SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

- A. GHS product identifier Skolor[®] Fine Onyx Black 1010D
- B. Recommended use of the chemical and restrictions on use
 Recommended use Cosmetic
 Restrictions on use Not available
 A Manufacturer

C. Manufacturers Company name CQV Co., Ltd. Address 144, Seongjung-Ro, Jincheon-Eup, Jincheon-Gun, Chungbuk-Do, Korea Emergency phone number 82-43-531-2500 Respondent Byung-Ki Choi Fax 82-43-536-0314

2. Hazards identification

A. GHS classification of the substance/mixture Not classified
B. GHS label elements, including precautionary statements Pictogram and symbol : Not applicable Signal word : Not applicable Hazard statements : Not applicable Precautionary statements Precaution : Not applicable Treatment : Not applicable Storage : Not applicable Disposal : Not applicable
C. Other hazard information not included in hazard classification (NFPA) Health 0

Flammability Not available Reactivity Not available

3. Composition/information on ingredients

Chemical Name (INCI Name)	CAS number	EC number	Content (%)
Synthetic Fluorphlogopite	12003-38-2	234-426-5	23 - 37
Titanium Dioxide (CI 77891)	13463-67-7	236-675-5	8 - 12
Iron Oxides (CI 77499)	1317-61-9	215-277-5	55 - 65

4. First aid measures

A. Eye contact

- In case of contact with substance, immediately flush eyes with running water at least 20 minutes.

B. Skin contact

- In case of contact with substance, immediately flush skin with running water at least 20 minutes.

- Remove and isolate contaminated clothing and shoes.
- Wash contaminated clothing and shoes before reuse.
- Get immediate medical advice/attention.

C. Inhalation

- Specific medical treatment is urgent.
- Move victim to fresh air.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.

D. Ingestion

- Do not let him/her eat anything, if unconscious.
- Get immediate medical advice/attention.
- E. Indication of immediate medical attention and notes for physician

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. Fire fighting measures

A. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media: Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2

- Unsuitable extinguishing media: High pressure water streams

B. Specific hazards arising from the chemical

- If inhaled, may be harmful.

C. Special protective equipment and precautions for fire-fighters

- Dike fire-control water for later disposal; do not scatter the material.
- Move containers from fire area if you can do it without risk.

- Fire involving Tanks; Cool containers with flooding quantities of water until well after fire is out.

- Fire involving Tanks; Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

- Fire involving Tanks; Always stay away from tanks engulfed in fire.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

- Eliminate all ignition sources.
- Stop leak if you can do it without risk.
- Please note that materials and conditions to avoid.
- Ventilate the area.
- Do not touch or walk through spilled material.
- Prevent dust cloud.

B. Environmental precautions and protective procedures

- Prevent entry into waterways, sewers, basements or confined areas.

C. The methods of purification and removal

- Small Spill; Flush area with flooding quantities of water. And take up with sand or other non-combustible absorbent material and place into containers for later disposal.

- Large Spill; Dike far ahead of liquid spill for later disposal.

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

7. Handling and storage

A. Precautions for safe handling

- Please note that materials and conditions to avoid.
- Wash thoroughly after handling.
- Please work with reference to engineering controls and personal protective equipment.
- Be careful to high temperature.

B. Conditions for safe storage

- Store in a closed container.
- Store in cool and dry place.

8. Exposure controls/personal protection

A. Occupational Exposure limits

Korea regulation

Titanium Dioxide TWA = 10 mg/m³

ACGIH regulation

Titanium Dioxide TWA 10 mg/m³

Biological exposure index : Not available

OSHA regulation

Titanium Dioxide TWA = 15 mg/m³

NIOSH regulation : Not available

EU regulation : Not available

Other

Titanium Dioxide Austria: TWA = 10 mg/m³ France: TWA = 10 mg/m³ (as Ti) Italy: TWA = 10 mg/m³ United Kingdom: TWA = 10 mg/m³ Russia: TWA = 10 mg/m³

B. Appropriate engineering controls

- Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

C. Personal protective equipment

Respiratory protection

- Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment when necessary.

- In case exposed to particulate material, the respiratory protective equipments as follow are recommended. ;facepiece filtering respirator or air-purifying respirator, high-efficiency particulate air(HEPA) filter media or respirator equipped with powered fan, filter media of use(dust, mist, fume)

- In lack of oxygen(< 19.5%), wear the supplied-air respirator or self-contained breathing apparatus.oxygen

Eye protection

- Wear facepiece with goggles to protect.

- An eye wash unit and safety shower station should be available nearby work place.

