QINGDAO SANHUAN COLORCHEM CO., LTD.

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MATERIAL SAFETY DATA SHEET

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Titanium Dioxide SHA-1000
Chemical Formula: TiO2
Molecular Weight: 79.90
CAS No.: 13463-67-7
HS Number :320611.1000
Company Identification:
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Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

Component : TiO2
CAS number : 13463-67-7
HS Number : 32061110.00
Percentage: ≥98.0%
Hazardous : No

Section 3 : Hazards Identification

Emergency Overview
CAUSES IRRITATION TO EYES
NFPA Ratings (Scale 0-4): HEALTH=0 FIRE=0 REACTIVITY=0
EC Classification (Assigned):
R 36/38,EC Classification may be inconsistent with independently-researched data.
Color : white
Physical Form: powder
Odor: odorless
Major Health Hazards: respiratory irritation, eye irritation, mucous membrane irritation
POTENTIAL HEALTH EFFECTS:
Inhalation:
Short Term Exposure: no.
Long Term Exposure: same as effects reported in short term exposure.
SKIN CONTACT:
Short Term Exposure : no.
Long Term Exposure : same as effects reported in short term exposure.
EYE CONTACT:
Short Term Exposure : irritation.

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Long Term Exposure : same as effects reported in short term exposure.
INGESTION:
Short Term Exposure : no.
Long Term Exposure : same as effects reported in short term exposure.
Chronic Exposure : RESULTS OF EPIDEMIOLOGY STUDY SHOWED THAT EMPLOYEES WHO
HAD BEEN EXPOSED TO TITANIUM DIOXIDE PIGMENTS WERE AT NO GREATER RISK OF
Email: sales@cncolorchem.com
DEVELOPING LUNG CANCER THAN WERE EMPLOYEES WHO NOT BEEN EXPOSED TO
TITANIUM DIOXIDE
CARCINOGEN STATUS:N
OSHA: N
NTP: N
IARC: N

Section 4 : First Aid Measures
Inhalation: Remove to fresh air.
Ingestion: If swallowed, give several glasses of water to drink. Vomiting may occur spontaneously, but
DO NOT INDUCE! Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact: Wipe off excess material from skin then flush skin with plenty of water. Remove
contaminated clothing and shoes.
Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper
eyelids occasionally.
.
NOTE TO PHYSICIAN: For inhalation, consider oxygen.

Section 5 : Fire Fighting Measures
Fire: Not considered to be a fire hazard. Will not burn
Explosion: Sealed containers may rupture when heated.
Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Water spray may
be used to keep fire exposed containers cool.
Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved
self-contained breathing apparatus with full facepiece operated in the pressure demand or other
positive pressure mode.. Sealed containers of this material may rupture at moderate temperatures
(release of water vapor)..

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Section 6 : Accidental Release Measures

Soil Release:Dig holding area such as lagoon, pond or pit for containment. Cover with plastic sheet or tarp to minimize spreading and protect from contact with water.
Water Release: just wash out
Occupational Release:Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills:
Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

Section 7 : Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage; observe all warnings and precautions listed for the product.

Section 8 : Exposure Controls/Personal Protection

Airborne Exposure Limits: None established.
Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
Personal Respirators (NIOSH Approved): For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING:
Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls.
Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.
Clothing: Wear appropriate clothing.

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Gloves: impervious gloves or specified by manufacturer

Section 9 : Physical and Chemical Properties

Appearance: white powder
Odor: Odorless.
Color: white
Solubility: InSoluble in water.
Molecular Weight: 79.90
Molecular Formula: TiO2
Specific Gravity: 3.7-3.9 g/cm3
pH: neutral
% Volatiles by volume @ 21C (70F): 0
Vapor Density (Air=1): No information found.
Vapor Pressure (mm Hg): No information found.
Evaporation Rate (BuAc=1): No information founded
Coefficient of Water/Oil Distribution: Not available

Section 10 : Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.
Reactivity:. Stable at normal temperatures and pressure
Conditions to Avoid: Stable at normal temperatures and pressure
Polymerization: Will not polymerize.
Hazardous Decomposition Products: not occur
Hazardous Polymerization: Will not occur.

Section 11 : Toxicological Information

Irritation: Inhalation of dust or mist can cause irritation of eyes, nose, throat and lungs.
Eye contact: Powder/particle can cause mechanical irritation.
Skin contact: Can cause irritation if not wash off from skin promptly.
Skin absorption: Not expected to be absorbed through intact skin.
Ingestion:
Not expected to produce adverse effects.
Effects of Chronic exposure
Titanium Dioxide: In lifetime inhalation studies of rats, airborne, respirable –size titanium dioxide
particles have been shown to cause an increase in lungs tumors at concentrations associated with
substantial particle lungs burdens and consequential pulmonary overload and inflammation. The
potential for these adverse health effects appears to be closely related the particle size and the amount
of exposed surface area that comes into contact with the lung. However, test with other laboratory such

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as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload
and inflammation that causes lung cancer. Epidemiology studies do not suggest an increase risk of
cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possible carcinogenic to humans (Group 2B)
through inhalation(Not ingestion) It has not been characterized as potential carcinogen by either NTP
or OSHA.
Medical conditions Aggravated: Respiratory disorder
Toxicity: Titanium dioxide
Oral LD 50 >10,000 mg/kg (rate)
Dermal LD 50 >10,000 mg/kg (rabbit)
Inhalation LD (4 hr) >6.8 mg/l (rat)

SECTION 12: ECOLOGICAL INFORMATION
No data available.

Section 13 : Disposal Considerations
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and
approved waste disposal facility. Dispose of container and unused contents in accordance with federal,
state and local requirements.

Section 14 : Transport Information
No hazard class in the world

SECTION 15 REGULATORY INFORMATION
United States Regulatory Information
SARA Listed: No
TSCA Inventory Item: Yes
Canada Regulatory Information
DSL: Yes
NDSL: No

SECTION 16 OTHER INFORMATION
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users
should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable

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