

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Product name : DNA103L HiFi Volcano Latent Print Powder, Indestructible White

Product code : DNA103L

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Latent fingerprint powder

1.3. Details of the supplier of the safety data sheet

SIRCHIE Finger Print Laboratories

100 Hunter Place

Youngsville, NC 27596 - USA

T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181

http://www.sirchie.com

1.4. Emergency telephone number

Emergency number : 1.800.424.9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

#### **GHS-US** classification

Carcinogenicity Category 2 H351

Full text of H statements : see section 16

#### 2.2. Label elements

# **GHS-US** labeling

Hazard pictograms (GHS-US)



011000

Signal word (GHS-US) : Warning

Contains : titanium(IV) oxide

Hazard statements (GHS-US) : H351 - Suspected of causing cancer (oral, Dermal)
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear gloves, dust mask and safety glasses

P308+P313 - If exposed or concerned: Get medical advice/attention

P405 - Store locked up

P501 - Dispose of contents/container to ..

#### 2.3. Other hazards

Other hazards not contributing to the

classification

: None under normal conditions.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

# **SECTION 3: Composition/Information on ingredients**

#### 3.1. Substance

Not applicable

# 3.2. Mixture

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Name	Product identifier	%	GHS-US classification
titanium(IV) oxide	(CAS No) 13463-67-7	90	Carc. 2, H351
zinc distearate	(CAS No) 557-05-1	10	Not classified

Full text of H-phrases: see section 16

#### **SECTION 4: First aid measures**

#### **Description of first aid measures**

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible). Suspected of causing cancer.

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. Wash with

plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs:

Get medical advice/attention. Specific treatment (see ... on this label).

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a

poison center or doctor/physician. Specific treatment (see ... on this label).

#### Most important symptoms and effects, both acute and delayed

Symptoms/injuries after skin contact : Causes skin irritation. Symptoms/injuries after eye contact Causes serious eye damage.

Symptoms/injuries after ingestion Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard

#### Indication of any immediate medical attention and special treatment needed

No additional information available

### **SECTION 5: Firefighting measures**

#### **Extinguishing media**

: Foam. Dry powder. Carbon dioxide. Sand. Suitable extinguishing media Unsuitable extinguishing media : Do not use a heavy water stream. Water.

#### Special hazards arising from the substance or mixture 5.2.

Fire hazard : Flammable solid.

Explosion hazard May form flammable/explosive vapor-air mixture.

Reactivity : No data available.

#### 5.3 Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

#### **SECTION 6: Accidental release measures**

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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No

smoking.

#### 6.1.1. For non-emergency personnel

**Emergency procedures** : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Ventilate area. **Emergency procedures** 

#### **Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

# Methods and material for containment and cleaning up

: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away Methods for cleaning up

from other materials.

#### Reference to other sections

See Heading 8. Exposure controls and personal protection.

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### **SECTION 7: Handling and storage**

#### Precautions for safe handling

Additional hazards when processed

: Handle empty containers with care because residual vapors are flammable. Keep away from any possible contact with water, because of violent reaction and possible flash fire.

Precautions for safe handling

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Protect from moisture. Handle under inert gas. Obtain special instructions before use. Do not handle until all safety precautions have been read and

: Wash hands, forearms and face thoroughly after handling.

Hygiene measures

### Conditions for safe storage, including any incompatibilities

Technical measures

: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/...

Storage conditions

Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Heat sources. Direct sunlight. Keep in fireproof place. Store in a dry

place. Protect from moisture.

Incompatible products

Strong bases. Strong acids.

Incompatible materials

Sources of ignition. Direct sunlight. Keep away from any possible contact with water, because

of violent reaction and possible flash fire.

# **SECTION 8: Exposure controls/personal protection**

#### **Control parameters**

DNA103L HiFi Volcano Latent Print Powder, Indestructible White			
OSHA	OSHA PEL (TWA) (mg/m³)	0 μg/m³	
OSHA	OSHA PEL (Ceiling) (mg/m³)	15 mg/m³	
zinc distearate (557-05-1)			
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (Stearates (not of toxic metals); USA; Time- weighted average exposure limit 8 h; TLV - Adopted Value)	
Not applicable			
titanium(IV) oxide (	13463-67-7)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (Titanium dioxide; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
Not applicable	·	·	

#### **Exposure controls**

Personal protective equipment : Gloves. Safety glasses. Dust formation: dust mask. Avoid all unnecessary exposure.







Hand protection : Wear protective gloves.

Eye protection Chemical goggles or safety glasses. Skin and body protection Wear suitable protective clothing.

Respiratory protection Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

# **SECTION 9: Physical and chemical properties**

# Information on basic physical and chemical properties

Physical state : Solid Appearance Powders. Color : White

Odor : odorless characteristic

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Odor threshold : No data available рН : No data available Melting point No data available Freezing point : No data available No data available **Boiling point** Flash point No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : No data available **Explosion limits** : No data available : No data available Explosive properties : No data available Oxidizing properties Vapor pressure : No data available : No data available Relative density Relative vapor density at 20 °C : No data available

Solubility : Water: Solubility in water of component(s) of the mixture :

• titanium(IV) oxide: 0.15 g/100ml • zinc distearate: < 0.00001 g/100ml

Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

#### 9.2. Other information

No additional information available

#### **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

No data available.

