



Chemical
Analysis

Technical Report

Service Order

Page

Laboratory

Nº 0706/22

Nº 0330/22

Nº 1/5



Requirer: TACOSOLA BORRACHAS LTDA.

Address: Rodovia BR-116, 7729- Novo Hamburgo – RS.

Date of receipt of sample: 02/09/2022.

Sample characterization: 01 sample of material, identified by the customer as: “EVA 1636 ECOLÓGICO”.

Selection of samples: up to the requirer.

Sampling: up to the laboratory.



TEST	RESULTS				
	Results	MQL	Unit	Method	Evaluation
1 – Polyaromatic Hydrocarbons – PAHs	0.77	0.20	mg/kg	AFPS-GS-2019-01-PAK	Pass
2– Alkylphenols (NP/OP)	<10.0	10.0	mg/kg	ISO 18218-2:2019	Pass
3– Ethoxylates alkylphenols (NPEO/OPEO)	<10.0	10.0	mg/kg	ISO 18218-2:2019	Pass
4 – Residual Solvents	190	10.0	mg/kg	ISO/TS 16189:2013	Pass
5 – Total Lead	<3.5	3.5	mg/kg	CPSC-CH-E1002-08.3 (2012)	Pass
6 – Total Arsenic	<3.5	3.5	mg/kg	BS EN 16711-1:2015	Pass
7 – Total Mercury	<0.10	0.10	mg/kg	BS EN 16711-1:2015	Pass
8 – Total Cadmium	<3.5	3.5	mg/kg	BS EN 16711-1:2015	Pass
9 – Bisfenol A (BPA)	<1.0	1.0	mg/kg	Método AFIRM -Bisfenol A (BPA)	Pass
10 – Phtalates	<50.0	50.0	mg/kg	CPSC-CHC1001-09.4 (2018)	Pass

Note 1: Evaluation according to Veja Limits – Maximum Allowed Limits according VEJA Restricted Substances Policy – September/2021.

Note 2: mg/kg = ppm

Note 3: MQL = Method Quantification Limit.

*The results expressed in this current technical report are applied only to the sample tested as received.
This document reproduction could be done only integrally without any alteration.*

Instituto SENAI de Tecnologia em Couro e Meio Ambiente
Rua Gregório de Mattos, 111 – Centro – Estância Velha/RS
(51) 3904-2735 | laboratorios.couro@senairs.org.br | institutosennai.org.br



Chemical
Analysis
Laboratory

Technical Report
Nº 0706/22

Service Order
Nº 0330/22

Page
Nº 2/5



Phthalates	CAS Number	Results	VEJA Limits (Maximum allowable concentration)	Laboratory Limits (Method quantification limit)
Di-isononylphthalate (DINP)	28553-12-0	<50.0	Total: 1000 ppm 500 ppm (each)	50.0 ppm (each)
Di-n-octylphthalate (DNOP)	117-84-0	<50.0		
Di(2-ethylhexyl)-phthalate (DEHP)	117-81-7	<50.0		
Diisodecylphthalate (DIDP)	26761-40-0	<50.0		
Butylbenzylphthalate (BBP)	85-68-7	<50.0		
Dibutylphthalate (DBP)	84-74-2	<50.0		
Diisobutylphthalate (DIBP)	84-69-5	<50.0		
Di-n-hexylphthalate (DnHP)	84-75-3	<50.0		
Diethylphthalate (DEP)	84-66-2	<50.0		
Dimethylphthalate (DMP)	131-11-3	<50.0		
Di-n-pentyl phthalate (DPENP)	131-18-0	<50.0		
Dicyclohexyl phthalate (DCHP)	84-61-7	<50.0		
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	<50.0		
Bis(2-methoxyethyl) phthalate	117-82-8	<50.0		
Diisopentyl phthalate (DIPP)	605-50-5	<50.0		
Dipropyl phthalate (DPRP)	131-16-8	<50.0		
Diisooctyl phthalate (DIOP)	27554-26-3	<50.0		
Diisoexyl phthalate (DIHxP)	71850-09-4	<50.0		
Di-hexyl phthalate, branched and linear (DHxP)	68515-50-4	<50.0		
1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters (DHNUP)	68515-42-4	<50.0		
1,2-Benzenedicarboxylic acid	84777-06-0	<50.0		
1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate; 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters; 1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters	68648-93-1 68515-51-5	<50.0		
n-Pentyl-isopentylphthalate (nPIPP)	776297-69-9	<50.0		

The results expressed in this current technical report are applied only to the sample tested as received.
This document reproduction could be done only integrally without any alteration.



