# DCL Hybrid 4754

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Issue date: 3/18/2020 Revision date: 10/30/2026 Supersedes: 3/18/2020 Version: 1.1

## SECTION 1 Identification

### 1.1. Product identifier

| | | |
|---|---|---|
| Product form | : | Mixture |
| Trade name | : | DCL Hybrid 4754 |
| CAS-No. | : | Hybrid |
| Product code | : | 100036 |

### 1.2. Other means of identification

| | | |
|---|---|---|
| Other means of identification | : | DCC Red 4754 |
| EC-No. | : | Hybrid |

### 1.3. Recommended use of the chemical and restrictions on use

| | | |
|---|---|---|
| Use of the substance/mixture | : | Pigment,Coloring agents |
| Recommended use | : | Pigment,Coloring agents |

### 1.4. Supplier's details

**Supplier**
DCL Corporation (Pigments Services Inc)
1506 Bushy Park Road
Goose Creek, South Carolina
USA, 29445
T +1 416 791-4200
SDS@pigments.com - pigments.com

### 1.5. Emergency phone number

| | | |
|---|---|---|
| Emergency number | : | +1 800 424-9300; +1-703-527-3887 (CHEMTREC, CCN12891) 24 hours, 7 days a week |

## SECTION 2 Hazard Identification

### 2.1. Classification of the substance or mixture

**GHS US classification**

Not classified

### 2.2. Label elements

**GHS US labeling**

No labeling applicable

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

| | | |
|---|---|---|
| Other hazards which do not result in classification | : | Not known. |

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| Bismuth vanadium oxide (BiVO4) | CAS-No.: 14059-33-7 | - | Not classified |
| Sulfuric acid, barium salt (1:1) | CAS-No.: 7727-43-7 | - | Not classified |
| Colourant | CAS-No.: Proprietary | - | Not classified |

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Move to fresh air. Seek medical attention if you feel unwell or if exposure prolonged.

First-aid measures after skin contact : Wash affected skin with soap and plenty of water. Remove contaminated clothing.

First-aid measures after eye contact : Rinse immediately with plenty of water for at least 10 minutes taking care to wash under the eyelids.

First-aid measures after ingestion : If swallowed, rinse mouth. Consult a doctor/medical service.

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

No additional information available

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

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam, Dry Powder, Water Spray.

Unsuitable extinguishing media : Carbon Dioxide.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Thermal decomposition or burning may release toxic gases/vapours.

Explosion hazard : Product is not explosive when subjected to the effect of heat.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Full protective clothing. Wear a self-contained breathing apparatus.

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

Protective equipment : Avoid inhalation and ingestion. Avoid contact with skin, eyes and clothing.

**For emergency responders**

Protective equipment : Full protective clothing. Wear a self-contained breathing apparatus.

Environmental precautions : Prevent contamination of soil, drains and surface waters.

### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Vacuum with high efficiency filter or use wet clean up technique to avoid dusting. Take up mechanically and collect in suitable container (adequately labelled) for disposal. Collect waste in suitable containers, which can be labelled and sealed. Do not wash indiscriminately down the drains. Wear self-contained breathing apparatus. Wear suitable protective equipment.

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Handle and open container with care. Avoid dust formation and ignition sources. Dust clouds from finely particulated pigments may be hazardous (dust explosion risk). Listed product is not sensitive to static discharge. There is potential for build up of static discharge in packaging during transit, handling and charging of pigment into vessels. Accordingly, appropriate safety procedures should be followed and grounding of equipment is recommended.

Hygiene measures : Wash thoroughly after handling and before eating, drinking or smoking. Do not eat, drink or smoke at the workplace.

Additional hazards when processed : Processing machines must be fitted with local exhaust ventilation.

### 7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep containers tightly closed in a dry, cool and well ventilated place.

Storage area : Keep away from heat and sources of ignition.

Specific end uses : Restricted to professional users.

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

| **Sulfuric acid, barium salt (1:1) (7727-43-7)** | |
|---|---|
| **USA - ACGIH® - Threshold Limit Values** | |
| Local name | Barium sulfate |
| ACGIH® TLV® TWA | 5 mg/m³ (Inhalable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica) |
| Remark (ACGIH®) | TLV® Basis: Pneumoconiosis |
| Regulatory reference | ACGIH 2022 |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Barium sulfate |
| OSHA PEL TWA | 15 mg/m³ (Total dust)<br>5 mg/m³ (Respirable fraction) |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Measure concentrations regularly, and at the time of any change occurring in conditions likely to have consequences on workers exposure.