- Wear breathable safety goggles to protect from particulate material causing eye irritation or other disorder.

- An eye wash unit and safety shower station should be available nearby work place. Hand protection

- Wear chemical resistant gloves.

- Wear appropriate protective gloves by considering physical and chemical properties of chemicals.

Body protection

- Wear appropriate protective chemical resistant clothing.

- Wear appropriate protective clothing by considering physical and chemical properties of chemicals.

9. Physical and chemical properties

A. Appearance

Description Powder

Color Brilliant Fine black

- B. Odor No odor
- C. Odor threshold Not available

D. pH 7 - 11

- E. Melting point/freezing point Not available
- F. Initial boiling point and boiling range Not available
- G. Flash point Not available
- H. Evaporation rate Not available
- I. Flammability (solid, gas) Not applicable
- J. Upper/lower flammability or explosive limits Not available
- K. Vapor pressure Not available
- L. Solubility (ies) Not available
- M. Vapor density Not available
- N. Specific gravity 3.5 3.9 g/cm³
- O. Partition coefficient: n-octanol/water Not available
- P. Auto ignition temperature Not available
- Q. Decomposition temperature Not available
- R. Viscosity Not available
- S. Molecular weight Not available

10. Stability and reactivity

- A. Chemical stability and Possibility of hazardous reactions:
 - If inhaled, may be harmful.
- B. Conditions to avoid:
 - Heat, sparks or flames
- C. Incompatible materials:
 - Combustibles
- D. Hazardous decomposition products:
 - Not available

11. Toxicological information

A. Information of Health Hazardous

Acute toxicity

- Oral: Not classified
- Synthetic Fluorphlogopite : Rat LD₅₀ > 9,000 mg/kg
- **Titanium Dioxide** : Rat LD₅₀ > 5,000 mg/kg (OECD Guideline 425, EPA OPPTS 870.1100)

- Iron Oxides : Rat LD₅₀ > 5,000 mg/kg

- Dermal : Not available
- Inhalation : Not classified

- Synthetic Fluorphlogopite : Rat $LC_{50} > 5 \text{ mg/L/4hr}$ (OECD Guideline 403)

- Titanium Dioxide : Rat $LC_{50} > 6.82 \text{ mg/L/4hr}$

Skin corrosion/ irritation : Not classified

- **Synthetic Fluorphlogopite** : The test substance was not irritating to the rabbit skin. (OECD Guideline 404)

- **Titanium Dioxide** : In test on skin irritation with rabbits, skin irritations were not observed. (OECD Guideline 404)

- Iron Oxides : In skin irritation test with rabbits, skin irritations were not observed.(OECD TG 404, GLP)

Serious eye damage/ irritation : Not classified

- **Synthetic Fluorphlogopite** : The test substance was not irritating to the rabbit eyes. (OECD Guideline 405)

- **Titanium Dioxide** : In test on eye irritation with rabbits, eye irritations were not observed. (OECD Guideline 405, EU Method B.5, EPA OPPTS 870.2400)

- Iron Oxides : In eye irritation test with rabbits, eye irritations were not

observed.(cornea=5, iris=0, conjunctivae=2.4)(OECD TG 405, GLP)

Respiratory sensitization : Not classified

- **Titanium Dioxide** : Titanium oxide does not show respiratory sensitizing properties in animal studies or in exposure related observations in humans.

Skin sensitization : Not classified

Titanium Dioxide : In test on skin sensitization with guinea pig, skin sensitizations were not observed. (OECD Guideline 406, EU Method B.6, EPA OPP 81-6, GLP)
 Iron Oxides : In skin sensitisation test with guinea pigs, skin sensitizations were not observed.

Carcinogenicity: Not classified

Mutagenicity : Not classified

- **Titanium Dioxide** : Negative reactions were observed in in vitro (mammalian cell gene mutation test(OECD Guideline 476, GLP), mammalian chromosome aberration test(OECD Guideline 473, GLP), bacterial reverse mutation assay(OECD Guideline 471)) and in in vivo (micronucleus assay).

- **Iron Oxides** : Negative reactions were observed with and without metabolic activation in vitro(mammalian chromosome aberration test(OECD TG 473, GLP), mammalian cell gene mutation assay(OECD TG 476, GLP)).

Reproductive toxicity : Not classified

- **Titanium Dioxide** : Based on the weight of evidence from the available long-term toxicity/carcinogenicity studies in rodents and the relevant information on the toxicokinetic behaviour in rats it is concluded that TiO2 does not present a reproductive toxicity hazard.

