TCI (Shanghai) DEVELOPMENT CO., LTD.

**Caffeic Acid** 

**Revision number:** 1

**Revision date:** 11/29/2010

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# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: **Product code:** Company: Address: **Responsible Department:** Telephone: Fax: e-mail: **Revision number:** 

Caffeic Acid C0002 TCI (Shanghai) DEVELOPMENT CO., LTD. No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China Sales Department +86-(0)21-67121386 +86-(0)21-67121385 sales@tcishanghai.com.cn 1

## 2. HAZARDS IDENTIFICATION

**Classification of the GHS PHYSICAL HAZARDS HEALTH HAZARDS** Skin corrosion/irritation Serious eye damage/eye irritation Carcinogenicity **ENVIRONMENTAL HAZARDS GHS** label elements Pictograms or hazard symbols



Signal word

| Hazard statement         | Causes skin irritation  |
|--------------------------|---|
|                          | Causes serious eye irritation   |
|                          | Suspected of causing cancer   |
| Precautionary statements |   |
| [Prevention]             | Obtain special instructions before use.   |
|                          | Do not handle until all safety precautions have been read and understood.           |
|                          | Wash hands thoroughly after handling.   |
|                          | Wear protective gloves/eye protection/face protection.                              |
| [Response]               | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, |
| []                       | if present and easy to do. Continue rinsing.  |
|                          | If eye irritation persists: Get medical advice/attention.                           |
|                          | IF ON SKIN: Gently wash with plenty of soap and water.                              |
|                          | If skin irritation occurs: Get medical advice/attention.                            |
|                          | Take off contaminated clothing and wash before reuse.                               |
|                          | IF exposed or concerned: Get medical advice/attention.                              |
| [Storage]                | Store locked up.  |
| [Disposal]               | Dispose of contents/container through a waste management company authorized by      |
|                          | the local government  |
|                          |   |

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Substance/mixture: | Substance    |
|--------------------|--------------|
| Component(s):      | Caffeic Acid |
| Percent:           | >98.0%(T)    |
| CAS Number:        | 331-39-5     |

Not classified

Category 2 Category 2A Category 2 Not classified

Warning

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Synonyms:         | 3,4-Dihydroxycinnamic Acid |
|-------------------|----------------------------|
| Chemical Formula: | $C_9H_8O_4$                |

| 4. F | IRST AID MEASURES                |   |
|------|----------------------------------|---|
|      | Inhalation:                      | Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>Get medical advice/attention.   |
|      | Skin contact:                    | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.   |
|      | Eye contact:                     | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention.  |
|      | Ingestion:                       | Get medical advice/attention.Rinse mouth.   |
|      | Protection of first-aiders:      | A rescuer should wear personal protective equipment, such as rubber gloves and air-<br>tight goggles.   |
| 5. F | <b>IRE-FIGHTING MEASURES</b>     | 6   |
|      | Suitable extinguishing<br>media: | Dry chemical, foam, water spray, carbon dioxide.  |
|      | Specific methods:                | Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. |

**Special protective** When extinguishing fire, be sure to wear personal protective equipment. equipment for firefighters:

## 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions,<br>protective equipment and | Use extra personal protective equipment (P3 filter respirator for toxic particles). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should |
|---|--|
| emergency procedures:                             | be controlled around the leakage area by roping off, etc.  |
| Environmental precautions                         | Prevent product from entering drains.  |
| Methods and materials for                         | Sweep dust to collect it into an airtight container, taking care not to disperse it.   |
| containment and cleaning                          | Adhered or collected material should be promptly disposed of, in accordance with   |
| up:   | appropriate laws and regulations.  |

## 7. HANDLING AND STORAGE

Handling

| Technical measures:      | Handling is performed in a well ventilated place. Wear suitable protective equipment.<br>Prevent dispersion of dust. Wash hands and face thoroughly after handling.<br>Use a closed system if possible. Use a local exhaust if dust or aerosol will be<br>generated. |
|--------------------------|--|
| Advice on safe handling: | Avoid all contact!   |
| Storage                  |  |
| Storage conditions:      | Keep container tightly closed. Store in a cool and dark place.   |
| -                        | Store locked up.   |
|                          | Store away from incompatible materials such as oxidizing agents.   |
| Packaging material:      | Law is followed.   |

