EastHill Corporation

Appendix 5. 1st Issuing Date : 2018.04.24, Revision Date : ----,--,--, Rev.No. : --

< Material Safety Data Sheet >

Product Name : EHMB Green (A)

1. IDENTIFICATION

A. Product name

- EHMB Green (A)

B. Recommended use and restriction on use

- General use : Cosmetics
- Restriction on use : Not available

C. Manufacturer / Supplier / Distributor information

- Company name : EastHill Corporation
- Address : Hyundai Coretel 1003, 341, Sanbon-ro, Gunpo-si, Gyeonggi-do 15865, Korea.
- Emergency telephone number : Tel) 031-396-5182
- Fax number : Fax) 031-396-5183

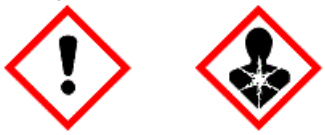
2. HAZARD IDENTIFICATION

A. GHS Classification

- Serious eye damage/irritation : Category2A
- Respiratory sensitization : Category1
- Skin sensitization : Category1
- Carcinogenicity : Category2

B. GHS label elements

○ **Hazard symbols**



○ **Signal words**

- Danger

○ **Hazard statements**

- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H351 Suspected of causing cancer

○ **Precautionary statements**

1) Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust/fume.
- P264 Wash hands thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P285 In case of inadequate ventilation wear respiratory protection.

2) Response

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P321 Specific treatment
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P363 Wash contaminated clothing before reuse.

3) Storage

- P405 Store locked up.

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

C. Other hazards which do not result in classification : (NFPA Classification)

○ **NFPA grade (0 ~ 4 level)**

- Health : 2, Flammability : 0, Reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

INCI NAME	CONTENT(%)	CAS.No
Talc	Confidential	14807-96-6
Titanium Dioxide		13463-67-7
Chromium oxide (Green)		1308-38-9
Aluminum Hydroxide		21645-51-2
Cetyl PEG/PPG-10/1 Dimethicone		144243-53-8
Hydrogen Dimethicone		68037-59-2
Triethoxycaprylylsilane		2943-75-1
Iron Oxides (CI 77492)		51274-00-1
Triethoxysilylethyl Polydimethylsiloxyethyl Hexyl Dimethicone		-

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Remove contact lenses if worn.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Wash thoroughly after handling.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Get medical attention immediately.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.
- If exposed or concerned, get medical attention/advice.
- Remove to fresh air and keep at rest in a position comfortable for breathing.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Cool containers with water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Notify your local firestation and inform the location of the fire and characteristics hazard.
- Using a unattended and water devices in case of large fire and leave alone to burn if you do not imperative.
- Avoid inhalation of materials or combustion by-products.
- Keep containers cool with water spray.
- Fine powder may cause ignition.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.
- Handling the damaged containers or spilled material after wearing protective equipment.
- Avoid dust formation.
- Moist with water to prevent dust scattering.
- Avoid skin contact and inhalation.
- Cleanup and disposal under expert supervision is advised.
- Keep unauthorized people away,isolate hazard area and deny entry.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Dust spills : Cover dust spills with plastic sheet or waterproof cloth to minimize spreading and avoid contact with water.
- Small liquid state spills: Appropriate container for disposal of spilled material collected.
- For disposal of spilled material in appropriate containers collected and clear surface.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Since emptied containers retain product residue(vapor, liquid, solid) follow all MSDS and label warnings even after container is emptied.
- Do not handle until all safety precautions have been read and understood.
- Operators should wear antistatic footwear and clothing.
- Minimize occurrence of dust and accumulation.`
- Contaminated work clothing should not be allowed out of the workplace.

