



MATERIAL SAFETY DATA SHEET DualGlo White Effect Pigment JTE 5593

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name DualGlo White Effect Pigment JTE 5593
Manufacturer/Supplier DualGlo LTD
Address Central Boulevard
Blythe Valley Business Park
Solihull, B90 8AG
United Kingdom

Phone Number +44(0) 1564 711 096
Revision Date:
MSDS Date: March 1, 2008
Material Safety Data Sheet according to OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

Routes of Entry

- Eye contact - Skin contact - Inhalation

Carcinogenic Status

Considered carcinogenic by NTP (Titanium Dioxide – IARC 2B)

Target Organs

- Skin - Eye - Respiratory System

Health Effects - Eyes

Dust may cause irritation.

Health Effects - Skin

Contact may cause irritation and allergic skin reaction.

Health Effects - Ingestion

Swallowing may have the following effects: - irritation of mouth, throat and digestive tract
Ingestion of high doses may cause adverse effects to blood, liver and adrenals.

Health Effects - Inhalation

Material may cause irritation to the respiratory system. Prolonged, repeated inhalation may cause pulmonary fibrosis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#	Concentration
Titanium Dioxide	13463-67-7	<10.0%
Dialuminum Strontium tetraoxide	12004-37-4	75 - 85%
Inorganic Compounds	N.A.	< 10%
Organic Compounds	N.A.	< 5%

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if redness or soreness persists.

Ingestion

Have victim drink 1-3 glasses of water to dilute stomach contents. Obtain medical attention.



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4. FIRST AID MEASURES

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Advice to Physicians

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media

Use water spray, foam, dry chemical or carbon dioxide.

Unusual Fire and Explosion Hazards

Avoid the formation of dust clouds. This product may give rise to hazardous fumes in a fire.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Avoid accumulation of dust. Sweep up into suitable containers for recovery or disposal. Wear appropriate protective clothing. Wear respiratory protection. Prevent the material from entering drains or water courses. Notify authorities if spill has entered water course or sewer or has contaminated soil or vegetation.

7. HANDLING AND STORAGE

Use in well ventilated area. Use local exhaust ventilation if conditions are dusty. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use. It is recommended to store in original containers. Storage area should be: - cool - dry - well ventilated - away from incompatible materials (see section 10 for materials to avoid)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards**Titanium Dioxide:**

ACGIH TLV: 10 mg/m³

OSHA PEL: 15 mg/m³ (total dust)

Particles Not Otherwise Specified:

ACGIH TLV: 3 mg/m³ (respirable), 10 mg/m³ (inhalable)

OSHA PEL: 5 mg/m³ (respirable), 15 mg/m³ (total)

Engineering Control Measures

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

Respiratory Protection

Dust mask if conditions are dusty. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Hand Protection

Chemical resistant gloves



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical goggles or safety glasses with side shields

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder
Color	Beige
Odor	Odorless
pH	Not applicable.
Specific Gravity	1.2
Melting Point (°C/F)	No data
Boiling Range/Point (°C/F)	No data.
Flash Point (PMCC) (°C/F)	Not applicable.
Vapor Pressure	Not applicable.
Solubility in Water	Decomposes in contact with water.
Vapor Density (Air = 1)	No data.

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

Extreme heat - Contact with Incompatible Materials

Materials to Avoid

Acids – Fluorides - Strong Oxidizers - Water - Moisture

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

Oxides of Carbon

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

No relevant studies identified. Low order of acute toxicity expected.

Chronic Toxicity/Carcinogenicity

High doses of Dialuminum Strontium tetraoxide have caused adverse effects to the liver, blood and adrenals. Titanium Dioxide may cause cancer based on animal studies.

Genotoxicity

No relevant studies identified. This product is not expected to cause any mutagenic effects.

Reproductive/Developmental Toxicity

No relevant studies identified. This product is not expected to cause reproductive or developmental health effects.



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12. ECOLOGICAL INFORMATION

Mobility

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bio-accumulation

No relevant studies identified.

Ecotoxicity

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Empty containers may contain residues. Dispose of containers with care.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	Not Regulated
UN Proper Shipping Name	Not Regulated
UN Class	None.
UN Number	None.
UN Packaging Group	None.
Classification for AIR Transportation (IATA)	Consult current IATA Regulations prior to shipping by air.

15. REGULATORY INFORMATION

TSCA Listing

All ingredients in this product are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance (TSCA) Inventory.

DSL/NDSL (Canadian) Listing

All ingredients in this product are listed on or exempt from listing on the Canadian Domestic Substance List (DSL).

WHMIS Classification

D.2.B.

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

California Proposition 65

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

SARA Title III Sect. 311/312 Categorization

Immediate (Acute) Health Hazard, Delay (Chronic) Health Hazard

SARA Title III Sect. 313

This product contains the following chemicals which is listed in Section 313 at or above de minimis concentrations: NONE



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16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Flammability - 0
NFPA Code for Health - 1
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards - None

HMIS Ratings

HMIS Code for Flammability - 0
HMIS Code for Health - 1*
HMIS Code for Reactivity - 0
HMIS Code for Personal Protection - See Section 8

Abbreviations

N/A: Denotes no applicable information found or available
CAS#: Chemical Abstracts Service Number
ACGIH: American Conference of Governmental Industrial Hygienists
OSHA: Occupational Safety and Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
NTP: National Toxicology Program
IARC: International Agency for Research on Cancer
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%

Prepared By: EnviroNet LLC.

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