Specific target organ toxicity (single exposure) : Not classified

- Iron Oxides : In acute oral toxicity test with rats, acute toxic effects were not observed. Specific target organ toxicity (repeat exposure) : Not classified

- **Synthetic Fluorphlogopite** : Fluorphlogopite showed no adverse effects in a 90-day repeat dose toxicity study in rats. Fluorphlogopite is a practically insoluble, inert mineral. Systemic effects after repeated exposure are highly unlikely.

- Titanium Dioxide : Titanium Dioxide did not show any adverse effects whatsoever in a chronic oral repeated dose toxicity study in rats, with a NOAEL of 3500 mg/kg bw/day. Titanium Dioxide is not absorbed to any relevant extent through human skin, thus no toxic effects can be expected via the dermal route of exposure. Titanium Dioxide showed fibrogenic effects in a chronic inhalation repeated dose toxicity study in rats with a NOAEC of 10 mg/m3.

- Iron Oxides : In repeated inhalation toxicity study with rats for 13 weeks, repeated

toxicity related effects were not observed. (NOAEL = 4.7 mg/m3air) (OECD TG 413, GLP)

Aspiration Hazard : Not available

12. Ecological information

A. Ecological toxicity

- Acute toxicity : Not classified
- Chronic toxicity : Not available
 - Fish

- Titanium Dioxide: 96hr-NOEC(Oncorhynchus mykiss) > 100 mg/L (OECD Guideline 203)

- Iron Oxides : 96hr-LC0 (*Brachydanio rerio*) ≥ 10000 mg/L (OECD TG 203, GLP) crustacean

- Iron Oxides : 48hr-EC0 (*Daphnia magna*) \geq 10000 mg/L (GLP)

Algae

- Titanium Dioxide: 72hr-EC₅₀ (other) = 61 mg/L , 72hr-NOEC(Pseudokirchnerella subcapitata) = 12.7 mg/L

B. Persistence and degradability

Persistence

- Titanium Dioxide : Low persistency (log Kow is less than 4 estimated.) (Log Kow = 2.23) (estimated)

Degradability : Not available

C. Bioaccumulative potential

Bioaccumulation

- Titanium Dioxide : Bioaccumulation is expected to be low according to the BCF < 500 (BCF = 13.73) (estimated)

Biodegradation

- Titanium Dioxide : not readily biodegradable (estimated)

- Iron Oxides : As not well-biodegraded, it is expected to have high accumulation potential in living organisms (< 10% biodegradation was observed after 45 mins)

D. Mobility in soil

- Titanium Dioxide : Low potency of mobility to soil. (Koc = 86.1) (estimated)

E. Other hazardous effect : Not available

F. HAZARDOUS TO THE OZONE LAYER : Not classified

13. Disposal considerations

A. Disposal method

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

B. Disposal precaution

Consider the required attentions in accordance with waste treatment management regulation.

14. Transport information

- A. UN Number Not applicable
- **B. UN Proper shipping name** Not applicable

- C. Transport Hazard class Not applicable
- D. Packing group Not applicable
- E. Marine pollutant Not applicable
- F. IMDG/IATA/ICAO Not applicable
- G. Special precautions in case of fire Not applicable in case of leakage Not applicable

15. Regulatory information

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A. Occupational Safety and Health Regulation
     Titanium Dioxide : Administration subject listed
     Titanium Dioxide : Occupational exposure limits listed
     Titanium Dioxide: Work environment monitoring listed (6 months)
     Iron Oxides: Work environment monitoring listed (6 months)
     Iron Oxides: Health examination agent (12 months)
   B. Chemical Control Act
     Synthetic Fluorphlogopite : Existing Chemical Substance KE-17066
     Titanium Dioxide: Existing Chemical Substance KE-33900
     Iron Oxides: Existing Chemical Substance (KE-34314)
   C. Dangerous Material Safety Management Regulation
     Titanium Dioxide: Dangerous Material Safety Management Regulation
   D. Wastes Control Act
     Synthetic Fluorphlogopite : Wastes Control Act Controlled Wastes
   E. Other regulation (internal and external)
     Internal information
       Persistant Organic Pollutants Acts : Not regulated
② Foreign Regulatory Information
   External information
     EU classification(classification)
       Titanium Dioxide : Not classified
       Iron Oxides : Not classified
     EU classification(risk phrases)
       Titanium Dioxide : Not applicable
       Iron Oxides : Not applicable
     EU classification(safety phrases)
       Titanium Dioxide : Not applicable
       Iron Oxides : Not applicable
     EU SVHC list : Not regulated
     EU Authorisation List : Not regulated
     EU Restriction list : Not regulated
     U.S.A management information (OSHA Regulation) : Not regulated
     U.S.A management information (CERCLA Regulation) : Not regulated
     U.S.A management information (EPCRA 302 Regulation) : Not regulated
     U.S.A management information (EPCRA 304 Regulation) : Not regulated
     U.S.A management information (EPCRA 313 Regulation) : Not regulated
     Substance of Roterdame Protocol : Not regulated
     Substance of Stockholme Protocol : Not regulated
     Substance of Montreal Protocol : Not regulated
   Foreign Inventory Status
       Synthetic Fluorphlogopite
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Australia manegement information Inventory of Chemical Substances (AICS): Present