B. Conditions for safe storage, including any incompatibilities

- Check regularly for leaks.
- Do not use damaged containers.
- Do not apply direct heat.
- Do not apply any physical shock to container.
- Avoid direct sunlight.
- By specifying a storage area for carcinogenic substances.
- Collected them in sealed containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

○ **ACGIH TLV**

- [Talc] : TWA 2 mg/m3, Respirable particulate matter (containing no asbestos and <1% crystalline silica)
- [Titanium Dioxide] : TWA 10 mg/m3

○ **OSHA PEL**

- [Talc]: 20 mppcf (containing no asbestos, respirable dust), 0.1 fiber/cm3 TWA, 1.0 fiber/cm3 Excursion Limit (30 minutes)(containing asbestos)
- [Titanium Dioxide]: 15 mg/m3 (Total dust)
- [Chromium oxide (Green)]: 0.5mg/m3
- [Chromium oxide (Green)]: 1mg/m3

B. Engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the Exposure Limits. 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. The use of local exhaust ventilation is recommended to control emissions near the source.

C. Individual protection measures, such as personal protective equipment

○ **Respiratory protection**

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.
- Consider warning properties before use.
- Dust, mist, fume-purifying respiratory protection
- Any air-purifying respirator with a corpuscle filter of high efficiency
- Any respiratory protection with a electromotion fan(for dust, mist, fume-purifying)
- Self-contained breathing apparatus with a corpuscle filter of high efficiency
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.

○ **Eye protection**

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

○ **Hand protection**

- Wear appropriate glove.

○ **Skin protection**

- Wear appropriate clothing.

○ **Others**

- Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Powder
- Color	Green
B. Odor	Slightly Characteristic Odor
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	Not available
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	Not available
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not available
L. Solubility	Not available
M. Vapour density	Not available
N. Specific gravity(Relative density)	Not available
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

○ **(Respiratory tracts)**

- May cause allergy or asthma symptoms or breathing difficulties if inhaled

○ **(Oral)**

- Not available

○ **(Eye·Skin)**

- Causes serious eye irritation
- May cause an allergic skin reaction

B. Delayed and immediate effects and also chronic effects from short and long term exposure

○ **Acute toxicity**

*** Oral**

- Product (ATEmix) : >5000mg/kg
- [Talc] : LD50 >5,000 mg/kg rat (GLP, ECHA)

- [Titanium Dioxide] : LD50 > 10000 ㎎/kg Rat (HSDB)
- [Aluminum Hydroxide] : LD50 > 5000 ㎎/kg Rat (OECD TG 401; IUCLID; HSDB)
- [Triethoxycaprylylsilane] : LD50 = 10600 ㎎/kg Rat (NLM)

*** Dermal**

- Product (ATEmix) : >5000mg/kg
- [Talc] : LD50 >2,000 mg/kg rat (GLP, ECHA)
- [Titanium Dioxide] : LD50 > 10000 ㎎/kg Rabbit (IUCLID)
- [Triethoxycaprylylsilane] : LD50 = 5910 mg/kg Rabbit (NLM)

*** Inhalation**

- Product (ATEmix) : Not available
- [Talc] : LC50 >2.1 mg/L/4hr Magnesium hydroxide (GLP, ECHA)
- [Titanium Dioxide] : LC50 >3.43 ㎎/ℓ Rat (OECD TG 403)

○ **Skin corrosion/irritation**

- Not available

○ **Serious eye damage/irritation**

- Causes serious eye irritation

○ **Respiratory sensitization**

- May cause allergy or asthma symptoms or breathing difficulties if inhaled

○ **Skin sensitization**

- May cause an allergic skin reaction

○ **Carcinogenicity**

*** IARC**

- [Talc] : Group 1 (Talc(containing asbestos fibers))
- [Talc] : Group 3 (Talc not containing asbestos or asbestiform fibres)
- [Talc] : Group 2B (Talc-based body powder (perineal use of))
- [Titanium Dioxide] : Group 2B
- [Chromium oxide (Green)] : Group 3 (Chromium [III] compounds)

*** OSHA**

- Not available

*** ACGIH**

- [Talc] : A1 (Talc(containing asbestos fibers))
- [Talc] : A4 (Talc(containing no asbestos fibers))
- [Titanium Dioxide] : A4
- [Chromium oxide (Green)] : A4 (Chromium (III) compounds, inorganic compounds)

