

## < Material Safety Data Sheet >

**Product Name : TiO<sub>2</sub> N-LL(HD)**

### 1. PRODUCT AND COMPANY IDENTIFICATION

a) Product Name	TiO <sub>2</sub> N-LL(HD)
b) Recommended use of the chemical and restrictions on use	Cosmetics material
c) Supplier's Information	
Name	EastHill Corporation
Address	Hyundai Coretel 1003, 341, Sanbon-ro, Gunpo-si, Gyeonggi-do 15865, Korea.
Emergency phone number	TEL ) 82-31-396-5182   FAX ) 82-31-396-5183

### 2. HAZARDS IDENTIFICATION

a) Hazard Classification	Not Classified
b) Label elements including precautionary statements	
Symbol	None
Signal Word	None
Hazard-Risk Statement	None
Precautionary Statement	
Precaution	None
Response	None
Storage	None
Disposal	None
c) Other Hazard. Risk (NFPA)	
Health	1
Fire	0
Reactivity	0

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

INCI NAME	CONTENT(%)	CAS.No
Titanium Dioxide	confidential	13463-67-7
Lauroyl Lysine		52315-75-0

### 4. FIRST AID MEASURES

a) Eye contact	Seek medical advice immediately. Wash the eyes with flowing water immediately for 20 minutes.
b) Skin contact	Wash the skin with soap and water to remove the adhered. If you feel an inconvenience, seek medical advice. Remove the clothing and shoes, isolate the polluted area. Prevent the spread of the contamination.

- |                      |   |
|----------------------|---|
| c) Inhalation        | Seek medical advice if it is exposure.<br>Remove the polluted air with fresh air if it is exposure for dust or fume.<br>Seek medical advice if you have cough or other symptom. |
| d) Ingestion         | Seek medical advice if it is exposure.<br>Use suitable Respiratory medical equipment.   |
| e) Note to physician | None  |

## 5. FIRE-FIGHTING MEASURES

- |   |   |
|---|---|
| a) Suitable (and unsuitable) extinguishing media                  | Alcohol-form, Carbon Dioxide, Water-spray.<br>In case of extinguishment by smothering, use dry sand or soil.  |
| b) Specific hazards arising from the chemical                     | It can combust partial but don't ignite easily.<br>Nonflammability, material don't combust but if apply heat, decomposition can make corrosiveness/toxic fume.  |
| c) Special protective equipment and precautions for fire-fighters | Wear the suitable protective equipment.<br>Maintain the safety distance and put out a fire.<br>If it is not dangerous, move the container from fire area.<br>In case of tank fire, put out a fire in the maximum distance or use unmanned fire extinguisher.<br>In case of tank fire, after extinguishing fire, cool down the container with plenty of water.<br>In case of tank fire, if there is high note in pressure relief device or tank be discolored, immediately draw back.<br>In case of large scale tank fire, use unmanned fire extinguisher. If it is impossible, draw back to burn. |

## 6. ACCIDENTAL RELEASE MEASURES

- |  |  |
|--|--|
| a) Personal precautions, protective equipment and emergency procedures | Avoid breathing vapors, mist or gas.<br>Remove the all ignition source.<br>Wipe immediately spilled materials and obey the precaution of protective equipment part.<br>Isolate the polluted area.<br>If you don't wear suitable protective equipment, do not touch the damaged container or exposure material.<br>If it is not dangerous, stop the exposure.<br>Cover a plastic sheet and prevent the spread of the contamination. |
| b) Environmental precautions and protective procedures                 | Avoid release to the environment.<br>Prevent spills from entering storm sewers or drains and contact with soil.  |
| c) Methods and materials for containment and cleaning up               | Absorb the spilled material by inactivator and put in chemical waste container.<br>Absorb the liquid and wash the polluted area with water and detergent.  |

## 7. HANDLING AND STORAGE

- |                                  |   |
|----------------------------------|---|
| a) Precautions for safe handling | Avoid breathing vapors, mist or gas.<br>Use it on good ventilation area only.<br>Be careful of the material and condition to avoid. |
| b) Conditions for safe storage   | Avoid high temperature, humidity, spark.<br>Store the container and material in cool, in cool and good ventilation area.            |

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

- |                                 |  |
|---------------------------------|--|
| a) Occupational Exposure Limits |  |
| Korea                           |  |

Titanium Dioxide	TWA – 10mg/m <sup>3</sup>
Lauroyl Lysine	No data
ACGIH	
Titanium Dioxide	TWA 3 mg/m <sup>3</sup>
Lauroyl Lysine	No data
Biological Exposure Indices	
Titanium Dioxide	No data
Lauroyl Lysine	No data
b) Appropriate engineering controls	To prevent the air-pollution of working space, it is desired to provide a local exhaust apparatus or closed type system, and make total ventilation appropriately.
c) Personal protective equipment	
Respiratory protection	Wear the respiratory protective equipment approved by Korea occupational safety and health agency.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance (physical state, color, etc.)	White Powder
b) Odor	Slightly Characteristic Odor
c) Odor threshold	No data
d) pH	No data
e) Melting point / Freezing point	No data
f) Initial boiling point and boiling range	Not applicable
g) Flash point	Not applicable
h) Evaporation rate	Not available
i) Flammability (solid, gas)	Non flammability
j) Explosion limits	Not applicable
k) Vapor pressure	No data
l) Solubility	Insoluble in water
m) Vapor density	Not available
n) Relative density	Not available
o) Partition coefficient: n-octanol/water	No data
p) Auto-ignition temperature	No burning
q) Decomposition temperature	No data
r) Viscosity	Not available
s) Molecular weight	No data

