1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

| 1.1 Product Name: | MeG E-20 |
|-------------------------------------|---|
| 1.2 CAS Reg Number: | 68239-42-9 |
| 1.3 Chemical Classification: | Derivative of methyl glucoside |
| 1.4 Dangerous Goods Classification: | Not assessed |
| 1.5 Company Details: | |
| Manufacture/Supplier: | HANGZHOU LINGEBA TECHNOLOGY CO., LTD. |
| Address: | Office 1-913, NewYouth Plaza, GongShu District, HangZhou, |
| | ZheJiang, P.R.China |
| Telephone Number: | Tel: 0086-571-87389059 Fax: 0086-571-87389060 |
| Emergency Telephone Number: | Tel: 0086-13958048106 |
| Contact Person: | Environment, Health and Safety Manager |

2. COMPOSITION/INFORMATION ON INGREDIENS

| 2.1 Chemical characterization | on: | Low molecular polymer | |
|-------------------------------|------------|-------------------------------|-------------------------------|
| 2.2 Physical Form: | | Viscous liquid | |
| 2.3 Color: | | Light yellow | |
| 2.4 Use: | | Cosmetics additive, surfactar | nt |
| 2.5 Hazardous Ingredients: | | None | |
| Chemical Name | CAS No. | <u>% (w/w)</u> | Symbols & Health Risk Phrases |
| Methyl gluceth-20 | 68239-42-9 | | |

3. HAZARDS IDENTIFICATION 3.1 Overall Hazard Classification: Not hazardous. 3.2 Hazard Information: Not hazardous. 3.3 Route of Exposure: Skin contact and accidental ingestion. 3.4 Possible Health Effects: Acute Eyes: Irritant. Can cause redness, irritation, tearing. Skin: No irritating. Inhalation: No probability of inhalation through breath system. Ingestion: Practically non-toxic. **Chronic** This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens. 3.5 Signs and Symptoms of Overexposure: No significant adverse effects from a single exposure expected from normal use.

4. FIRST AID MEASURES

| 4.1 Eyes: | Hold eyelids open and flush with a steady, gentle stream of water for |
|-------------------------|---|
| | at least 15 minutes. Seek medical attention. |
| 4.2 Skin: | In case of contact, immediately wash with plenty of water for at |
| | least 5 minutes. Seek medical attention if still feeling irritating . |
| 4.3 Inhalation: | This product has no probability of inhalation through breath system. |
| 4.4 Ingestion: | If victim is conscious and alert, give 1-2 glasses of water to drink. |
| | Do not give anything by mouth to an unconscious person. Seek |
| | medical attention. Do not leave victim unattended. |
| 4.5 Comments: | |
| 4.6 Note to physicians: | Treat symptomatically. |

| 5. FIRE FIGHTING MEASURES | |
|---------------------------------------|---|
| | |
| 5.1 Autoigntion: | Not available. |
| 5.2 Flash point: | 313°C, COC |
| 5.3 Extinguishing Media: | Water, dry chemical, carbon dioxide, foam, halon. |
| 5.4 Special Fire Fighting Procedures: | Firefighters should wear NIOSH/MSHA approved self-contained |
| | breathing apparatus and full protective clothing. |
| 5.5 Fire & Explosion Hazards: | Product will burn under fire conditions. |
| 5.6 Hazardous Combustion Products: | Carbon monoxide, carbon dioxide, and other unknown |
| | hydrocarbons. |
| 5.7 Lower Explosion Limit: | Not applicable. |
| 5.8 Upper Explosion Limit: | Not applicable. |
| 5.9 Flammability Hazard Class: | 1=slight. |

| 6. ACCIDENTAL RELEASE MEASURES | |
|-------------------------------------|--|
| 6.1 Personal Precaution: | Avoid eyes/face contact. Avoid skin contact long time. Do not take |
| | internally. |
| 6.2 Environmental Precautions: | Do not flush to drain. |
| 6.3 Spill and Leak Procedures: | Collect just by common tool. Clean up residual material by washing |
| | area with water. Collect washings for disposal. |
| 7. HANDLING AND STORAGE | |
| | |
| 7.1 Handling: | Avoid direct or prolonged contact with eyes. |
| 7.2 Storage Conditions: | SHIP AND STORE BETWEEN 10-50°C. Store in tightly closed |
| | containers. Store in an area that is dry, well-ventilated, away from |
| | incompatible materials (see Section 10. Stability and Reactivity), |
| | Expected shelf life if stored at recommended temperatures: 24 |
| | months. |
| 7.3 Unsuitable Packaging Materials: | None established. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Industrial Hygiene Standards:

| i | | |
|---|-------------------|--|
| Ingredients | CAS No. | Exposure Limits |
| Methyl gluceth-20 | 68239-42-9 | None |
| 8.2 Engineering Controls | | |
| Local Ventilation: | Recommended. | |
| General Ventilation: | Recommended. | |
| 8.3 Personal Protective Equipment for Routi | ne Handling | |
| Respiratory protection: | When respirate | ors are required, select NIOSH/MSHA approved |
| | equipment base | d on actual or potential airborne concentrations and |
| | in accordance | with the appropriate regulatory standards and/or |
| | industrial recor | nmendations. For reasonably foreseeable industrial |
| | end uses of th | is material, respiratory protection should not be |
| | necessary. | |
| Eye protection: | Eye and face | protection requirements will vary dependent upon |
| | work environn | nent conditions and material handling practices. |
| | Appropriate AN | ISI Z87 approved equipment should be selected for |
| | the particular u | se intended for this material. Eye contact should be |
| | prevented throu | gh use of chemical safety glasses with side shields |
| | or splash proof | goggles. An emergency eye wash must be readily |
| | accessible to the | e work area. |
| Hand protection: | Skin contact s | hould be minimized through use of gloves and |
| | suitable long-sl | eeved clothing (i.e., shirts and pants). Consideration |
| | must be given b | oth to durability as well as permeation resistance. |
| Clothing Requirements: | Uniforms, cove | ralls, or a lab coat should be worn. |
| Change/Removal Of Clothing: | Remove contan | inated clothing and launder before reuse. |
| Wash Requirements: | Wash exposed a | reas with soap and water. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| 9.1 | Physical Form: | Viscous liquid |
|-------|---------------------------------------|---|
| 9.2 | Color: | Light yellow |
| 9.3 | Odor: | No odor |
| 9.4 | PH(1% water solution): | 6.0-7.5 |
| 9.5 | Solubility in water: | Soluble |
| 9.6 | Specific Gravity: | 1.0 |
| 9.7 | Melting Point Range: | Not available |
| 9.8 | Freezing Point Range: | Not available |
| 9.9 | Vapor Density: | Not available |
| 9.10 | Boiling Point Range: | >316°C |
| The | above information is not intended for | use in preparing product specifications. Contact Tiancheng before |
| writi | ing specifications. | |

10. STABILITY AND REACTIVITY

| 10.1 Stability: | Stable. |
|-------------------------------|--|
| 10.2 Stability Detail: | Stable under normal temperature and pressure. Conditions To Be |
| | Avoided: heat, open flame, spark. Materials/Chemicals To Be |
| | Avoided: strong acids, strong oxidizing agents. |
| 10.3 Reactivity Hazard Class: | Minimal. Hazardous polymerization will not occur. |

11. TOXICOLOGICAL INFORMATION

| 11.1 Possible Health Effects: | Refer to Section 3.4. |
|---------------------------------------|--|
| 11.2 Carcinogenic Effects: | None. |
| 11.3 Other Toxicological Information: | eye - eye irritation, rabbit. Slightly irritating. Skin-skin irritation, |
| | rabbit. No irritating. LD_{50} - lethal dose 50% of test species, ${>}5000$ |
| | mg/kg, rat. |

12. ECOLOGICAL INFORMATION

12.1 Potential To Bioaccumulate:12.2 Aquatic Toxicity:

None established.

13. DISPOSAL CONSIDERATIONS

| 13.1 Product Disposal: | Dispose of in accordance with local regulations. |
|--------------------------|---|
| 13.2 Packaging Disposal: | Any containers or equipment used should be decontaminated |
| | immediately after use. |

14. TRANSPORT INFORMATION

| 14.1 Road and Rail Transport: | Not assessed. |
|-------------------------------|----------------------------------|
| 14.2 Sea Transport (IMDG): | Not subject to IMDG code. |
| 14.3 Air Transport (ICAO): | Not subject to ICAO regulations. |

15. REGULATORY INFORMATION

| 15.1 Applicable Laws: | Provisions of the Regulations for the Safe Handling of Chemicals in the Workplace, particularly those relating to the safe use, production, storage and transportation of dangerous chemicals. |
|----------------------------|--|
| 15.2 Chemical Inventories: | |
| AICS: | All ingredients listed or exempt. |
| DSL: | All chemical substances in this material are included on or |
| | exempted from the DSL. |
| MITI: | All components are listed on ENCS or its exempt rule. |
| KECL: | one or more ingredients are not on the inventory. |
| EINECS: | All ingredients listed or exempt. |
| TSCA: | All chemical substances in this material are included on or |
| | exempted from listing on the TSCA Inventory of Chemical |

Substances.

16. OTHER INFORMATION

Contact Point: Prepared by: Technical Services Engineer 0086 571 87389059 HANGZHOU LINGEBA TECHNOLOGY CO., LTD.

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.