### 8.3. Individual protection measures, such as personal protective equipment

**Hand protection:**

| Type | Material | Permeation | Thickness (mm) | Penetration |
|---|---|---|---|---|
| Protective gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | >0.35mm | |
| Wear suitable gloves resistant to chemical penetration | | | | |

**Eye protection:**

Chemical goggles or safety glasses

| Type | Field of application | Characteristics |
|---|---|---|
| Safety glasses | Dust | With side shields |

**Skin and body protection:**

Wear suitable protective clothing

**Type**

Plastic apron or overall

**Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

| Device | Filter type | Condition |
|---|---|---|
| Dust mask | Type P3, Particle filter | Dust protection |

**Personal protective equipment symbol(s):**

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Solid |
| Appearance | : | Powder. |
| Color | : | Red |
| Odor | : | Odourless |
| Odor threshold | : | No data available |
| pH | : | 6 – 9.5 (100 g/l, 20°C) (as suspension) |
| Melting point | : | > 300 °C |
| Freezing point | : | Not applicable |
| Boiling point | : | Not applicable |
| Flash point | : | Not applicable |

| | | |
|---|---|---|
| Relative evaporation rate (butyl acetate=1) | : | Not applicable |
| Relative evaporation rate (ether=1) | : | Not applicable |
| Flammability (solid, gas) | : | Not applicable |
| Vapor pressure | : | Not applicable |
| Vapor pressure at 50°C | : | Not applicable |
| Relative vapor density at 20°C | : | Not applicable |
| Relative density | : | No data available |
| Solubility | : | Insoluble.<br>Water: Insoluble |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Auto-ignition temperature | : | > 400 °C |
| Decomposition temperature | : | > 400 °C Lütolf's method |
| Viscosity, kinematic | : | Not applicable |
| Viscosity, dynamic | : | Not applicable |
| Explosion limits | : | Not explosive |
| Explosive properties | : | Non explosive. |
| Oxidizing properties | : | Not applicable. |
| Particle characteristics | : | No data available |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

Product is chemically stable and generally compatible with other substances when stored and handled as prescribed.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Product is chemically stable and generally compatible with other substances.

### 10.4. Conditions to avoid

Avoid electrostatic discharge.

### 10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

### 10.6. Hazardous decomposition products

Thermal decomposition or burning may release toxic gases/vapours.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

| | | |
|---|---|---|
| Acute toxicity (oral) | : | Not classified |
| Acute toxicity (dermal) | : | Not classified |
| Acute toxicity (inhalation) | : | Not classified |

| DCL Hybrid 4754 (Hybrid) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg body weight (OECD 401 method) |

| DCL Hybrid 4754 (Hybrid) | |
|---|---|
| LD50 dermal rat | No data available |
| LC50 Inhalation - Rat | > 5.15 mg/l OECD 403 |

| Bismuth vanadium oxide (BiVO4) (14059-33-7) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
| LC50 Inhalation - Rat | > 5.15 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rat | > 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, Rat, Read-across, Dermal) |

Skin corrosion/irritation : Not classified
pH: 6 – 9.5 (100 g/l, 20°C) (as suspension)

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| pH | No data available in the literature |

Serious eye damage/irritation : Not classified
pH: 6 – 9.5 (100 g/l, 20°C) (as suspension)

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| pH | No data available in the literature |

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| NOAEL (chronic,oral,animal/male,2 years) | 60 mg/kg body weight Animal: rat, Animal sex: male, Remarks on results: other: |
| NOAEL (chronic,oral,animal/female,2 years) | 75 mg/kg body weight Animal: rat, Animal sex: female, Remarks on results: other: |

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

| DCL Hybrid 4754 (Hybrid) | |
|---|---|
| LOAEC (inhalation, rat, dust/mist/fume, 90 days) | 0.7 mg/m³ air OECD 413 (dust) |

| Bismuth vanadium oxide (BiVO4) (14059-33-7) | |
|---|---|
| LOAEC (inhalation, rat, dust/mist/fume, 90 days) | 0.0007 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |
| NOAEC (inhalation,rat,dust/mist/fume,90 days) | 0.0001 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |

Aspiration hazard : Not applicable

| DCL Hybrid 4754 (Hybrid) | |
|---|---|
| Viscosity, kinematic | Not applicable |
| **Sulfuric acid, barium salt (1:1) (7727-43-7)** | |
| Viscosity, kinematic | Not applicable (solid) |

