1. PRODUCT NAME

a/ trade name
– in Polish Oxoplast Medica®,
– in English Oxoplast Medica®,
– in German Oxoplast Medica®

b/ chemical name
– in Polish Ftalan bis(2-etyloheksylu); Ftalan di(2-etyloheksylu)
– in English Bis(2-ethylhexyl) phthalate; Di(2-ethylhexyl) phthalate; DEHP
– in German Bis(2-ethylhexyl) phthalat

c/ proper shipping name
not applicable (not regulated by RID/ADR)

d/ chemical formula
– molecular formula $C_{24}H_{38}O_4$
– semi-structural formula $C_6H_4(COOC_8H_{17})_2$
– structural formula

\[
\begin{align*}
\text{H}_3\text{C} & \quad \text{O} \\
\text{H}_3\text{C} & \quad \text{O} \\
\text{O} & \quad \text{C} \quad \text{H}_3 \quad \text{C} \\
\text{CH}_3 & \quad \text{O} \\
\end{align*}
\]

e/ PKWiU: 20.14.34.0
f/ CN: 2917 32 00

2. QUALITY REQUIREMENTS

2.1. General requirements
Oxoplast Medica® is an oily liquid, colourless or straw-yellow, with no mechanical impurities.

2.2. Physical-chemical properties

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
<th>Value</th>
<th>Unit</th>
<th>Test method</th>
<th>Foreign equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Colour, Pt-Co scale, max.</td>
<td>30</td>
<td>°Hz</td>
<td>PN-C-04534-01:1981</td>
<td>DIN ISO 6271</td>
</tr>
<tr>
<td>2</td>
<td>Flash point, min.</td>
<td>206</td>
<td>°C</td>
<td>PN-EN ISO 2592:2008</td>
<td>ISO 2592</td>
</tr>
<tr>
<td>3</td>
<td>Volatile matter content (150°C/2 h), max.</td>
<td>0.4</td>
<td>wt %</td>
<td>ZAK’s internal method</td>
<td>No equivalent</td>
</tr>
<tr>
<td>4</td>
<td>Esters as di(2-ethylhexyl) phthalate, min.</td>
<td>99.5</td>
<td>wt %</td>
<td>PN-C-88035:1977</td>
<td>ISO 1385/V</td>
</tr>
<tr>
<td>5</td>
<td>Di(2-ethylhexyl) phthalate content, min.</td>
<td>99.5</td>
<td>wt %</td>
<td>ZAK’s internal method (GC)</td>
<td>GC</td>
</tr>
<tr>
<td>6</td>
<td>Density at 20°C, min. max.</td>
<td>0.983 0.986</td>
<td>g/cm³</td>
<td>PN-C-04504:1992</td>
<td>Areometric method</td>
</tr>
<tr>
<td>7</td>
<td>Free acids as phthalic acid, max.</td>
<td>0.010</td>
<td>wt %</td>
<td>PN-C-89401:1988</td>
<td>ISO 1385/IV</td>
</tr>
<tr>
<td>8</td>
<td>Water content, max.</td>
<td>0.10</td>
<td>wt %</td>
<td>PN-ISO 760:2001</td>
<td>ISO 760</td>
</tr>
</tbody>
</table>
3. APPLICATION(s)

Oxoplast Medica® is used as a plasticiser in the processing of plastics, and in the production of paints and lacquers. Pursuant to the REACH Regulation, the product may be used in accordance with the exposure scenarios for identified applications, (scenarios) attached to the Material Safety Data Sheet.

4. STORAGE STABILITY

Oxoplast Medica® is chemically stable. When the storage and transport conditions as per sections 7 and 8 are observed, the product will maintain its quality parameters as per section 2 over the period of 6 months from the date of its loading.

5. QUALITY DOCUMENT

Unless the client’s order (or contract) demands otherwise, each shipment of the product shall be provided with the quality certificate to evidence that the product quality parameters satisfy the requirements listed in the contract and/or in this Specification.

6. PACKING

6.1. General requirements

Oxoplast Medica® is available in bulk shipments, in steel rail tank cars, in tank-containers or in road tankers. Other types of containers are also allowable, if they protect the product sufficiently to maintain its quality, and if they provide safety in transport, storage, handling and use. In that case, the client should:

- Submit the valid certificate which permits the use of that type of containers in storage and transport, or his own statement in writing on the subject.
- Place marking on the containers, in accordance with applicable regulations.

