TCI (Shanghai) DEVELOPMENT CO., LTD.

**N-Methylmaleimide** 

**Revision number:** 1

**Revision date:** 12/01/2010

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# SAFETY DATA SHEET

TCI (Shanghai) DEVELOPMENT CO., LTD.

#### 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER N-Methylmaleimide

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M0807

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

# 2. HAZARDS IDENTIFICATION

**Classification of the GHS PHYSICAL HAZARDS HEALTH HAZARDS** Acute toxicity (Oral) Acute toxicity (Dermal) Acute toxicity (Inhalation) Skin corrosion/irritation Serious eye damage/eye irritation Skin sensitization **ENVIRONMENTAL HAZARDS** 

#### **GHS** label elements Pictograms or hazard symbols



Signal word Hazard statement

# **Precautionary statements**

Not classified

No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China

Category 4 Category 4 Category 4 Category 1C Category 1 Category 1 Not classified

Danger

Harmful by inhalation, in contact with skin and if swallowed Causes severe skin burns and eye damage May cause an allergic skin reaction

| [Prevention] | Do not breathe.                                                                       |
|--------------|---------------------------------------------------------------------------------------|
| [Frevention] |                                                                                       |
|              | Use only outdoors or in a well-ventilated area.                                       |
|              | Do not eat, drink or smoke when using this product.                                   |
|              | Contaminated work clothing should not be allowed out of the workplace.                |
|              | Wash hands thoroughly after handling.                                                 |
|              | Wear protective gloves and eye/face protection.                                       |
| [Response]   | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for |
|              | breathing. Call a POISON CENTER or doctor/physician if you feel unwell.               |
|              | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                    |
|              | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,   |
|              | if present and easy to do. Continue rinsing.                                          |
|              | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse    |
|              | skin with water/shower.                                                               |
|              | If skin irritation or rash occurs: Get medical advice/attention.                      |
|              | Wash contaminated clothing before reuse.                                              |
|              | Immediately call a POISON CENTER or doctor/physician.                                 |
| [Storage]    | Store locked up.                                                                      |
| [otorage]    |                                                                                       |

### 2. HAZARDS IDENTIFICATION [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):      | N-Methylmaleimide                             |
| Percent:           | >97.0%(GC)(N)                                 |
| CAS Number:        | 930-88-1                                      |
| Chemical Formula:  | C <sub>5</sub> H <sub>5</sub> NO <sub>2</sub> |

tight goggles.

# **4. FIRST AID MEASURES**

| Inhalation:                 | Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>Immediately call a POISON CENTER or doctor/physician.                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin contact:               | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.                         |
| Eye contact:                | Rinse cautiously with water for several minutes. Remove contact lenses, if present<br>and easy to do. Continue rinsing.Immediately call a POISON CENTER or<br>doctor/physician. |
| Ingestion:                  | Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.                                                                                      |
| Protection of first-aiders: | A rescuer should wear personal protective equipment, such as rubber gloves and air-                                                                                             |

# **5. FIRE-FIGHTING MEASURES**

| Suitable extinguishing<br>media:               | Dry chemical, foam, water spray, carbon dioxide.                                                                                                                                                                                                                                  |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specific hazards:                              | Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.                                                                                                                                                                                 |
| 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 equipment for firefighters: | When extinguishing fire, be sure to wear personal protective equipment.                                                                                                                                                                                                           |

# 6. ACCIDENTAL RELEASE MEASURES

| protective equipment and<br>emergency procedures:<br>Environmental precautions:<br>Methods and materials for<br>containment and cleaning | 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 be controlled around the leakage area by roping off, etc.<br>Prevent product from entering drains.<br>Sweep dust to collect it into an airtight container, taking care not to disperse it.<br>Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| up:<br>7. HANDLING AND STORAGE<br>Handling                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

# 7

Handling

| Technical measures:                 | Handling is performed in a well ventilated place. Wear suitable protective equipmen<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:<br>Storage | Avoid contact with skin, eyes and clothing.                                                                                                                                                                                                                        |  |
| Storage conditions:                 | Keep container tightly closed. Store in a cool and dark place.                                                                                                                                                                                                     |  |

### 7. HANDLING AND STORAGE

| ANDLING AND STORAGE |                                                                  |
|---------------------|------------------------------------------------------------------|
|                     | Store under inert gas.                                           |
|                     | Protect from moisture.                                           |
|                     | 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:   | Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow 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:                       | White - Slightly pale yellow |
| Odor:                        | No data available            |
| pH:                          | No data available            |
| Melting point/freezing point | :97 °C                       |
| 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:                  | No data available            |

## **10. STABILITY AND REACTIVITY**

| Stability:               | Stable under proper conditions.                        |
|--------------------------|--------------------------------------------------------|
| Reactivity:              | No special reactivity has been reported.               |
| Conditions to avoid:     | Moisture-sensitive                                     |
| Incompartible materials: | oxidizing agents                                       |
| Hazardous Decomposition  | Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx) |
| Products:                |                                                        |

#### **11. TOXICOLOGICAL INFORMATION**

| Acute Toxicity:            | ipr-mus LDLo:15600 ug/kg |
|----------------------------|--------------------------|
| Skin corrosion/irritation: | No data available        |
| Serious eye                | No data available        |
| damage/irritation:         |                          |
| Germ cell mutagenicity:    | No data available        |
| Carcinogenicity:           |                          |
| IARC =                     | No data available        |
| NTP =                      | No data available        |
| Reproductive toxicity:     | No data available        |
| RTECS Number:              | ON5600000                |

# **12. ECOLOGICAL INFORMATION**

| Ecotoxicity: |                   |
|--------------|-------------------|
| Fish:        | No data available |
| Crustacea:   | No data available |
| Algae:       | No data available |

#### **12. ECOLOGICAL INFORMATION**

| Persistence / degradability:     |                   |
|----------------------------------|-------------------|
| Bioaccumulative                  | No data available |
| potential(BCF):                  |                   |
| Mobillity in soil                |                   |
| log Pow:                         | No data available |
| Soil adsorption (Koc):           | No data available |
| Henry's Law                      | No data available |
| 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:        | 8: Corrosive.           |
|-----------------------|-------------------------|
| UN-No:                | 1759                    |
| Proper shipping name: | Corrosive solid, n.o.s. |
| Packing group:        | III                     |

### **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 company 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                                                                                     |
| SDS was propared since | oroly on the h | asis of the information we could obtained, however, any warranty shall not be given regarding the data |

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.