Chemical
Analysis
Laboratory

Technical Report
Nº 0706/22

Service Order
Nº 0330/22

Page
Nº 3/5



Alkylphenols (AP), Alkylphenol Ethoxylates (APEOs) including all isomers	CAS Number	Results	VEJA Limits (Maximum allowable concentration)	Laboratory Limits (Method quantification limit)
Nonylphenol (NP), mixed isomers	Several	<10.0	Total: 100 ppm	10 ppm (each)
Octylphenol (OP), mixed isomers	Several	<10.0		
Nonylphenol Ethoxylates (NPEOs)	Several	<10.0	Total: 100 ppm	
Octylphenol Ethoxylates (OPEOs)	Several	<10.0		

Bisphenols	CAS Number	Result	VEJA Limits (Maximum allowable concentration)	Laboratory Limits (Method quantification limit)
Bisphenol-A (BPA)	80-05-7	<1.0	1 ppm	1.0 ppm

Heavy Metals	CAS Number	Results	VEJA Limits (Maximum allowable concentration)	Laboratory Limits (Method quantification limit)
Arsenic (As)	7440-38-2	<3.5	Extracted: 0,1 ppm Total: 10 ppm	Extracted: 0.05 ppm Total: 3.5 ppm Leather: 2.0 ppm
Cadmium (Cd)	7440-43-9	<3.5	Extracted: 0.1 ppm Total: 40 ppm	Extracted: 0.05 ppm Total: 3.5 ppm Leather: 2.0 ppm
Lead (Pb)	7439-92-1	<3.5	Extracted: 0.2 ppm Total: 90 ppm	Extracted: 0.05 ppm Total: 3.5 ppm Leather: 2.0 ppm
Mercury (Hg)	7439-97-6	<0.10	Extracted: 0.02 ppm Total: 0.5 ppm	Extracted: 0.005 ppm Total: 0.10 ppm

The results expressed in this current technical report are applied only to the sample tested as received.
This document reproduction could be done only integrally without any alteration.



Chemical
Analysis
Laboratory

Technical Report
Nº 0706/22

Service Order
Nº 0330/22

Page
Nº 4/5



Solvents/Residuals	CAS Number	Results	VEJA Limits (Maximum allowable concentration)	Laboratory Limits (Method quantification limit)
Dimethylformamide (DMFa)	68-12-2	<10.0	500 ppm	10.0 ppm
Formamide	75-12-7	190	1000 ppm	
Dimethylacetamide (DMAC)	127-19-5	<10.0		
N-Methyl-2-pyrrolidone (NMP)	872-50-4	<10.0		

Polycyclic Aromatic Hydrocarbons (PAHs)	CAS Number	Results	VEJA Limits (Maximum allowable concentration)	Laboratory Limits (Method quantification limit)
Acenaphthene	83-32-9	<0.20	No individual restriction	Total: 10 ppm
Acenaphthylene	208-96-8	<0.20		
Anthracene	120-12-7	<0.20		
Benzo(g,h,i)perylene	191-24-2	<0.20		
Fluorene	86-73-7	<0.20		
Fluoranthene	206-44-0	<0.20		
Indeno(1,2,3-cd) pyrene	193-39-5	<0.20		
Naphthalene	91-20-3	0.32		
Phenanthrene	85-01-8	<0.20		
Pyrene	129-00-0	0.45		
Benzo(a)anthracene	56-55-3	<0.20	0.5 ppm (each)	0.20 ppm
Benzo(a)pyrene	50-32-8	<0.20		
Benzo(b)fluoranthene	205-99-2	<0.20		
Benzo[e]pyrene	192-97-2	<0.20		
Benzo[j]fluoranthene	205-82-3	<0.20		
Benzo(k)fluoranthene	207-08-9	<0.20		
Chrysene	218-01-9	<0.20		
Dibenzo(a,h)anthracene	53-70-3	<0.20		

The results expressed in this current technical report are applied only to the sample tested as received.
This document reproduction could be done only integrally without any alteration.



Chemical
Analysis
Laboratory

Technical Report
Nº 0706/22

Service Order
Nº 0330/22

Page
Nº 5/5



EXAMINATION PERFORMED: 02/09/2022 to 03/02/2022.

TRACKING EQUIPMENT USED FOR TEST:

- NI 102 Balance, with calibration certificate RBC 006060/2021 emitted by INSTITUTO SENAI DE INOVAÇÃO EM METALMECÂNICA-CETEMP and valid until 05/2023.

Estância Velha, March 03rd, 2022.

Technical Analyst
Lucas Zoldan
CRQ 05202050

Revision 02
BRC

*The results expressed in this current technical report are applied only to the sample tested as received.
This document reproduction could be done only integrally without any alteration.*