Canada Manegement Informaton Domestic Substances List (DSL): Present China manegement information Inventory of Existing Chemical Substances (IECSC): Present

New Zealand manegement information Inventory of Chemicals (NZIoC): May be used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right.

Phillippines manegement information Inventory of Chemicals and Chemical Substances (PICCS): Present

U.S.A management information Section 8(b) Inventory (TSCA): Present **Titanium Dioxide**

U.S.A management information Section 8(b) Inventory (TSCA): Present Japan management information Existing and New Chemical Substances (ENCS): (5)-5225, (1)-558

Japan management information ISHL Harmful Substances Whose Names Are to be Indicated on the Label: \geq 1% weight

Japan management information ISHL Notifiable Substances: \geq 0.1% weight China management information Inventory of Existing Chemical Substances (IECSC): Present 11377

Canada management information Domestic Substances List (DSL): Present Australia management information Inventory of Chemical Substances (AICS): Present

New Zealand management information Inventory of Chemicals (NZIoC): May be used as a single component chemical under an appropriate group standard. Philippines management information Inventory of Chemicals and Chemical Substances (PICCS): Present

Iron Oxides

U.S.A management information Section 8(b) Inventory (TSCA): Present Japan management information Existing and New Chemical Substances (ENCS): (1)-357

China management information Inventory of Existing Chemical Substances (IECSC): Present 33132

Canada management information Domestic Substances List (DSL): Present Australia management information Inventory of Chemical Substances (AICS): Present

New Zealand management information Inventory of Chemicals (NZIoC): May be used as a single component chemical under an appropriate group standard. Philippines management information Inventory of Chemicals and Chemical Substances (PICCS): Present

Japan management information ISHL Harmful Substances Whose Names Are to be Indicated on the Label: >=1 % weight (listed under Iron Oxides)

Japan management information ISHL Notifiable Substances: >=1 % weight (listed under Iron Oxides)

16. Other information

A. Information source and references

The Chemical Database – The Department of Chemistry at the University of Akron Emergency Response Guidebook 2008;

http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/erg2008_eng.pdf

U.S. National library of Medicine(NLM) ChemIDplus; http://toxnet.nlm.nih.gov/cgibin/sis/htmlgen?CHEM National Emergency Management Agency-Korea dangerous material inventory management system; http://www.nema.go.kr/hazmat/main/main.jsp Korea Occupational Health & Safety Agency; http://www.kosha.net EPISUITE v4.11; http://www.epa.gov/opt/exposure/pubs/episuitedl.html Ministry of Public Safety and Security-Korea dangerous material inventory management system; http://hazmat.mpss.kfi.or.kr/index.do IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; http://monographs.iarc.fr TOMES-LOLI®; http://www.rightanswerknowledge.com/loginRA.asp National Chemicals Information System; http://ncis.nier.go.kr/ncis/ Waste Control Act enforcement regulation attached [1] REACH information on registered substances; https://echa.europa.eu/information-onchemicals/registered-substances National Toxicology Program; http://ntp-apps.niehs.nih.gov/ntp_tox/index.cfm American Conference of Governmental Industrial Hygienists TLVs and BEIs. NIOSH Pocket Guide; http://www.cdc.gov/niosh/npg/npgdcas.html National Institute of Technology and Evaluation(NITE); http://www.safe.nite.go.jp/english/db.html REACH information on registered substances; http://apps.echa.europa.eu/registered/registered-sub.aspx International Uniform Chemical Information Database(IUCLID) Korea Maritime Dangerous Goods Inspection Center; http://www.komdi.or.kr/index.html EU CLP; https://echa.europa.eu/information-on-chemicals/cl-inventory-database **B. Issuing date** 12–02–2016

- C. Revision number and date
 - revision number 4

date of the latest revision 01-04-2024

D. Others

• Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

• The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions.

• It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

• The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.