# 10.2. Chemical stability

Stable under normal conditions. Not established. Flammable solid. May form flammable/explosive vapor-air mixture.

#### 10.3. Possibility of hazardous reactions

In contact with water releases flammable gases which may ignite spontaneously.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

# 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

Acute toxicity : Not classified

DNA103L HiFi Volcano Latent Print Powder, Indestructible White		
LD50 oral rat	10 mg/kg	
LD50 dermal rabbit	10 mg/kg	
zinc distearate (557-05-1)		
LD50 oral rat	> 5000 mg/kg (Rat)	
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)	
titanium(IV) oxide (13463-67-7)		
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)	

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titanium(IV) oxide (13463-67-7)	
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value)
Skin corrosion/irritation	: Not classified
	(Lack of data)
Serious eye damage/irritation	: Not classified
	(Lack of data)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Suspected of causing cancer (oral, Dermal).
	(Lack of data)

DNA103L HiFi Volcano Latent Print Powder, Indestructible White	
IARC group	2B - Possibly carcinogenic to humans

titanium(IV) oxide (13463-67-7)		
	IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

(Lack of data)Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

: Toxic if swallowed.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Toxic if swallowing a small quantity of this material will result in serious health

hazard.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : Dangerous for the environment.

DNA103L HiFi Volcano Latent Print Powder, Indestructible White		
LC50 fish 2	1 mg/l	
titanium(IV) oxide (13463-67-7)		
EC50 Daphnia 1	> 100 mg/l (LC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh water; Weight of evidence)	
Threshold limit algae 1	61 mg/l (EC50; Other; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)	

### 12.2. Persistence and degradability

DNA103L HiFi Volcano Latent Print Powder, Indestructible White		
Persistence and degradability	Not established.	
zinc distearate (557-05-1)		
Persistence and degradability	Not readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.020 g O <sub>2</sub> /g substance	
Chemical oxygen demand (COD)	0.145 g O <sub>2</sub> /g substance	
titanium(IV) oxide (13463-67-7)		
Persistence and degradability	Biodegradability: not applicable. Not established.	
Biochemical oxygen demand (BOD)	Not applicable	
Chemical oxygen demand (COD)	Not applicable	

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titanium(IV) oxide (13463-67-7)		
ThOD	Not applicable	
12.3. Bioaccumulative potential		
DNA103L HiFi Volcano Latent Print Powder, Indestructible White		
Bioaccumulative potential	Not established.	
zinc distearate (557-05-1)		
Log Pow	< 3	

Low potential for bioaccumulation (Log Kow < 4).

# titanium(IV) oxide (13463-67-7)

Bioaccumulative potential No bioaccumulation data available. Not established.

## 12.4. Mobility in soil

Bioaccumulative potential

No additional information available

#### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to Dispose in a safe manner in accordance with local/national regulations.

Additional information : Clean up even minor leaks or spills if possible without unecessary risk. Handle empty

containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

# **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN1309 Aluminum powder, coated (Aluminum powder, coated), 4.1, II

UN-No.(DOT) : UN1309

Proper Shipping Name (DOT) : Aluminum powder, coated

Aluminum powder, coated

Class (DOT) : 4.1 - Class 4.1 - Flammable Solid 49 CFR 173.124

Hazard labels (DOT) : 4.1 - Flammable solid

Packing group (DOT) : II - Medium Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 212 DOT Packaging Bulk (49 CFR 173.xxx) : 240

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DOT Special Provisions (49 CFR 172.102)

: IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2)

IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle

IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner

T3 - 2.65 178.274(d)(2) Normal...... 178.275(d)(2)

TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter

DOT Packaging Exceptions (49 CFR 173.xxx)

DOT Quantity Limitations Passenger aircraft/rail : 15 kg

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 50 kg

CFR 175.75)

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel

**DOT Vessel Stowage Location DOT Vessel Stowage Other** 

13 - Keep as dry as reasonably practicable, 39 - Stow "away from" liquid halogenated hydrocarbons,52 - Stow "separated from" acids,53 - Stow "separated from" alkaline compounds,74 - Stow "separated from" oxidizers,101 - Stow "separated from" iron oxide

Other information : No supplementary information available.

**TDG** 

No additional information available

# Transport by sea

No additional information available

#### Air transport

No additional information available

#### **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

No additional information available

#### 15.2. International regulations

### **CANADA**

No additional information available

#### **EU-Regulations**

No additional information available

# **National regulations**

No additional information available

### 15.3. US State regulations

No additional information available

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**SECTION 16: Other information** 

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Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging.
Other information	: None.
Full text of H-phrases:	

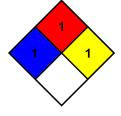
H351 Suspected of causing cancer
NFPA health hazard : 1 - Exposure could cause irritation but only minor residual

injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with

some release of energy, but not violently.



**HMIS III Rating** 

Health : 2 Moderate Hazard - Temporary or minor injury may occur

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 : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high

temperatures and pressures. Materials may react non-violently with water or undergo

hazardous polymerization in the absence of inhibitors.

Personal Protection :

E - Safety glasses, Gloves, Dust respirator

SDS US (GHS HazCom 2012)

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.

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