Material Safety Data Sheet

Tinci (R) TCA-5560

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 INCI Name: PHENYL TRIMETHICONE
1.2 CAS No: 73559-47-4
1.3 Chemical Classification: Silicone resin.
1.4 Dangerous Goods Classification: Not applicable.
1.5 Company Details:
   Manufacture/Supplier: Guangzhou Tinci Materials Technology Co., Ltd
   Address: Kangda Road No.8, Yunpu Industrial Zone, Huangpu Region, GuangZhou
   Telephone Number: (86 20)82251159  fax No.(86 20)82058669
   Emergency Telephone Number: (86 20)82251159
   Contact Person: Technical support engineer
1.6 The date of taking effect: January 2010

2. COMPOSITION/INFORMATION ON INGREDIENTS

2.1 Chemical characterization: Mixture
2.2 Physical Form: Liquid
2.3 Color: colorless
2.4 Use: Cosmetic additive
2.5 Hazardous Ingredients:
   Chemical Name       CAS No       % (w/w)    Symbols & Health Risk Phrases
   Trimethyl phenyl    73559-47-4   >60         Toxic.
   silesquioxane      

According to European Commission Directive 1999/45/EC (Article 3 [3])

3. HAZARDS IDENTIFICATION

3.1 Overall Hazard Classification: Toxic.
3.2 Hazard Information:
   Toxic by inhalation.
   May cause long-term adverse effects in the aquatic environment. Do not breathe spray. Avoid contact with eyes.
   In case of fire and/or explosion do not breathe fumes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
   Use only in well-ventilated areas. Avoid release to the environment. Refer to special instructions/Safety data sheets.

3.3 Route of Exposure:
   Inhalation, Skin Contact and Accidental Ingestion.
3.4 Possible Health Effects:
   Acute
   Eyes: Direct contact may cause temporary redness and discomfort.
   Skin: No significant irritation expected from a single short-term exposure.
   Inhalation: Mist may cause chemical pneumonia characterized by swelling and inflammation of the lungs. Aerosol mist toxic by inhalation.
   Ingestion: Low ingestion hazard in normal use.
   Chronic
   Skin: No known applicable information.
   Inhalation: No known applicable information.
   Ingestion: Repeated ingestion or swallowing large amounts may injure internally.
3.5 Signs and Symptoms of Overexposure:
   May cause poisoning after excessive inhalation.

4. FIRST AID MEASURES

4.1 Eyes: Immediately flush with water for 15 minutes.
4.2 Skin: No first aid should be need.
Material Safety Data Sheet

Tinci (R)  TCA-5560

4.3 Inhalation: Remove to fresh air. Get immediate medical attention.
4.4 Ingestion: Get medical attention.
4.5 Comments: Treat according to person’s condition and specifics of exposure.
4.6 Note to physicians: Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Flammability: Non-flammable.
5.2 Flash point: >101°C (Closed Cup)
5.3 Autoignition temperature: Not determined.
5.4 Lower Flammability Limit: Not determined.
5.5 Upper Flammability Limit: Not determined.
5.6 Hazardous Properties: None.
5.7 Extinguishing Media: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.
5.8 Special Fire Fighting Procedures and Equipment: Determine the need to evacuate or isolate the area according to your local emergency plan. Self-contained breathing apparatus and protective clothing should be worn in fight large fires involving chemicals. Use water spray to keep fire exposed containers cool.
5.9 Hazardous Combustion Products: Silicon dioxide. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.
5.10 Unsuitable Extinguishing Media: None established.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precaution: Avoid skin and eye contact. Avoid breathing mist. Keep container closed. Do not take internally.
6.2 Environmental Precautions: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.
6.3 Methods for Cleaning up: Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since some silicone materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which laws and regulations are applicable.

7. HANDLING AND STORAGE

7.1 Handling Precautions: Use with adequate ventilation. Traces of benzene (carcinogen) may form if heated in air above 300 degrees F (149 degrees C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Avoid eye contact. Do not breathe mist. Keep container closed. Do not take internally. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
7.2 Storage Conditions: Use reasonable care and store away from oxidizing materials.
7.3 Unsuitable Packaging Materials: None established

8. EXPOSURE CONTROLS/PERSOINAL PROTECTION

8.1 Industrial Hygiene Standards
   Ingredients    CAS No.   Exposure Limits
   Trimethyl phenyl silsesquioxane 73559-47-4  None established.
8.2 Engineering Controls:
   Local Ventilation: Recommended.
   General Ventilation: Recommended.
8.3 Personal Protective Equipment for Routine Handling

DOC NO.: TC-TE-RES-100  2/4
Version: A/1   Last update: 2010-01-15
Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: Dust/Mist Type. High Efficiency Particulate Air (HEPA) Filter Type.

