - Mild irritant | Human | - | 72 hours 300 Micrograms Intermittent | - |
| Silica, Amorphous | Eyes - Mild irritant | Rabbit | - | 24 hours 25 milligrams | - |

#### Sensitization

No data on skin sensitization due to this product.

#### Carcinogenicity

##### Classification

| Product/ingredient name | ACGIH | IARC | NTP |
|---|---|---|---|
| Titanium Dioxide | - | 2B | - |
| Silica, Amorphous | - | 3 | - |

#### Mutagenicity

No mutagenic effect.

#### Reproductive toxicity

Not considered to be toxic to the reproductive system.

#### Teratogenicity

No known effect according to our database..

#### Specific target organ toxicity (single exposure)

No known effect according to our database.

#### Specific target organ toxicity (repeated exposure)

No known effect according to our database.

#### Aspiration hazard

No known effect according to our database.

### Potential acute health effects

#### Eye contact

May cause eye irritation.

#### Inhalation

No known significant effects or critical hazards.

#### Skin contact

May cause skin irritation.

#### Ingestion

Irritating to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

#### Eye contact

Adverse symptoms may include the following: pain or irritation, watering, redness.

#### Inhalation

Adverse symptoms may include the following: respiratory tract irritation, coughing.

#### Skin contact

Adverse symptoms may include the following: irritation, redness.

#### Ingestion

Adverse symptoms may include the following: Irritating to mouth, throat and stomach..

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Titanium Dioxide | Acute EC50 5.83 mg/l Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours |
| | Acute LC50 >10 mg/l Fresh water | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute LC50 5.5 ppm Fresh water | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| | Chronic NOEC 0.984 mg/l Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours |

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

#### Soil/water partition coefficient ($K_{OC}$)

Not available.

#### Other adverse effects

No known effect according to our database.

## Section 13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid disposal. Attempt to use product completely in accordance with intended use. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

#### Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

### DOT / TDG/ IMDG/IMO / ICAO/IATA and National regulations.

**UN number** Not regulated.

**Proper shipping name** Not regulated.

**Transport hazard class(es)** Not regulated.



**Packing group** Not regulated.

**Environmental hazards** Marine pollutant: No.

**Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Additional information** US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.

## Section 14. Transport information

**IMDG** No additional information.

**IATA** No additional information.

## Section 15. Regulatory information

**Inventories (National and International)**

**United States inventory (TSCA 8b)** : All components are listed or exempted.

**Australia** : Not determined.

**Canada** : All components are listed or exempted.

**China** : Not determined.

**Europe** : All components are listed or exempted.

**New Zealand** : Not determined.

**Philippines** : Not determined.

**Japan** : Not determined.

**Malaysia** : Not determined.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : Not determined.

**SARA 311/312**

**Composition/information on ingredients**

| Name | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|---|---|---|---|---|
| Titanium Dioxide<br>Silica, Amorphous | No.<br>No. | No.<br>No. | No.<br>No. | No.<br>Yes. | Yes.<br>No. |

**SARA 313**

| | Product name | CAS number |
|---|---|---|
| **Form R - Reporting requirements** | Bismuth vanadium oxide | 14059-33-7 |

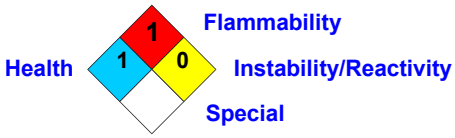
**State regulations**

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

## Section 16. Other information

**National Fire Protection Association (U.S.A.)**




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**History**

**Date of issue** : 05/18/2015

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**Version** : 1.1

AOC Corporate Regulatory Affairs

## Section 16. Other information

**Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

**Indicates information that has changed from previously issued version.**

**Notice to reader**

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