

## SAFETY DATA SHEET

### Section 1 - Identification of Substance or Mixture and Company

*Product identify:*

*Product name:* Diethylstilbesterol  
*Synonyms:* (E)-3,4-Bis(4-hydroxyphenyl)-3-hexene, DES, Stilbestrol  
*Catalog number:* PI-21722

*Relevant identified uses of the substance or mixture and uses advised against*

*Identified uses:* Laboratory chemicals, Manufacture of substances

*Details of the supplier of the safety data sheet*

*Company identification:* PI Chemicals Ltd.  
633 Eshan Road,  
Pudong New Area, Shanghai China, 201203

*Telephone number:* +86-21-58953700

*Fax number:* +86-21-58953701

*E-mail address:* [info@pipharm.com](mailto:info@pipharm.com)

*Emergency telephone number*

*Emergency number:* +86-21-58953706

### Section 2 - Hazards Identification

*Classification of the substance or mixture:*

*Regulation (EC) No 1272/2008*

Acute toxicity, Oral (Category 5)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Carcinogenicity (Category 1B)

Reproductive toxicity (Category 1B)

Specific target organ toxicity - single exposure (Category 3)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1) Label elements

*Classification according to (EC) No 1272/2008*



*Signal word:* Danger

*Hazard statement(s):*

H315: Causes skin irritation  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation  
H350: May cause cancer  
H360: May damage fertility or the unborn child  
H410 Very toxic to aquatic life with long lasting effects

*Precautionary statement(s)*

P201: Obtain special instructions before use.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273: Avoid release to the environment.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313: IF exposed or concerned: Get medical advice/attention.  
P501: Dispose of contents/container to.....

*Accroding to EU Directive 67/548/EEC or 1999/45/EC.*

*Symbol(s):* Xn Harmful

*Risk phrases:*

R 45: May cause cancer  
R 61: May cause harm to the unborn child  
R 36/37/38: Irritating to eyes, respiratory system and skin  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

*Safety phrases:*

S53: Avoid exposure - obtain special instruction before use  
S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)  
S60: This material and/or its container must be disposed of as hazardous waste  
S61: Avoid release to the environment. Refer to special instructions safety data sheet

*HMIS classification:*

Health hazard: 2  
Chronic health hazard: \*  
Flammability: 0  
Physical hazards 0

*NFPA rating:*

Health hazard: 2  
Fire: 0  
Reactivity hazard: 0

### ***Section 3: Composition & Information on Ingredients***

*Molecular formula:* C<sub>18</sub>H<sub>20</sub>O<sub>2</sub>  
*Molecular weight:* 268.35

<i>Component</i>	<i>Concentration</i>
<i>CAS Number:</i> 56-53-1	98%
<i>EC Number:</i> 200-278-5	

#### ***Section 4 - First Aid Measures***

*Eye:* Flush eyes with plenty of water for at least 15 minutes. Get medical aid if symptoms appear.  
*Skin:* Wash skin with plenty of water at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.  
*Ingestion:* Wash mouth out with water. Get medical aid immediately.  
*Inhalation:* Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical aid.

#### ***Section 5 – Fire-Fighting Measures***

*Extinguishing media:* Use water spray, dry chemical, carbon dioxide, or appropriate foam.  
*Special hazards arising from the substance or mixture:* Carbon oxides  
*Advice for firefighters:* Wear a self-contained breathing apparatus for fire fighting if necessary

#### ***Section 6 - Accidental Release Measures***

*Personal precautions, protective equipment and emergency procedures:*

Use proper personal protective equipment as indicated in Section 8.

*Environmental precautions:* Prevent further spillage or leakage when safe and capable

*Methods and materials for containment and cleaning up:*

Vacuum or sweep up material and keep in a suitable closed container for disposal. Do not flush with water.

#### ***Section 7 - Handling and Storage***

*Precautions for safe handling:*

Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with skin, eyes and clothes. Avoid inhalation of vapors and spray mist.

*Conditions for safe storage, including any incompatibilities:*

Store in a cool, dry place. Keep tightly closed.

#### ***Section 8 - Exposure Controls/Personal Protection***

*Control parameters:*

Contains no materials with occupational exposure limits.

*Exposure controls:*

Ensure well ventilation, good industrial hygiene and safety practice.

*Personal protective equipment**Eye/Face protection:*

Wear appropriate protective eyeglasses under the standards such as EN166(EU) or type ABEK(EN14387).