Eye protection: Use proper protection—safety glasses as a minimum.

Hand protection: No special protection needed.

Skin protection: Washing at mealtime and end of shift is adequate.

Hygiene Measures: Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

8.4 Personal Protective Equipment for Spills

Respiratory protection: Use self-contained breathing apparatus (SCBA) or other supplied-air respirator.

Eye protection: Use full face respirator.

Skin protection: Washing at mealtime and end of shift is adequate.

Precautionary Measures: Avoid eye contact. Do not breathe mist. Keep container closed. Do not take internally. Use reasonable care.

Comments: Traces of benzene (carcinogen) may form if heated in air above 300 degrees F (149 degrees C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry (SEHSC) or contact the Tinci customer service group.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Physical Form: Liquid
9.2 Color: colorless
9.3 Odor: Odorless
9.4 pH: Not determined.
9.5 Solubility in Water: Not determined.
9.6 Boiling Point: > 65°C
9.7 Melt Point: Not determined.
9.8 Flash Point: >101°C (Closed Cup)
9.9 Autoignition Temperature: Not determined.
9.10 Explosive properties: No
9.11 Oxidizing properties: No
9.12 Vapor Pressure @25°C: Not determined.
9.13 Specific Gravity: 0.97-1.10
9.15 Vapor Density (air=1): Not determined.
9.16 Viscosity (25°C mpa·s): 16-60
9.17 Molecular Weight: Not determined.

The above information is not intended for use in preparing product specifications. Contact Tinci before writing specifications.

10. STABILITY AND REACTIVITY

10.1 Stability: Stable.
10.2 Reactivity: Conditions to Avoid: None.

Materials to Avoid: Can react with strong oxidising agents.

Hazardous Decomposition Products: Silicon dioxide. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

Hazardous Polymerization: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

11.1 Possible Health Effects: Refer to Section 3.4
### 11.2 Sensitizing Effects:

None know.

#### 11.3 Mutagenic Effects:

None know.

#### 11.4 Reproductive Effects:

None known.

#### 11.5 Carcinogenic Effects:

None known.

#### 11.6 Other Health Hazard Information:

Recent study shows that rats exposed via inhalation to aerosol of trimethyl phenyl silsesquioxane display a high order of toxicity (4 hour LC50 0.47 mg/L). These responses have not been observed in animals exposed via other routes (oral ingestion and dermal).

The above listed potential effects of overexposure are based on actual data, the results of studies performed upon similar compositions, component data, and/or expert review of the products.

### 12. ECOLOGICAL INFORMATION

#### 12.1 Environmental Fate and Distribution:

Low molecular weight volatile siloxanes have very low water solubility and evaporate to air. Low molecular weight volatile siloxanes in air are degraded by reaction with hydroxyl radicals, which is the dominant degradation process for most chemicals in the atmosphere. Low molecular weight volatile siloxanes in soil are removed by several simultaneously occurring processes including volatilisation, hydrolysis, and clay-catalysed degradation.

#### 12.2 Environmental Effects:

Bioaccumulation:

May cause long-term adverse effects in the aquatic environment.

#### 12.3 Fate and Effects in Waste Water Treatment Plants:

No adverse effects on bacteria. The siloxanes in this product do not contribute to the BOD. Low molecular weight volatile siloxanes are efficiently removed >90% during wastewater treatment with approximately equal amounts going to the atmosphere and the sludge. Low molecular weight volatile siloxanes in treated wastewater effluent will be bound to particulate matter because of very low water solubility.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Product Disposal:

Dispose of in accordance with local regulations.

#### 13.2 Packaging Disposal:

Dispose of in accordance with local regulations.

### 14. TRANSPORT INFORMATION

#### 14.1 Road and Rail Transport:

Not applicable.

#### 14.2 Sea Transport (IMDG):

Not subject to IMDG code.

#### 14.3 Air Transport (IATA):

Not subject to IATA 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.
- **IECSC:** All ingredients listed or exempt.
- **MITI:** All components are listed on ENCS or its exempt rule.
- **KECL:** All ingredients listed, exempt or notified.
- **EINECS:** All ingredients listed or exempt.
- **PICCS:** 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:** Technical Services Engineer (86 20) 82251159
- **Prepared by:** Guangzhou Tinci Materials 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.

® Indicates Registered Trademark