*** NTP**

- Not available

*** EU CLP**

- Not available

○ **Germ cell mutagenicity**

- Not available

○ **Reproductive toxicity**

- Not available

○ **STOT-single exposure**

- Not available

○ **STOT-repeated exposure**

- Not available

○ **Aspiration hazard**

- Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

○ **Fish**

- [Talc] : LC50 100000 ㎎/ℓ 24 hr Brachydanio rerio (IUCLID)
- [Titanium Dioxide] : LL50 >100 ㎎/ℓ 96 hr Oryzias latipes(OECD TG 203)
- [Aluminum Hydroxide] : LC50 100 ㎎/ℓ 96 hr (Salmo trutta) (반지수식, OECD TG 203, IUCLID)
- [Triethoxycaprylylsilane] : LC50 1.607 ㎎/ℓ 96 hr (Estimate)

○ **Crustaceans**

- [Talc] : LC50 = 94983.781 ㎎/ℓ 48 hr
- [Titanium Dioxide] : EC50 >100 ㎎/ℓ 48 hr Daphnia magna(48h-EL50Daphnia magna>100 mg/L, 48h-EC50>100, 48h-EC10=91.2 mg/L, OECD TG 202)
- [Chromium oxide (Green)] : LC50 0.162 ㎎/ℓ 48 hr (NITE)
- [Aluminum Hydroxide] : EC50 100 ㎎/ℓ 48 hr Daphnia magna (OECD TG 202, IUCLID)
- [Triethoxycaprylylsilane] : LC50 2.010 ㎎/ℓ 48 hr (Estimate)

○ **Algae**

- [Talc] : LC50 = 48545.539 ㎎/ℓ
- [Titanium Dioxide] : ErL50 >100 ㎎/ℓ 72 hr (Pseudokirchneriella subcapitata, 72h-ErL50 Pseudokirchneriella subcapitata >100 mg/L growth rate, static, 72h-EyL50 >100 mg/L static, OECD TG 201)
- [Aluminum Hydroxide] : EC50 100 ㎎/ℓ 72 hr Selenastrum capricornutum (OECD TG 201, IUCLID)
- [Triethoxycaprylylsilane] : EC50 1.000 ㎎/ℓ 96 hr (Estimate)

B. Persistence and degradability

○ **Persistence**

- [Talc] : log Kow -1.50 (Estimate)
- [Hydrogen Dimethicone] : log Kow 4.84 (Estimate)
- [Triethoxycaprylylsilane] : log Kow 4.24 (Estimate)

○ **Degradability**

- Not available

C. Bioaccumulative potential

○ **Bioaccumulative potential**

- [Aluminum Hydroxide] : BCF 3.162 (Estimate)
- [Hydrogen Dimethicone] : BCF 723.4 (Estimate)
- [Triethoxycaprylylsilane] : BCF 36.67 (Estimate)

○ **Biodegration**

- Not available

D. Mobility in soil

- [Hydrogen Dimethicone] : Koc = 15860 (Estimates)

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat seperatly, then can be reduction or stabilization by incineration or similar process.
- If water separation is possible, pre-process with Water separation process.
- Dispose by incineration.

B. Special precautions for disposal

- The user of this product must disposal by oneself or entrust to waste disposer or person who other's waste recycle and dispose, person who establish and operate waste disposal facilities.
- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

A. UN No. (IMDG CODE/IATA DGR)

- Not applicable

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG CODE/IATA DGR Packing group

- Not applicable

E. Marine pollutant

- Not applicable

F. Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE : Not available
- Air transport(IATA): Not subject to IATA regulations.

15. REGULATORY INFORMATION

A. National and/or international regulatory information

○ **POPs Management Law**

- Not applicable

○ **Information of EU Classification**

*** Classification**

- Not applicable

○ **U.S. Federal regulations**

*** OSHA PROCESS SAFETY (29CFR1910.119)**

- Not applicable

*** CERCLA Section 103 (40CFR302.4)**

- Not applicable

*** EPCRA Section 302 (40CFR355.30)**

- Not applicable

*** EPCRA Section 304 (40CFR355.40)**

- Not applicable

*** EPCRA Section 313 (40CFR372.65)**

- Not applicable

○ **Rotterdam Convention listed ingredients**

- Not applicable

○ **Stockholm Convention listed ingredients**

- Not applicable

○ **Montreal Protocol listed ingredients**

- Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2018-04-24

C. Revision number and Last date revised

- Not applicable

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).