## 10. STABILITY AND REACTIVITY

a) Chemical stability and possibility of hazardous reactions	Stable under general condition
b) Conditions to avoid	Ignition source (Heat, spark, flame)
c) Incompatible materials	Combustibles, reductiveness material
d) Hazardous decomposition products	corrosive/toxic fume Irritative/corrosive/toxic gas

## 11. TOXICOLOGICAL INFORMATION

a) Information on the likely routes of exposure	No data
b) Health hazards information	
Acute Toxicity	

Oral		
Titanium Dioxide		LD50 > 10000 mg/kg Rat
Lauroyl Lysine		No data
Skin		
Titanium Dioxide		LD50 > 10000 mg/kg Rabbit
Lauroyl Lysine		No data
Inhalation		
Titanium Dioxide		LC50> 6.82 mg/ℓ 4 hr Rat
Lauroyl Lysine		No data
Skin corrosion /irritation		
Titanium Dioxide		Slightly irritation or no irritation, Rabbit
Lauroyl Lysine		No data
Serious eye damage/irritation		
Titanium Dioxide		Slightly irritation, Rabbit
Lauroyl Lysine		No data
Respiratory sensitization		
Titanium Dioxide		No data
Lauroyl Lysine		No data
Skin sensitization		
Titanium Dioxide		No data
Lauroyl Lysine		No data
Carcinogenicity		
IARC		
Titanium Dioxide		Group 2B
Lauroyl Lysine		No data
OSHA		
Titanium Dioxide		No data
Lauroyl Lysine		No data
ACGIH		
Titanium Dioxide		A4
Lauroyl Lysine		No data
NTP		
Titanium Dioxide		No data
Lauroyl Lysine		No data
EU CLP		
Titanium Dioxide		No data
Lauroyl Lysine		No data
Germ cell mutagenicity		
Titanium Dioxide		Negative, Mouse
Lauroyl Lysine		No data
Reproductive toxicity		
Titanium Dioxide		No data
Lauroyl Lysine		No data
Specific target organ systemic toxicity (single exposure)		
Titanium Dioxide		No data
Lauroyl Lysine		No data
Specific target organ systemic toxicity (repeated exposure)		

Titanium Dioxide	No data
Lauroyl Lysine	No data
Aspiration hazard	
Titanium Dioxide	No data
Lauroyl Lysine	No data

## 12. ECOLOGICAL INFORMATION

### a) Aquatic and terrestrial ecotoxicity

#### Fish

Titanium Dioxide	No data
Lauroyl Lysine	No data

#### Crustacean

Titanium Dioxide	EC50 > 1000 mg/l 48 hr
Lauroyl Lysine	No data

#### Birds

Titanium Dioxide	No data
Lauroyl Lysine	No data

### b) Persistence and Degradability

#### Persistence

Titanium Dioxide	No data
Lauroyl Lysine	No data

#### Degradability

Titanium Dioxide	No data
Lauroyl Lysine	No data

### c) Bioaccumulative potential

#### Bioaccumulativity

Titanium Dioxide	No data
Lauroyl Lysine	No data

#### Biodegradability

Titanium Dioxide	No data
Lauroyl Lysine	No data

### d) Mobility in soil

Titanium Dioxide	No data
Lauroyl Lysine	No data

### e) Other adverse effects

Titanium Dioxide	No data
Lauroyl Lysine	No data

## 13. DISPOSAL CONSIDERATIONS

a) Disposal method	Dispose the waste in accordance with all applicable regulations.
b) Disposal precaution	Dispose the waste in accordance with all applicable regulations.

## 14. TRANSPORT INFORMATION

### a) UN number

Titanium Dioxide	Not applicable
Lauroyl Lysine	Not applicable

b) UN proper shipping name		
	Titanium Dioxide	Not applicable
	Lauroyl Lysine	Not applicable
c) Transport hazard class		
	Titanium Dioxide	Not applicable
	Lauroyl Lysine	Not applicable
d) Packing group		
	Titanium Dioxide	Not applicable
	Lauroyl Lysine	Not applicable
e) Marin pollution		
	Titanium Dioxide	No data
	Lauroyl Lysine	No data
f) Special precaution for user		
	Titanium Dioxide	No data
	Lauroyl Lysine	No data
g) IATA		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated

## 15. REGULATORY INFORMATION

a) Safety, health and environmental regulations		
Korean		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
U.S. Federal		
OSHA		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
CERCLA		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
EPCRA 302		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
EPCRA 304		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
EPCRA 313		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
Rotterdam Convention(PIC)		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated
Stockholm Convention(POPs)		
	Titanium Dioxide	Not regulated
	Lauroyl Lysine	Not regulated

Montreal Protocol	
Titanium Dioxide	Not regulated
Lauroyl Lysine	Not regulated
EU	
Classification	
Titanium Dioxide	Not regulated
Lauroyl Lysine	Not regulated
Risk Phrase	
Titanium Dioxide	Not regulated
Lauroyl Lysine	Not regulated
Safety phrase	
Titanium Dioxide	Not regulated
Lauroyl Lysine	Not regulated

#### 16. OTHER INFORMATION

a) Issuing date	2019.01.17
b) Revision number and date	
Revision number	0
Revision date	-
c) Others :	For more information contact product safety at EastHill Corporation Hyundai Coretel 1003, 341, Sanbon-ro, Gunpo-si, Gyeonggi-do 15865, Republic of Korea. TEL : 82-31-396-5182 FAX : 82-31-396-5183

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