SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier
Product Name
PLASTHALL® DOP

Other means of identification
Product Code
1607
UN/ID No.
UN 3082

Recommended use of the chemical and restrictions on use
Recommended Use
No information available.

Details of the supplier of the safety data sheet
Manufacturer Address
The HallStar Company
120 S. Riverside Plaza, Suite 1620
Chicago, IL 60606
Telephone: (877) 427-4255

Emergency telephone number
Company Phone Number
(708) 594-5999
Emergency Telephone
Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity
Category 1B
Reproductive toxicity
Category 1B

Label elements

Emergency Overview

Danger

Hazard statements
May cause cancer
May damage fertility or the unborn child

Appearance colorless liquid
Physical state liquid
Odor mild odor

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

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance</th>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di (2-ethylhexyl) Phthalate</td>
<td>117-81-7</td>
<td>100</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of 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
Clean mouth with water and drink afterwards plenty of water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or regular foam.

Specific hazards arising from the chemical
None in particular.

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
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local /
national regulations (see Section 13).

Methods for cleaning up
Pick up and transfer to properly labeled containers.

### 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 container tightly closed in a dry and well-ventilated place. Incompatible with oxidizing agents.

Incompatible materials
Strong oxidizing agents.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

**Exposure Guidelines**
This mixture contains one component that has exposure limits. Care should be taken to ensure employee exposure is below limits and/or to protect the worker.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di (2-ethylhexyl) Phthalate</td>
<td>TWA: 5 mg/m³</td>
<td>(vacated) TWA: 5 mg/m³</td>
<td>IDLH: 5000 mg/m³</td>
</tr>
<tr>
<td>117-81-7</td>
<td></td>
<td>Di-sec-octyl phthalate</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) STEL: 10 mg/m³</td>
<td>STEL: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Di-sec-octyl phthalate</td>
<td>Di-sec octyl phthalate which is not correct for 117-81-7</td>
</tr>
</tbody>
</table>

**Engineering Controls**
Showers
Eyewash stations
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

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

**Skin and body protection**
Wear protective Neoprene™ gloves. Wear protective gloves and protective clothing.

**Respiratory protection**
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice.

### 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>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>colorless liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>mild odor</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>230 °C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>200 °C</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
**Upper flammability limit:** No information available
**Lower flammability limit:** No information available
**Vapor pressure:** 0.00001 mbar
**Vapor density:** No information available
**Relative density:** 0.985
**Water solubility:** No information available
**Solubility in other solvents:** 0.003 mg/L
**Partition coefficient:** No information available

**Other Information**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC Content (%)</td>
<td>No information available</td>
</tr>
<tr>
<td>Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
</tr>
<tr>
<td>Volatility</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**10. STABILITY AND REACTIVITY**

**Reactivity**
Reacts with strong oxidizers. No data available

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Hazardous polymerization**
None under normal processing.

**Conditions to avoid**
Extremes of temperature and direct sunlight. Strong oxidizing agents.

**Incompatible materials**
Strong oxidizing agents.

**Hazardous Decomposition Products**
None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**
No data available

**Inhalation**
No data available.

**Eye contact**
No data available.

**Skin contact**
No data available.

**Ingestion**
No data available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di (2-ethylhexyl) Phthalate</td>
<td>= 6860 mg/kg (Rat)</td>
<td>= 25 g/kg (Rabbit)</td>
<td>&gt; 23.67 mg/L (Rat) 1 h</td>
</tr>
<tr>
<td>117-81-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Skin corrosion/irritation**
Slightly irritating.

**Serious eye damage/eye irritation**
Slight.

**Sensitization**
No information available.

**Germ cell mutagenicity**
No information available.

**Carcinogenicity**
General: Di(2-ethylhexyl) phthalate [bis(2-ethylhexyl) phthalate; DEHP] is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity in
experimental animals (NTP 217, 1982; IARC V.29,1982; IARC S.7, 1987). When administered in the diet, di(2-ethylhexyl) phthalate increased the incidence of hepatocellular carcinomas in female rats, liver neoplastic nodules or hepatocellular carcinomas in male rats, and hepatocellular carcinomas in mice of both sexes. There are no adequate data available to evaluate the carcinogenicity of di(2-ethylhexyl) phthalate in humans (IARC V.29, 1982; IARC S.7, 1987).

Reproductive toxicity

No information available.

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

<table>
<thead>
<tr>
<th></th>
<th>ATEmix (oral)</th>
<th>ATEmix (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6,860.00</td>
<td>25,000.00</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di (2-ethylhexyl) Phthalate 117-81-7</td>
<td>130: 72 h Desmodesmus subspicatus mg/L EC50 0.1: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.1: 96 h Pseudokirchneriella subcapitata mg/L EC50 static</td>
<td>0.16: 96 h Pimephales promelas mg/L LC50 static 0.200: 96 h Lepomis macrochirus mg/L LC50 static 0.200: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.27 - 0.67: 96 h Pimephales promelas mg/L LC50 flow-through 0.32: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.32: 96 h Oryzias latipes mg/L LC50 semi-static 0.32: 96 h Brachydanio rerio mg/L LC50 semi-static 0.32: 96 h Poecilia reticulata mg/L LC50 semi-static 0.67: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 100: 96 h</td>
<td>0.16: 48 h Daphnia magna mg/L EC50 9.4: 48 h Daphnia magna mg/L LC50</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
readily biodegradable; 96LC50 (fathead minnow) > 0.67 mg/l NOEC 0.67 mg/l; 96hr LC50 (rainbow trout) > 0.32 mg/l NOEC 0.32 mg/l (limit of solubility in fresh water).

**Bioaccumulation**
No information available.

**Other adverse effects**
No information 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.

<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>Di (2-ethylhexyl) Phthalate 117-81-7</td>
<td>-</td>
<td>Included in waste stream: F039</td>
<td>-</td>
<td>U028</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Legend:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA - United States Toxic Substances Control Act Section 8(b) Inventory</td>
</tr>
<tr>
<td>DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List</td>
</tr>
<tr>
<td>EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>ENCS - Japan Existing and New Chemical Substances</td>
</tr>
<tr>
<td>IECSC - China Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>KECL - Korean Existing and Evaluated Chemical Substances</td>
</tr>
<tr>
<td>PICCS - Philippines Inventory of Chemicals and Chemical Substances</td>
</tr>
<tr>
<td>AICS - Australian Inventory of Chemical Substances</td>
</tr>
</tbody>
</table>

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>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di (2-ethylhexyl) Phthalate - 117-81-7</td>
<td>0.1</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

CWA (Clean Water Act)

CERCLA

US State Regulations
California Proposition 65
This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<table>
<thead>
<tr>
<th>Issue Date</th>
<th>27-May-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date</td>
<td>26-May-2015</td>
</tr>
<tr>
<td>Revision Note</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet