

1. PRODUCT NAME
a/ trade name

- in Polish Oxoviflex®
- in English Oxoviflex®
- in German Oxoviflex®

b/ chemical name

- in Polish tereftalan bis(2-etyloheksylu)
- in English bis(2-ethylhexyl) terephthalate
- in German bis(2-ethylhexyl) terephthalat

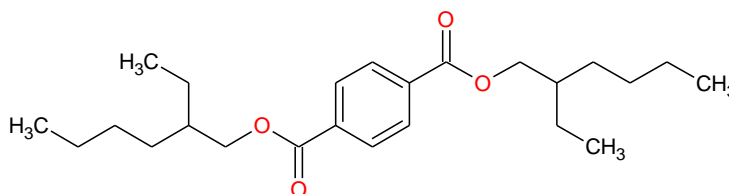
c/ proper shipping name

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


e/ PKWiU:

20.14.34.0

f/ CN:

2917 39 95

2. QUALITY REQUIREMENTS
2.1. General requirements

Oxoviflex® is an oily liquid, colourless, with no mechanical impurities.

2.2. Physical-chemical properties

Item	Specification	Value	Unit	Test method	Foreign equivalent	
1	Colour	max.	20	[Pt-Co]	PN-C-04534-01:1981 PN-EN ISO 6271:2016-01	ISO 2211 ISO 6271
2	Flash point	min.	230	[° C]	PN-EN ISO 2592:2017-10	ISO 2592
3	Volatile organic compounds (VOC)	max.	0.15	[wt %]	PN-EN ISO 11890-2:2013-06	ISO 11890-2:2013-06
4	Bis(2-ethylhexyl) terephthalate	min.	99.5	[wt %]	Internal method of Grupa Azoty ZAK S.A. (GC, % by area)	GC (% by area)
5	Density at 20°C	min. max.	0.980 0.985	[g/cm ³]	PN-EN ISO 12185:2002	ISO 12185
6	Free acids as phthalic acid	max.	0.01	[wt %]	PN-C-89401:1988 ASTM D1045 - 14	ASTM D1045 - 14
7	Water content	max.	0.05	[wt %]	PN-ISO 760:2001 PN-EN ISO 12937: 2005	ISO 760 EN ISO 12937
8	2-Ethylhexanol content	max.	0,05	[wt %]	Internal method of Grupa Azoty ZAK S.A. (GC, % by area)	GC (% by area)

3. APPLICATION(s)

Oxoviflex® is used as a plasticiser in the processing of plastics, and in the paint and varnish industry.

4. STORAGE STABILITY

Oxoviflex® 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) above over the period of 6 months from the date of 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 this Specification.

6. PACKING

6.1. General requirements

Oxoviflex® is available in bulk shipments, in steel rail tank cars, in tank-containers, in road tankers or flexitanks.

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. Labelling applicable for client's unit containers

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

- Not applicable - Oxoviflex® (bis(2-ethylhexyl) terephthalate) is not classified as dangerous by CLP/GHS regulations.

b/ According to RID/ADR:

- Not applicable - Oxoviflex® (bis(2-ethylhexyl) terephthalate) is not classified as dangerous by RID/ADR.

c/ Inscription

- "Spent packages must be transferred to an authorised waste collecting company."

d/ Additional labelling required by national/local legislation

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.
- Wash hands after handling the product.

7.4. Recommendations for joint storage

- Incompatible substances: strong oxidisers

8. TRANSPORT

8.1. General requirements

Oxoviflex® should be transported in rail tankers, in road tankers, in tank-containers, in flexitanks and/or in client's unit containers which meet the requirements as per Section 6.

The rail tankers, road tankers, tank-containers, flexitanks and unit containers must be leak-proof, technically serviceable and clean (they need to have valid washing/cleaning certificates).

Unit containers should be transported by covered means of transport.

Oxoviflex® may not be transported together with strong oxidisers and alkalis.

The product is not a dangerous goods in accordance with RID/ADR.

8.2. Labelling applicable for means of transport as per RID/ADR

Not applicable - Oxoviflex® (bis(2-ethylhexyl) terephthalate) is not classified as dangerous by RID/ADR.

9. OTHER INFORMATION

9.1. Typical physicochemical properties

No	Parameter	Value	Unit
1	Molar mass	390.564	g/mol
2	Refractive index	1.4900 - 1.4905	-
3	Solubility in water	0.4	µg/dm ³
4	Phthalates content: bis(2-ethylhexyl) phthalate di-n-octyl phthalate di-n-butyl phthalate benzyl n-butyl phthalate diisodecyl phthalate diisononyl phthalate diisobutyl phthalate di-n-hexyl phthalate	not detected, analytical method detection limit 0.0009 not detected, analytical method detection limit 0.0014 not detected, analytical method detection limit 0.0008 not detected, analytical method detection limit 0.0016 not detected, analytical method detection limit 0.0015 not detected, analytical method detection limit 0.0043 not detected, analytical method detection limit 0.0035 not detected, analytical method detection limit 0.0014	% m/m
5	Dynamic viscosity at 10° C at 20° C at 30° C at 40° C at 60° C at 80° C at 100° C	168.4 85.34 47.98 29.20 13.23 7.22 4.41	mPa*s
6	Saponification number	286.3	mg KOH/g
7	Melting point	<-67.2	°C

9.2. Certificates

Oxoviflex® is Kosher-certified.

10. REFERENCE DOCUMENTS

Product Sheet	PM-018-02 "Oxoviflex®. Material Safety Data Sheet."
PN-EN ISO 12185:2002	Crude petroleum and petroleum products -- Determination of density -- Oscillating U-tube method.
PN-EN ISO 2592:2017-10	Petroleum and related products -- Determination of flash and fire points -- Cleveland open cup method
PN-C-04534-01:1981	Chemical analysis - Determination of colour of chemical products by Hazen units (platinum-cobalt scale).
PN-EN ISO 6271:2016-01	Clear liquids -- Estimation of colour by the platinum-cobalt colour scale
PN-ISO 760:2001	Determination of water -- Karl Fischer method (General method)
PN-C-89401:1988	Plasticizers - Test methods.
PN-EN ISO 12937: 2005	Petroleum products -- Determination of water -- Coulometric Karl Fischer titration method
ASTM D1045 - 14	Standard Test Methods for Sampling and Testing Plasticizers Used in Plastics
PN-EN ISO 11890-2:2013-06	Paints and varnishes – Determination of volatile organic compound (VOC) content – Part 2: Gas-chromatographic method

11. IN PLACE OF

PM-018-01-6.0 "Oxoviflex®. Specification."