Other information : The mixture has not been tested. The information is based on known data for the individual components. Skin/Eye Irritation determined according to old protocols converted to OECD/EC rating.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

| Bismuth vanadium oxide (BiVO4) (14059-33-7) | |
|---|---|
| LC50 - Fish [1] | > 10000 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | > 100 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| Additional information | Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations |

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| LC50 - Fish [1] | > 174 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 32 mg/l |
| EC50 72h - Algae [2] | > 30.07 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 96h - Algae [1] | 1890.263 mg/l Source: ECOSAR |
| ErC50 algae | > 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration) |

### 12.2. Persistence and degradability

| DCL Hybrid 4754 (Hybrid) | |
|---|---|
| Persistence and degradability | No data available. As the substance is highly insoluble in water, according to section 9.2.2.1, column 2 of REACH Annex VIII, the study does not need to be conducted. |
| Biodegradation | No data available. The mixture is insoluble in water. Biodegradation is not expected. |

| Bismuth vanadium oxide (BiVO4) (14059-33-7) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |

| Colourant (Proprietary) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

### 12.3. Bioaccumulative potential

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| BCF - Fish [1] | 1.2 – 74.4 l/kg (Lepomis macrochirus, Fresh water, Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

### 12.4. Mobility in soil

| Sulfuric acid, barium salt (1:1) (7727-43-7) | |
|---|---|
| Surface tension | No data available in the literature |
| Ecology - soil | No (test)data on mobility of the substance available. |

### 12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

Other information : The mixture has not been tested. The information is based on known data for the individual components. Barely Water Soluble Product (Not Tested). May be eliminated from water by chemical flocculation. May be separated largely mechanically in sewage treatment plants. Do not discharge product uncontrolled into the environment.

## SECTION 13 Disposal considerations

Regional waste regulation : Dispose of in accordance with national, state and local regulations.
Additional information : Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

## SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

### 14.1. UN number

UN-No. (DOT) : Not applicable
UN-No. (TDG) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable

### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

### 14.3. Transport hazard class(es)

**DOT**
Transport hazard class(es) (DOT) : Not applicable

**TDG**
Transport hazard class(es) (TDG) : Not applicable

**IMDG**
Transport hazard class(es) (IMDG) : Not applicable

**IATA**
Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

**DOT**
Not applicable

**TDG**
Not applicable

**IMDG**
Not applicable

**IATA**
Not applicable

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|---|---|---|
| Bismuth vanadium oxide (BiVO4) | CAS-No. 14059-33-7 | -% |

### 15.2. International regulations

**CANADA**

**DCL Hybrid 4754 (Hybrid)**

Listed on the Canadian DSL (Domestic Substances List)

**Bismuth vanadium oxide (BiVO4) (14059-33-7)**

Listed on the Canadian DSL (Domestic Substances List)

**Sulfuric acid, barium salt (1:1) (7727-43-7)**

Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**

| Bismuth vanadium oxide (BiVO4) (14059-33-7) |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

| Sulfuric acid, barium salt (1:1) (7727-43-7) |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

**National regulations**

| DCL Hybrid 4754 (Hybrid) |
|---|
| All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) |

| Bismuth vanadium oxide (BiVO4) (14059-33-7) |
|---|
| Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) |

| Sulfuric acid, barium salt (1:1) (7727-43-7) |
|---|
| Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)<br>Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)<br>Listed on the TCSI (Taiwan Chemical Substance Inventory) |

### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

| Component | State or local regulations |
|---|---|
| Sulfuric acid, barium salt (1:1)(7727-43-7) | U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 10/30/2026

Issue date : 3/18/2020

| | | |
|---|---|---|
| Training advice | : | Users of breathing apparatus must be trained. |
| Hazard Rating | | |
| Health | : | 1 Slight Hazard - Irritation or minor reversible injury possible |
| Flammability | : | 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB) |
| Physical | : | 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives. |

Safety Data Sheet (SDS), USA

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

DCL pigment, pigment preparations and special dyes are technical grade products. Unless otherwise stated or agreed DCL products are recommended only for industrial use in applications involving coloration of inks, plastics and coatings. Other intended uses including their use in consumer products governed by specific legislation or standards should be referred to the manufacturer. The use of this product is not authorized for the direct coloration of food, the coloration of articles that come into contact with internal organs or body fluids, tattoo inks, nor for cosmetic use. The customer must perform its own tests to determine the suitability of the supplied product for the intended purpose. It is also the customer's responsibility to ensure that its intended uses shall be fully in compliance with all applicable laws and regulations in each relevant country or region. The data contained in the SDS apply only to DCL products sold under the stated trade names.