1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 60102A0340
Product name TBC-P

Recommended use of the chemical and restrictions on use
Recommended Use Stabilizer, antioxidant.

Details of the supplier of the safety data sheet
Supplier / Importer DIC International (USA), LLC
35 Waterview Boulevard, Parsippany, NJ 07054, U.S.A.

Manufacturer DIC Corporation Chiba Plant 12, Yawata-kaigandori, Ichihara, Chiba 290-8585, Japan
TEL:+81-436-41-4112

2. HAZARDS IDENTIFICATION

Classification

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1 Sub-category C</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Signal word Danger

Hazard statements Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.
Precautionary Statements - Prevention
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Other Information
Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
• Very toxic to aquatic life with long lasting effects
• Very toxic to aquatic life
• May be harmful in contact with skin

Unknown Acute Toxicity
0.75% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Pure substance/mixture substance</th>
<th>Chemical Name</th>
<th>CAS No</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-tert-Butyl-1,2-benzenediol</td>
<td>98-29-3</td>
<td>&gt;99</td>
</tr>
<tr>
<td></td>
<td>1,2-Benzenediol</td>
<td>120-80-9</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

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First aid measures

Eye contact  Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact  Wash skin with soap and water.

INHALATION  Remove to fresh air.

INGESTION  Call a physician immediately. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms  None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians  Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media  Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media  Caution: Use of water spray when fighting fire may be inefficient.

Explosion data  Sensitivity to Mechanical Impact  none.

   Sensitivity to Static Discharge  none.

Protective equipment and precautions for firefighters  As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions  Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions  See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment  Prevent further leakage or spillage if safe to do so.

Methods for cleaning up  Use personal protective equipment as required. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Avoid creating dust.

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7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling  Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions  Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials  No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Benzenediol</td>
<td>TWA: 5 ppm</td>
<td>(vacated) TWA: 5 ppm</td>
<td>TWA: 5 ppm</td>
</tr>
<tr>
<td>120-80-9</td>
<td>S*</td>
<td>(vacated) TWA: 20 mg/m³</td>
<td>TWA: 20 mg/m³</td>
</tr>
</tbody>
</table>

NIOSH IDLH  Immediately Dangerous to Life or Health

Other Information  Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls  Showers
  Eyewash stations
  Ventilation systems.

Individual protection measures, such as personal protective equipment

Hand Protection  Gloves made of plastic or rubber.

Eye/face protection  Wear safety glasses with side shields (or goggles).

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

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10. STABILITY AND REACTIVITY

Reactivity
No reactivity under the normal usage

Chemical stability
Combustibility.

Possibility of Hazardous Reactions
No data available.

Conditions to avoid
May form explosive dust-air mixtures.

Incompatible materials
No data available.

Hazardous Decomposition Products
No data available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>INHALATION</td>
<td>No data available.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No data available.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>No data available.</td>
</tr>
<tr>
<td>INGESTION</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

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Information on toxicological effects

LD/LC50 values that relevant for classification.

### Acute toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-tert-Butyl-1,2-benzenediol</td>
<td>2820 mg/kg (Rat)</td>
<td>630 μL/k (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>1,2-Benzenediol</td>
<td>260 mg/kg (Rat)</td>
<td>800 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

### Symptoms

No data available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation**

4-t-butyl catechol: Necrosis was observed (brown discoloration, dark brown or black). (Rabbit, 60min).

**Serious eye damage/eye irritation**

No data available.

**Sensitization**

No data available.

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Benzenediol 120-80-9</td>
<td>A3</td>
<td>Group 2B</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

**Reproductive toxicity**

No data available.

**STOT - single exposure**

No data available.

**STOT - repeated exposure**

No data available.

**Aspiration hazard**

No data available.

### Numerical measures of toxicity - Product Information

**Unknown Acute Toxicity**

0.75% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-tert-Butyl-1,2-benzenediol 98-29-3</td>
<td>3.9 : 24h Oryzias laptis mg/L LC50, 2.7 : 48h Oryzias laptis mg/L LC50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Benzenediol 120-80-9</td>
<td>50 - 135: 6 h Chlorella vulgaris mg/L EC50</td>
<td>3.5: 96 h Pimephales promelas mg/L LC50 flow-through 8.9: 96 h Oncorhynchus mykiss mg/L LC50 flow-through</td>
<td>1.66: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**

COD 1,100,000ppm.

**Bioaccumulation**

No data available.
13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.

US EPA Waste Number
D002

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Benzenediol</td>
<td></td>
<td>Included in waste stream: K060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120-80-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN/ID no UN3261
Proper shipping name Corrosive solid, acidic, organic, n.o.s.
Hazard Class 8
Packing Group II
Special Provisions IB8, IP2, IP4, T3, TP33
Marine pollutant Not Applicable.
Emergency Response Guide Number 154
Description UN3261, Corrosive solid, acidic, organic, n.o.s., 8, II

TDG

UN/ID no UN3261
Proper shipping name Corrosive solid, acidic, organic, n.o.s.
Hazard Class 8
Packing Group II
Special Provisions none
Marine pollutant Not regulated.
Description UN3261, Corrosive solid, acidic, organic, n.o.s., 8, II

MEX

UN/ID no UN3261
Proper shipping name Corrosive solid, acidic, organic, n.o.s.
Hazard Class 8
Special Provisions none
Packing Group II
Description UN3261, Corrosive solid, acidic, organic, n.o.s., 8, II

IATA

UN/ID no UN3261
Proper shipping name Corrosive solid, acidic, organic, n.o.s.
15. REGULATORY INFORMATION

International Inventories

TSCA
Complies

DSL
Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>weight-%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Benzenediol - 120-80-9</td>
<td>120-80-9</td>
<td>0.2</td>
<td>0.1</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

Acute health hazard: Yes
Chronic Health Hazard: No
Fire hazard: No
Sudden release of pressure hazard: No
Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Benzenediol 120-80-9</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

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Chemical Name | California Proposition 65
---|---
1,2-Benzenediol - 120-80-9 | Carcinogen

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-tert-Butyl-1,2-benzenediol 98-29-3</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1,2-Benzenediol 120-80-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR

WHMIS Hazard Class

D2A - Very toxic materials

16. OTHER INFORMATION

**NFPA**

- Health hazards 4
- Flammability 1
- Instability 0

**HMIS**

- Health hazards 4
- Flammability 1
- Physical hazards 0
- Personal protection C

Authoring Date 29-Jan-2015

Reference

LOLI Database (ChemADVISOR, Inc.)

The reference on GHS classification results

Japan National Institute of Technology and Evaluation (NITE)
EU CLP(1272/2008)Annex VI Table 3.1

Other information

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