Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

MSDS Name: 1,2-Dihydroxybenzene
Synonyms: 1,2-Benzenediol; O-Dihydroxybenzene
Company Identification: Shanghai PI Chemicals Ltd.
Room 6-306, Building 2
1341 Pudong South Road
Pudong New Area, Shanghai 200212, China
Telephone Number: 86-21-51389368
Fax Number: 86-21-51389367
Emergency Number: 86-21-51389369

Section 2 – Product Information

Catalog Number: PI-31351
CAS #: 120-80-9
Purity: 98.0%
EINECS# 204-427-5

Section 3 – Physical and Chemical Properties

Appearance: White to brown crystalline powder
Odor: Phenol-like
Molecular Formula: $C_6H_6O_2$
Molecular Weight: 110.11
Freezing/Melting Point: 104-106°C
Boiling Point: 245°C
Flash Point: 131°C
Refractive Index (nD20): Not available
Density: 1.1493g/cm^3
Decomposition Temperature: Not available
Solubility: 430g/L in water (20°C)

Section 4 – Hazards Identification

Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.
Skin: Harmful if absorbed through the skin. Causes skin burns. Prolonged and/or repeated contact

may cause irritation and/or dermatitis. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. If absorbed, causes symptoms similar to those of ingestion. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: Harmful if swallowed. May cause severe and permanent damage to the digestive tract. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause perforation of the digestive tract. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death. May cause central nervous system depression. May cause systemic effects.

Inhalation: May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. May cause effects similar to those described for ingestion. Aspiration may lead to pulmonary edema. May cause systemic effects.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death. Effects may be delayed.

Section 5 – First Aid Measures

Eye: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.

Ingestion: Get medical aid immediately. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Section 6 – Stability and Reactivity

Chemical Stability: Stable. Substance undergoes color change upon exposure to light and air

Materials to avoid: Strong oxidizing agents, strong reducing agents, strong acids, strong bases.

Conditions to Avoid: Incompatible materials, dust generation, excess heat, strong oxidants.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 7 – Handling and Storage

Handling: Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required.

Storage: Keep container closed when not in use. Keep from contact with oxidizing materials. Corrosives area. Store in a cool, dry area away from incompatible substances.

Section 8 – Personal Protection

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 – Fire and Explosion Hazard Data

General Information: As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 10 – Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 11 – Toxicological Information

RTECS#: CAS# 120-80-9: UX1050000

LD50/LC50: RTECS: CAS# 120-80-9: Oral, mouse: LD50 = 260 mg/kg;
Oral, mouse: LD50 = 100 mg/kg;
Oral, rat: LD50 = 260 mg/kg;
Oral, rat: LD50 = 3890 mg/kg;
Skin, rabbit: LD50 = 800 mg/kg;
Skin, rabbit: LD50 = 800 mg/kg

Carcinogenicity: 1,2-Dihydroxybenzene- Confirmed animal carcinogen with unknown relevance to humans California: carcinogen, initial date 7/15/03 IARC: Group 2B carcinogen.

Section 12 – Environmental information

Not available

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the

Section 13 – Disposal Consideration

local authority or advice. Empty containers must be decontaminated before returning for recycling. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 14 – Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	TOXIC SOLID, ORGANIC, N.O.S.*	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.
Hazard Class:	6.1	6.1	6.1
UN Number:	2811	2811	2811
Packing Group:	III	III	III

Section 15 – Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 22 Do not breathe dust.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37 Wear suitable gloves.

WGK (Water Danger/Protection)

CAS# 120-80-9: 2

Canada

CAS# 120-80-9 is listed on Canada's DSL List

US Federal

TSCA

CAS# 120-80-9 is listed on the TSCA Inventory.

Section 16 – Additional Information

MSDS Creation Date: 2/22/2007

Update: Original

The above information is believed to be accurate and represents the best knowledge available to us currently. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall PI Chemicals, be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, even if PI Chemicals has been advised of the possibility of such damages.