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Install a closed system or local exhaust. Also install safety shower and eye bath. **Personal protective equipment** 

| Respiratory protection:   | n: Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator<br>etc. Use respirators approved under appropriate government standards and follo<br>local and national regulations. |  |
|---------------------------|--|--|
| Hand protection:          | Impervious gloves.   |  |
| Eye protection:           | Safety goggles. A face-shield, if the situation requires.  |  |
| Skin and body protection: | Impervious protective clothing. Protective boots, if the situation requires.   |  |

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C):      | Solid                                       |
|-----------------------------|---|
| Form:                       | crystal - powder                            |
| Color:                      | Very pale yellow - Pale yellow              |
| Odor:                       | No data available                           |
| pH:                         | No data available                           |
| Melting point/freezing poin | t:No data available                         |
| Boiling Point/Range:        | No data available                           |
| Flash Point:                | No data available                           |
| Explosive limits            |   |
| Lower:                      | No data available                           |
| Upper:                      | No data available                           |
| Density:                    | No data available                           |
| Solubility:                 | Very soluble in : Alcohol                   |
|                             | Soluble in : Ethyl acetate                  |
|                             | Slightly soluble in: Water                  |
|                             | Very slightly soluble in: Chloroform Hexane |
| log Pow =                   | 0.82  |
|                             |   |

# **10. STABILITY AND REACTIVITY**

| Stability:               | Stable under proper conditions.          |
|--------------------------|--|
| Reactivity:              | No special reactivity has been reported. |
| Incompartible materials: | oxidizing agents, strong bases           |
| Hazardous Decomposition  | Carbon monoxide, Carbon dioxide          |
| Products:                |  |

## **11. TOXICOLOGICAL INFORMATION**

| Acute Toxicity:            | ipr-mus LD50:>721 mg/kg<br>ipr-rat LDLo:1500 mg/kg |
|----------------------------|--|
| Skin corrosion/irritation: | No data available                                  |
| Serious eye                | No data available                                  |
| damage/irritation:         |  |
| Germ cell mutagenicity:    | cyt-ham-ovr 200 mg/L                               |
|                            | mrc-smc 300 mg/L                                   |
| Carcinogenicity:           | orl-mus TDLo:1613 g/kg/96W-C                       |
|                            | orl-rat TDLo:728 g/kg/2Y-C                         |
| IARC =                     | Group 2B (Possibly carcinogenic to humans).        |
| NTP =                      | No data available                                  |
| Reproductive toxicity:     | No data available                                  |
| RTECS Number:              | GD8950000  |

## **12. ECOLOGICAL INFORMATION**

| Ecotoxicity:                     |                         |
|----------------------------------|-------------------------|
| Fish:                            | No data available       |
| Crustacea:                       | No data available       |
| Algae:                           | No data available       |
| Persistence / degradability:     | No data available       |
| Bioaccumulative                  | 3.2                     |
| potential(BCF):                  |                         |
| Mobillity in soil                |                         |
| log Pow:                         | 0.82                    |
| Soil adsorption (Koc):           | 100                     |
| Henry's Law                      | 1.4 x 10 <sup>-11</sup> |
| constant(PaM <sup>3</sup> /mol): |                         |

## **13. DISPOSAL CONSIDERATIONS**

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

### 14. TRANSPORT INFORMATION

Hazards Class:Does not correspond to the classification standard of the United NationsUN-No:Not Listed

#### **15. REGULATORY INFORMATION**

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

#### **16. OTHER INFORMATION**

| The reference compa | any name of written contents   |
|---------------------|--|
| Company:            | TCI (Shanghai) DEVELOPMENT CO., LTD.                                       |
| Address:            | No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China |
| Department:         | R&D (Information Management) Department                                    |
| Telephone:          | +86-(0)21-67121388*461   |
| Fax:                | +86-(0)21-67121385   |

This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority.products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.