*Skin/Body protection:*

Wear appropriate protective gloves which have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it to prevent skin exposure. Dispose of contaminated gloves in accordance with applicable laws. Wash and dry hands.

Wear appropriate protective clothing to prevent skin exposure.

*Respiratory protection:*

Use an approved respirator and components under appropriate government standards such as NIOSH(US) or CEN(EU) if exposure limits are exceeded or if irritation or other symptoms are experienced.

***Section 9- Physical and Chemical Properties***

<i>Physical state:</i>	Crystalline powder
<i>Color:</i>	White
<i>Odour:</i>	Odorless
<i>Melting point/freezing point:</i>	169°C-172°C
<i>Initial boiling point and boiling range:</i>	No data available
<i>Flash point:</i>	No data available
<i>Evaporation rate:</i>	No data available
<i>Flammability(solid, gas):</i>	No data available
<i>Upper/lower flammability or explosive limits:</i>	No data available
<i>Vapour pressure:</i>	No data available
<i>Vapour density:</i>	No data available
<i>Relative density:</i>	No data available
<i>Solubility:</i>	No data available
<i>Partition coefficient: n-octanol/water:</i>	No data available
<i>Auto-ignition temperature:</i>	No data available
<i>Decomposition temperature:</i>	No data available
<i>Viscosity:</i>	No data available

***Section 10-Stability and Reactivity***

<i>Reactivity:</i>	No data available
<i>Chemical stability:</i>	Stable under recommended temperatures and pressures.
<i>Possibility of hazardous reactions:</i>	No data available
<i>Conditions to avoid:</i>	No data available

<i>Incompatible materials:</i>	Strong oxidizing agents, Strong bases, Acid chlorides, Acid anhydrides
<i>Hazard Decomposition products:</i>	Carbon monoxide(CO), Carbon dioxide(CO <sub>2</sub> )

### **Section 11 - Toxicological Information**

#### *Acute toxicity:*

Component: Diethylstilbesterol

LD50 Oral-rat-> 3,000 mg/kg

*Skin corrosion/irritation:* No data available

*Serious eye damage/eye irritation:* No data available

*Respiratory or skin sensitization:* May cause allergic reactions.

*Germ cell mutagenicity:* No data available

#### *Carcinogenicity:*

Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

*Reproductive toxicity:* No data available

*Specific target organ toxicity(STOT)-single exposure:* No data available

*Specific target organ toxicity (STOT)-repeated exposure:* No data available

*Aspiration hazard:* No data available

*Additional information:* RTECS#: WJ5600000

### **Section 12 – Ecological Information**

*Toxicity:* No data available

Component: Diethylstilbesterol

*Toxicity to daphnia and other aquatic invertebrates* EC50-Daphnia magna (Water flea)-0.9 -1.5 mg/l-48 h

*Persistence and degradability:* No data available

*Bioaccumulative potential:* Indication of bioaccumulation.

Component: Diethylstilbesterol Log Pow: 5.07

*Mobility in soil:* No data available

*Results of PBT and vPvB assessment:* No data available

*Other adverse effects:* An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

### **Section 13 - Disposal Consideration**

#### *Waste treatment methods*

*Product:* Dispose of in accordance with federal, state and local environmental regulations

*Contaminated packaging:* Dispose of as unused product

### **Section 14 - Transport Information**

**IATA**

*UN number:* 3077  
*Hazard class:* 9  
*Packing group:* III  
*Proper shipping name:* Environmentally hazardous substance, solid, n.o.s.(Diethylstilbestrol)

**IMDG**

*UN number:* 3077  
*Hazard class:* 9  
*Packing group:* III  
*Proper shipping name:* Environmentally hazardous substance, solid, n.o.s.(Diethylstilbestrol)

**RID/ADR**

*UN number:* 3077  
*Hazard class:* 9  
*Packing group:* III  
*Proper shipping name:* Environmentally hazardous substance, solid, n.o.s.(Diethylstilbestrol)

**DOT(US)**

*Not dangerous goods.*

**Section 15 - Regulatory Information**

*Safety, health and environmental regulations/legislation specific for the substance or mixture*

No data available

*Chemical safety assessment:* No data available

**Section 16 – Other Information**

*SDS creation date:* May 24, 2013

*Update:* May 24, 2013

**Disclaimer:**

*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.*