6.2. Marking applicable for client’s unit containers

a/ according to Regulation (EC) № 1272/2008:

Identification data: name, address and phone number of the supplier (or suppliers)

Information on product amount: nominal amount of the product in the packages which are made available to the public, unless that amount has been specified elsewhere on the package

Product identifier:

Substance name: “Bis(2-ethylhexyl) phthalate”

EC number: “EC number 204-211-0”

CAS number: “CAS number 117-81-7”

Hazard Pictogram:

GHS08: health hazard

Signal Word: “Danger”

Hazard statements:

H360FD: “May damage fertility. May damage the unborn child.”

Precautionary statements:

P201: “Obtain special instructions before use.”

P281: “Use personal protective equipment as required.”

P308+P313: “IF exposed or concerned: Get medical advice/attention.”
b/ according to RID/ADR:
- Not applicable - Oxoplast Medica® (bis(2-ethylhexyl) phthalate) is not classified as dangerous by RID/ADR.

c/ according to Prepackaged Goods Law (if a package is liable to that Law):
- product name
- nominal amount of product
- name of packaging company, commissioning company or importing company.

d/ inscription
- “Spent packages must be transferred to an authorised waste collecting company.”

7. STORAGE

7.1. Requirements for warehouses
- Local exhaust ventilation systems, to eliminate vapours from the places of their emission, and general ventilation systems in rooms.
- Protection against accumulation of static electricity - ignition of organic vapours may be initiated by any static discharge.
- Sprinkler systems, to cool down tanks/containers with water spray in case of fire.
- Liquid-impervious floors which make it possible to collect the spilled material and prevent its entry to the sewage system.
- The storage rooms should be cool and dry.

7.2. Storage conditions
- Keep away from ignition sources - No smoking.
- Keep container tightly closed, in cool and well ventilated places.
- Handle and open containers with care.
- Containers and tanks must be properly marked.
- Containers and tanks must be made of the materials which are resistant to the product attack.
- Hand-operated/portable fire-fighting equipment should be available in storage rooms.

7.3. Recommendations for occupational hygiene
- Avoid any direct contact with skin, eyes and clothing.
- Avoid inhalation of vapour or mist.
- Do not eat, do not drink and do not smoke when handling the product.
- Wash hands after handling the product.
- Remove contaminated clothing and protective equipment before entering eating areas.

7.4. Recommendations for joint storage
- Incompatible substances: strong oxidisers

8. TRANSPORT

8.1. General requirements
Oxoplast Medica® is transported in rail tankers, in road tankers and/or in tank-containers.
The rail tankers, road tankers and tank-containers must be leak-proof and clean (they need to have washing/cleaning certificates) and their approval documents need to be valid.
The client’s unit containers must meet the requirements as per Section 6.
Unit containers should be transported by covered means of transport.
Oxoplast Medica® may not be transported together with strong oxidisers and alkalies.
The product is not a dangerous goods in accordance with RID/ADR.

8.2. Marking applicable for means of transport as per RID/ADR
Not applicable - Oxoplast Medica® (bis(2-ethylhexyl) phthalate) is not classified as dangerous by RID/ADR.

9. OTHER INFORMATION
Not applicable
10. REFERENCE DOCUMENTS

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Sheet</td>
<td>PM-020.02 “Oxoplast Medica®. Material Safety Data Sheet.”</td>
</tr>
<tr>
<td>PN-ISO 760</td>
<td>Determination of water -- Karl Fischer method (General method)</td>
</tr>
<tr>
<td>PN-C-88035:1977</td>
<td>Dioctyl phthalate for industrial use.</td>
</tr>
<tr>
<td>European Pharmacopeia monographs 3.1.1.1, 3.1.1.2, 3.1.13, 3.1.14, 3.2.4, 3.2.5</td>
<td>(8th edition 2013)</td>
</tr>
</tbody>
</table>

11. IN PLACE OF

PM-020.01 “Oxoplast Medica®. Specification.” (Issue 1)