

# Test Report

**No.: 70.431.21.12659.01**

**Date: 2021-06-24**

**Applicant:** JARLSON GMBH  
**Address:** STROBL 176, 5350 STROBL, AUSTRIA  
**Product Name:** Vaccum Flask / Tritan Water Bottle  
**End Use:** Water Bottle  
**Style No.:** SFLA002 / TFLA002  
**P.O./Order No.:** MB21H15  
**Buyer:** JARLSON GmbH  
**Country of Origin:** China  
**Country of Destination:** Austria  
**Receipt Date of Sample:** 2021-05-08  
**Date of Testing:** 2021-05-13 to 2021-06-18  
**Date of Further Information:** 2021-06-17  
**Sample Submitted:** The sample(s) was (were) submitted by applicant and identified.  
**Test Result:** Refer to the data listed in following pages

Test Item	Conclusion
1. EN14350: 2020 Child care articles — Drinking equipment — Safety requirements and test methods.	Pass
2. Total Lead Content Requirement in Annex XVII, Item 63 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
3. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
4. Phthalates Content in Annex XVII Items 51 and 52 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
5. Polycyclic Aromatic Hydrocarbons (PAHs) Content in Annex XVII item 50 of the REACH Regulation (EC) No 1907/2006 with its Amendments	Pass
6. Content of 15 PAHs (Polycyclic Aromatic Hydrocarbons)	Pass
7. Short Chain Chlorinated Paraffins (SCCPs) Content – in Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA)	Pass
8. Short Chain Chlorinated Paraffins (SCCPs) Content – European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)	Pass
9. Organotin Content Requirement in Annex XVII, Item 20 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
10. Total Bisphenol A (BPA) Content	Pass*
11. EU- CM/RES (2013) 9 & GUIDELINES ON METALS AND ALLOYS -Extractable Heavy Metals	Pass
12. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Overall Migration	Pass
13. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine	Pass

Test Item	Conclusion
14. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine (29)	Pass
15. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Heavy Metals	Pass
16. EU- AP Resolution 2004(5) -Overall Migration	Pass
17. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific migration of 2,2,4,4-Tetramethylcyclobutane-1,3 diol (TMCD)	Pass
18. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific migration of trimellitic anhydride (expressed as trimellitic acid)	Pass
19. Germany-German Food & Feed Acts LFGB Section 31 and BfR Recommendation-Sensory Test	Pass
20. Germany-German Food & Feed Acts LFGB Section 30 and Guideline of the EDQM Technical Document on metal and alloys -Extractable Heavy Metals	Pass
21. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Overall Migration	Pass
22. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine	Pass
23. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine (29)	Pass
24. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Heavy Metals	Pass
25. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol	Pass
26. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of trimellitic anhydride	Pass
27. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Peroxide Value	Pass
28. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Total Chromium, Vanadium, Zirconium and Hafnium Content	Pass
29. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Extractable Components	Pass
30. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Volatile Organic Matter	Pass

Test Item	Conclusion
31. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Total Platinum	Pass

Remarks: 1. MDL = Method Detection Limit  
 2. ND = Not Detected (<MDL)  
 3. <= Less than  
 4. 1 mg/kg = 1 ppm = 0.0001%  
 5. \*= Conclusion was drawn according to client's specification  
 6. mg/dm<sup>2</sup> = milligram per square decimeter  
 7. The migration results in this report were tested and expressed based on repeated use articles.  
 8. The testing approach, the testing methods, and the reported results in this report demonstrate compliance or non-compliance to the client's requirements which were mutually agreed at the contract review and stipulated in the quotation. The testing approach, the testing methods, and the reported results may not or only partially fulfil the associated requirements of the applicable regulations.



TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch Testing Center

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 Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Description of Tested Subject:

Sample Receiving Info	Sample Description	
Sample Received on: 2021-05-08; Complete test sample A 10 pcs and test sample B 10 pcs.	Overall weight (g):	A: 235; B: 129
Sample Photo		
		
View of test sample A		View of test sample B



Sample	Description	Photo
012	Silvery metal (A/B brush handle)	
013	White coating on metal (A/B brush head)	
014	White soft plastic (A/B brush fur)	

**Specimen Description**

001	Light pink plastic (A/B upper lid) (PP)
002	Pink plastic (A/B neck lid) (PP)
003	Silvery metal (A body) (SS304)
004	white soft plastic (A/B straw) (PE)
005	Transparent silicone (A/B suction mouth/seal)
006	Colorful acrylic resin coating (A)
007	Pink soft plastic (A/B silicone handle)
008	White plastic (A/B button)
009	Silvery metal (A/B thin axle on lid)
010	Silvery metal (A/B thick axle on lid)
011	Transparent plastic (B) (tritan)
012	Silvery metal (A/B brush handle)
013	White coating on metal (A/B brush head)
014	White soft plastic (A/B brush fur)

Test Result(s):

1. EN14350: 2020 Child care articles — Drinking equipment — Safety requirements and test methods.

Clause	Requirement	Result	Verdict
7	<b>Construction and mechanical requirements and tests</b>		
7.1	<b>Order of testing for construction and mechanical properties</b>		
	<p>The tests for construction and mechanical properties shall be carried out in the order given in Table 1, after treatments according to Clause 6.</p> <p>New samples, preferably from the same batch, shall be used for each test (i.e. samples used in one test shall not be used in another test) unless otherwise stated.</p> <p>When tensile tests are applied, clamps or other devices shall hold the components securely during the test without causing damage which results in a test failure. Any failure due to such damage shall be disregarded. If after a number of attempts using different methods secure holding is not possible due to material weakness, the product fails.</p> <p style="text-align: center;"><b>Table 1 — Order of testing for construction and mechanical properties</b></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">7.2 Decoration, inscription and decals</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">7.3 Visual and tactile examination</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">7.4 Small parts</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">7.5 Sealing discs</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                     7.6 Containers                      7.6.1 Volume labelling                      7.6.2 Volumetric accuracy                      7.6.3 Print adhesion of graduations (for re-usable products)                      7.6.4 Thermal shock (for re-usable products )                 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                     7.7 Drinking accessories                      7.7.1 Resistance to tearing                      7.7.2. Push-pull valves                 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                     7.8 Protective covers                      7.8.1 Size of detachable protective cover                      7.8.2 Size of permanent protective cover                      7.8.3 Security of permanent protective cover                 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">7.9 Handles and clips</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">7.10 Finger traps</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">                     7.11 Protruding parts                      7.11.1 Maximum length of protruding parts                      7.11.2 Flexibility of protruding parts                      7.11.3 Security/retention test for protruding parts                 </div> <div style="border: 1px solid black; padding: 5px;">7.12 Cords and loops</div>	-	-
7.2	<b>Decoration, inscription and decals</b>		
	<p>All areas of drinking equipment may be decorated or inscribed by techniques which do not apply materials to their surface, e.g. by laser engraving. The manufacturer has to make sure that possible contamination, e.g. from laser engraving combustion products, does not impair product safety.</p> <p>Areas with intended food contact may only be printed or inmold labelled, if this</p>	Complied	P



Clause	Requirement	Result	Verdict
	<p>printed or inmold labelled area is completely covered by a functional barrier according to EU/10/2011 [2].</p> <p>Areas of drinking accessories that are intended or foreseeable to be mouthed shall not be printed, also not when covered by a functional barrier including inmold labelling.</p> <p>A drinking cup which provides a drinking rim and is also intended to be used without a drinking accessory or a similar product where the child's mouth can contact the outside of the cup shall not be printed and / or inmold labelled on the area extending to 20 mm measured from the drinking rim.</p> <p>Areas of drinking equipment that are not intended to contact food and/or to be mouthed may be decorated or inscribed with techniques which apply colorant such as printing with printing inks.</p> <p>Adhesive decals and labels intended to stay on the product during use are not allowed on any part of drinking equipment. Decorations shall not be attached to any part of drinking equipment by glue.</p>		
<b>7.3</b>	<b>Visual and tactile examination</b>		
	All components of drinking equipment when assembled for use shall be free from any accessible sharp points or edges and free of flash and burrs, which could cause injuries, and shall be assessed by visual and tactile examination. In case of doubt apply test for sharp point and sharp edge according to EN 71-1.	Complied	P
<b>7.4</b>	<b>Small parts</b>		
	All parts which are designed to be removed (e.g. for cleaning) or become separated after the tensile or other mechanical tests shall not fit entirely within the small parts cylinder in any orientation and without compression.	Complied	P
<b>7.5</b>	<b>Additional requirements for sealing discs</b>		
	The minimum diameter of a sealing disc shall be 35 mm.	Complied	P
<b>7.6</b>	<b>Requirements and tests for containers</b>		
<b>7.6.1</b>	<b>Volumetric labelling requirements</b>		
	<p>If containers are marked with graduations these shall include the nominated maximum capacity. The volumes shall be given in millilitres and the letters "ml" or "mL" shall appear at least once. Additional units for measurement can be used if applicable.</p> <p>Drinking cups, feeding bags or holders for feeding bags may be marked with graduations. Feeding bags with graduations shall not be used to prepare formula milk.</p> <p>All feeding bottles shall be marked with graduations. The lowest numbered graduation shall not be more than 60 ml and the highest graduation, numbered or unnumbered, shall be the nominal capacity of the bottle. There shall be numbered or unnumbered graduations every 30ml starting from 60 ml. The gap between numbered graduations shall not exceed 60 ml.</p>	-	N/A
<b>7.6.2</b>	<b>Volumetric accuracy</b>		

Clause	Requirement	Result	Verdict
<b>7.6.2.1</b>	<b>Volumetric accuracy requirements</b>		
	<p>When tested in accordance with 7.6.2.2 the volumetric accuracy of all graduations, unnumbered and numbered, on feeding bottles or if present on feeding cups shall be as follows:</p> <ul style="list-style-type: none"> <li>— all graduations <math>\geq 100</math> ml: <math>\pm 5</math> %;</li> <li>— all graduations <math>&lt; 100</math> ml: <math>\pm 5</math> ml.</li> </ul> <p>For feeding bags and holders for feeding bags that have graduations their volumetric accuracy shall be within <math>\pm 15</math> % as measured according to 7.6.2.2 with the product set up by the method given in the instructions for use.</p>	-	N/A
<b>7.6.3</b>	<b>Print adhesion of graduations</b>		
<b>7.6.3.1</b>	All containers with printed graduations intended for repeated use shall be tested. After being tested in accordance to 7.6.3.3 all graduations required under 7.6.1, numbered and unnumbered, shall be readable.	-	N/A
<b>7.6.4</b>	<b>Thermal shock</b>		
	When tested in accordance with 7.6.4.2 no part of any re-usable container shall crack or break.	Complied	P
<b>7.7</b>	<b>Requirements and tests for drinking accessories</b>		
<b>7.7.1</b>	<b>Tear resistance test</b>		
<b>7.7.1.1</b>	<b>Principle</b>		
	<p>This test measures the tear resistance after the drinking accessory has been punctured. The tear resistance test is in two parts:</p> <ul style="list-style-type: none"> <li>— making the puncture. If the drinking accessory does not puncture it fulfils the requirements of 7.7.1.2 and the subsequent tensile test is not required.</li> <li>— testing the punctured sample with a tensile test.</li> </ul>	Complied	P
<b>7.7.1.2</b>	<b>Requirements</b>		
	When tested in accordance with 7.7.1.4, no drinking accessories which can be punctured during 7.7.1.3 shall break, tear or separate. Straws are excluded from the puncturing according to 7.7.1.3 and shall be submitted un-punctured to the tensile test according to 7.7.1.4.	Complied	P
<b>7.7.2</b>	<b>Push-pull valve</b>		
<b>7.7.2.1</b>	<b>Integrity after simulated use</b>		
	The push-pull valve is opened and closed for 1 000 cycles to simulate its lifespan. This cycle test is followed by a tensile strength test (7.7.2.4), on the same sample. Push – pull – valves may employ also other open and close - mechanisms such as twist action or spring-loaded. Although, a test procedure for these alternatives has not been specified the requirement given in 7.7.2.2 applies. The general principle of the test has also to be followed, that is open and close for 1000 cycles, followed by a standard tensile test.	-	N/A



Clause	Requirement	Result	Verdict
<b>7.7.2.2</b>	<b>Requirements</b>		
	For push – pull mechanisms the opening force shall not exceed 45 N. Push – Pull valves with other mechanisms shall be opened and closed according to the instructions given in the product information. During the cycle test the push-pull valve shall open and close. During either the cycle test or the tensile strength test no part shall break, tear or separate to form small parts.	-	N/A
<b>7.8</b>	<b>Protective covers</b>		
<b>7.8.1</b>	<b>Size of detachable protective cover</b>		
	Detachable protective covers shall be tested for small parts according to 7.4.	-	N/A
<b>7.8.2</b>	<b>Size of permanent protective cover</b>		
	Permanent protective covers, while attached to the product, shall in no direction protrude through template A and B by their own weight. Permanent protective covers on straws are excluded from this test.	Complied	P
<b>7.8.3</b>	<b>Security of permanent protective cover</b>		
<b>7.8.3.1</b>	<b>Principle</b>		
	The purpose is to test the security of a permanent protective cover by means of a tensile strength test, which is followed by the small parts test in the case of detached parts.		
<b>7.8.3.2</b>	<b>Requirement</b>		
	A permanently attached protective cover shall be tested according to 7.8.3.3. No part shall break during the test. Any part that detaches or is released during the test, shall be tested for small parts according to 7.4.	Complied	P
<b>7.9</b>	<b>Handles and clips</b>		
<b>7.9.1</b>	<b>Requirement</b>		
	When tested in accordance with 7.9.2 and visually inspected, no part of the handle or clip when assembled on the container shall break, tear or separate. If the handle or clip is detachable and is detached from the container, without breaking, tearing or separating, during the test then this shall not be deemed as a failure.	-	N/A
<b>7.10</b>	<b>Finger traps</b>		
<b>7.10.1</b>	<b>Requirement</b>		
	To avoid entrapment of fingers in any part of drinking equipment, all accessible holes more than 10 mm deep shall not have an opening width between 5,5 mm and 12 mm, when tested in accordance with 7.10.2.  This requirement only applies to components made of materials with a Shore A hardness of more than 60.	Complied	P
<b>7.11</b>	<b>Protruding parts</b>		
<b>7.11.1</b>	<b>Maximum length</b>		
	The length of any protruding part emerging from the container shall not be greater	Complied	P

Clause	Requirement	Result	Verdict
	than 100 mm when fixed in the normal position of use and tested according to 7.11.1.2.		
<b>7.11.2</b>	<b>Flexibility</b>		
	A force is applied to the end of the protruding part using a steel plate and the point at which the protruding part bends is measured. Assemble the product with each possible configuration which can be used to feed the child. When the protruding part is a straw that can move up and down, perform the test when the base of the straw touches the internal base of the container.		
	When tested in accordance with 7.11.2.3 the protruding part shall collapse to less than 40mm.	Complied	P
<b>7.11.3</b>	<b>Security/retention test of protruding parts</b>		
<b>7.11.3.1</b>	<b>Principle</b>		
	The purpose is to test the security of a drinking accessory, when assembled as intended to be used which is why the test has to be done only on feeding teats. Non – elastic drinking accessories will normally not break or separate even at higher forces than required under 7.11.3.3. When tested in accordance with 7.11.3.3, any individual part of the product (excluding a straw) that constitutes a protrusion and that passes through templates A or B or protrudes from the base of the templates shall meet the requirements of 7.11.3.2.		
<b>7.11.3.2</b>	<b>Requirement</b>		
	When tested in accordance with 7.11.3.3 no part of a feeding teat shall break, tear or separate from the container.	Complied	P
<b>7.12</b>	<b>Cords or loops</b>		
	When tested according to 7.12.3 the maximum length of a single cord shall not exceed 220 mm. If there is a loop it shall have a maximum circumference of 360 mm. If the loop opens when pulled with 90 N, the single cords shall each not exceed a length of 220 mm. Parts of the product which extend the circumference of the loop shall be included in the measurement of the loop.	Complied	P
<b>8</b>	<b>Chemical requirements and test methods</b>		
<b>8.1</b>	<b>General</b>		
	Drinking equipment shall be subjected to the sample preparation as specified in 8.2 and shall meet the requirements as specified in 8.3. Materials not included in Table 3 but used in a component of the drinking equipment shall be assessed to ensure there are no chemicals that present a risk to health whether or not specified in this document.	See result 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6	P
<b>8.2</b>	<b>Preparation of samples for chemical tests</b>		
<b>8.2.1</b>	<b>General</b>		
	The sample preparation described in 8.2.2 shall apply to all tests excepting N-nitrosamines and N-nitrosatable substances release, see 8.5. Samples and test portions shall only be handled with suitable (for example, non-	-	-

Clause	Requirement	Result	Verdict																								
	rubber) gloves to avoid contamination and stored in securely fastened containers free from potential contaminants and protected from light.																										
<b>8.2.2</b>	<b>Boiling</b>																										
	All samples, excluding single-use products (3.11) and ready to use products (3.13), shall be immersed in boiling water, to the requirements of EN ISO 3696, Grade 3, for (10 ± 1) min without touching the walls of the container. The samples shall be removed and kept in a closed container, for example a desiccator to reduce the risk of contamination.	-	-																								
<b>8.3</b>	<b>Requirements by component and material</b>																										
<b>8.3.1</b>	<b>Requirements for food contact materials</b>																										
	<p>The components in Table 2 are intended to be in contact with food. All food contact materials and articles are regulated by European Regulation (EC) 1935/2004 [1] and relevant implementation measures, for example, European Regulation (EU) number 10/2011 for plastic materials and articles intended to come into contact with food [2].</p> <table border="1" data-bbox="496 1048 914 1619"> <caption>Table 2 — Food contact components</caption> <thead> <tr> <th>Definition Clause</th> <th>Component</th> </tr> </thead> <tbody> <tr> <td>3.2</td> <td>Drinking accessory</td> </tr> <tr> <td>3.2.1</td> <td>Feeding teat</td> </tr> <tr> <td>3.2.2</td> <td>Drinking spout</td> </tr> <tr> <td>3.2.3</td> <td>Push pull valve</td> </tr> <tr> <td>3.2.4</td> <td>Straw</td> </tr> <tr> <td>3.3</td> <td>Container</td> </tr> <tr> <td>3.3.1</td> <td>Feeding bottle</td> </tr> <tr> <td>3.3.2</td> <td>Drinking cup</td> </tr> <tr> <td>3.3.3</td> <td>Feeding bag</td> </tr> <tr> <td>3.5</td> <td>Sealing disc</td> </tr> <tr> <td>3.6</td> <td>Protective covers</td> </tr> </tbody> </table>	Definition Clause	Component	3.2	Drinking accessory	3.2.1	Feeding teat	3.2.2	Drinking spout	3.2.3	Push pull valve	3.2.4	Straw	3.3	Container	3.3.1	Feeding bottle	3.3.2	Drinking cup	3.3.3	Feeding bag	3.5	Sealing disc	3.6	Protective covers	See result 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6	P
Definition Clause	Component																										
3.2	Drinking accessory																										
3.2.1	Feeding teat																										
3.2.2	Drinking spout																										
3.2.3	Push pull valve																										
3.2.4	Straw																										
3.3	Container																										
3.3.1	Feeding bottle																										
3.3.2	Drinking cup																										
3.3.3	Feeding bag																										
3.5	Sealing disc																										
3.6	Protective covers																										
<b>8.3.2</b>	<b>Other requirement</b>																										
	Materials used in the manufacture of components of drinking equipment shall be subjected to the tests marked with an x in Table 3. This list is not exhaustive but includes the most common combinations of component, materials of construction and test methods.	See result 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6	P																								
Table 3 — Other requirements and tests to be carried out on components and materials																											
/	/	Requirement Clause	8.4.1	8.5	8.6.1	8.7.1	8.7.1	8.7.1	8.8.2	8.9.1	8.10.1 8.11.1																

Clause		Requirement									Result	Verdict
/	/	Test Clause	8.4.2	8.5	8.6.2	8.7.2	8.7.2	8.7.2	8.8.3	8.9.2	8.10.2 8.11.2	
Definition Clause	Component	Material	Volatiles	N-nitrosamines and N-nitrosatable substances	Migration of certain elements	MBT release	Antioxidants release	Formaldehyde	Colour fastness	Primary aromatic amines	Migration from glass and metal	
3.2.1 to 3.2.4	Drinking accessories	plastic			X				X			
		TPE		X	X			X	X	X		
		silicone rubber	X	X	X			X	X			
		rubber		X	X	X	X	X	X	X		
3.3.1 and 3.3.2	Feeding bottle and drinking cup	glass									X	
		plastic			X				X			
		silicone rubber	X		X				X	X		
		metal										X
		decorations			X					X		
3.3.3	Feeding bag	plastic			X				X			
3.4	Locking ring	plastic			X				X			
3.5	Sealing disc	plastic			X				X			
		silicone rubber	X		X			X	X			
		TPE			X			X	X	X		
3.6	Protective cover	plastic			X				X			
		TPE			X			X	X	X		
3.7 3.8	Handle and clip	plastic			X				X			
		TPE			X			X	X			

<b>8.4</b>	<b>Volatile compounds content of silicone components intended to be put in the mouth or in contact with food</b>										
<b>8.4.1</b>	<b>Requirement</b>										
	Silicone rubber components intended to be put in the mouth or to be in contact with food shall be tested according to 8.4.2, and the results calculated in accordance with 8.4.2.3. The volatile compounds content shall not exceed 0,5 % (m/m). Different silicone rubber components shall be tested as separate samples. Each sample shall be tested as a minimum in duplicate.									See result 1.1	P
<b>8.5</b>	<b>N-nitrosamines and N-nitrosatable substances release</b>										
	Feeding teats made of rubber and other elastomers are regulated by Commission Directive 93/11/EEC [10] and shall be tested according to EN 12868.									See result 1.2	P

Clause	Requirement	Result	Verdict
	Drinking accessories made of rubber and other elastomers shall be tested according to EN 12868 using the sample preparation procedures for elastomer and rubber teats given in that standard.		
<b>8.6</b>	<b>Migration of certain elements</b>		
<b>8.6.1</b>	<b>Requirement</b>		
	<p>When tested in accordance with 8.6.2 the migration of elements from all materials shall not exceed any of the limits given in Table 5.</p> <p>Components manufactured from the same material may be tested as a composite sample or as individual colours. However, if any composite result is greater than any of the limits set in Table 5 divided by the number of components then any of the different colours shall be retested individually.</p> <p>Decorations shall be scraped off the part of the material on which they are printed. If scraping off is not possible or the scraped off weight from one sample is less than 10 mg, the test for decorations as specified in EN 71-3 can be omitted.</p>	See result 1.3	P



Clause	Requirement	Result	Verdict																																								
	<p><b>Table 5 — Limits of element migration from drinking equipment</b></p> <table border="1"> <thead> <tr> <th>Element</th> <th>Limit mg/kg</th> </tr> </thead> <tbody> <tr><td>Aluminium, Al</td><td>6000</td></tr> <tr><td>Antimony, Sb</td><td>120</td></tr> <tr><td>Arsenic, As</td><td>10</td></tr> <tr><td>Barium, Ba</td><td>4 000</td></tr> <tr><td>Boron, B</td><td>3 200</td></tr> <tr><td>Cadmium, Cd</td><td>3,6</td></tr> <tr><td>Chromium, Cr III</td><td>100</td></tr> <tr><td>Chromium Cr VI</td><td>0,002 <sup>a</sup></td></tr> <tr><td>Cobalt, Co</td><td>28</td></tr> <tr><td>Copper, Cu</td><td>1 660</td></tr> <tr><td>Lead, Pb</td><td>5,0</td></tr> <tr><td>Manganese, Mn</td><td>600</td></tr> <tr><td>Mercury, Hg</td><td>20</td></tr> <tr><td>Nickel, Ni</td><td>56</td></tr> <tr><td>Selenium, Se</td><td>100</td></tr> <tr><td>Strontium, Sr</td><td>12 000</td></tr> <tr><td>Tin, Sn</td><td>40 000</td></tr> <tr><td>Organic Tin</td><td>2,5</td></tr> <tr><td>Zinc, Zn</td><td>10 000</td></tr> </tbody> </table> <p><sup>a</sup> If the result is below the Limit of Quantification of EN 71-3 the sample is to be considered passed. See B.21</p>	Element	Limit mg/kg	Aluminium, Al	6000	Antimony, Sb	120	Arsenic, As	10	Barium, Ba	4 000	Boron, B	3 200	Cadmium, Cd	3,6	Chromium, Cr III	100	Chromium Cr VI	0,002 <sup>a</sup>	Cobalt, Co	28	Copper, Cu	1 660	Lead, Pb	5,0	Manganese, Mn	600	Mercury, Hg	20	Nickel, Ni	56	Selenium, Se	100	Strontium, Sr	12 000	Tin, Sn	40 000	Organic Tin	2,5	Zinc, Zn	10 000		
Element	Limit mg/kg																																										
Aluminium, Al	6000																																										
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Zinc, Zn	10 000																																										
8.7	<b>2-mercaptobenzothiazole (MBT), antioxidant and formaldehyde release</b>																																										
8.7.1	<b>Requirements</b>																																										
	<p>When components of drinking equipment are tested in accordance with 8.7.2, the migration of 2-mercaptobenzothiazole shall not exceed the limit given in Table 6.</p> <p><b>Table 6 — MBT release limit (see B.22)</b></p> <table border="1"> <thead> <tr> <th>Compound</th> <th>CAS number</th> <th>Limit <sup>a</sup> mg/kg</th> </tr> </thead> <tbody> <tr> <td>2-mercaptobenzothiazole (MBT)</td> <td>149-30-4</td> <td>8 mg/kg</td> </tr> </tbody> </table> <p><sup>a</sup> Limits are expressed as amount of substance migrating from one kg of rubber</p> <p>When components of drinking equipment are tested in accordance with 8.7.2 the migration of the following antioxidants shall not exceed the limits given in Table 7.</p>	Compound	CAS number	Limit <sup>a</sup> mg/kg	2-mercaptobenzothiazole (MBT)	149-30-4	8 mg/kg	See result 1.4	P																																		
Compound	CAS number	Limit <sup>a</sup> mg/kg																																									
2-mercaptobenzothiazole (MBT)	149-30-4	8 mg/kg																																									



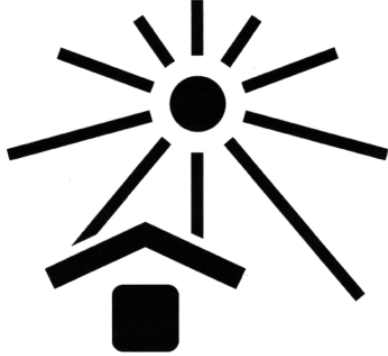
Clause	Requirement	Result	Verdict																											
	<p align="center"><b>Table 7 — Antioxidant release limits (see B.19)</b></p> <table border="1"> <thead> <tr> <th>Chemical name</th> <th>CAS number</th> <th>Limits<sup>a</sup> mg/l</th> </tr> </thead> <tbody> <tr> <td>2,6-bis(1,1-dimethylethyl)-4-methyl-phenol (BHT)</td> <td>128-37-0</td> <td>0,42</td> </tr> <tr> <td>2,2'-methylenebis(4-ethyl-6-tert-butylphenol) (Cyanox 425)</td> <td>88-24-4</td> <td>0,08<sup>b</sup></td> </tr> <tr> <td>2,2'-methylenebis(6-(1,1-dimethylethyl)-4-methyl-phenol) (Antioxidant 2246)</td> <td>119-47-1</td> <td></td> </tr> <tr> <td>Butylated reaction product of p-cresol and dicyclopentadiene (Wingstay L)</td> <td>68610-51-5</td> <td>0,34</td> </tr> <tr> <td>2,4-bis(octylthiomethyl)-6-methylphenol (Irganox1520)</td> <td>110553-27-0</td> <td></td> </tr> <tr> <td>2,4-bis(dodecylthiomethyl)-6-methylphenol (Irganox 1726)</td> <td>110675-26-8</td> <td>0,34<sup>c</sup></td> </tr> </tbody> </table> <p><sup>a</sup> Limits are expressed as amount of substance per litre of migrate.  <sup>b</sup> This limit is the SML(t) for the sum of Cyanox 425 and Antioxidant 2246.  <sup>c</sup> This limit is the SML(t) for the sum of Irganox 1520 and Irganox 1726</p> <p>When components of drinking equipment are tested in accordance with 8.7.2 the migration of formaldehyde shall not exceed the limit given in Table 8.</p> <p align="center"><b>Table 8 — Formaldehyde migration (see B.20)</b></p> <table border="1"> <thead> <tr> <th>Compound</th> <th>CAS number</th> <th>Limit<sup>a</sup> mg/l</th> </tr> </thead> <tbody> <tr> <td>Formaldehyde</td> <td>50-00-0</td> <td>0,5</td> </tr> </tbody> </table> <p><sup>a</sup> Limits are expressed as amount of substance per litre of migrate.</p>	Chemical name	CAS number	Limits <sup>a</sup> mg/l	2,6-bis(1,1-dimethylethyl)-4-methyl-phenol (BHT)	128-37-0	0,42	2,2'-methylenebis(4-ethyl-6-tert-butylphenol) (Cyanox 425)	88-24-4	0,08 <sup>b</sup>	2,2'-methylenebis(6-(1,1-dimethylethyl)-4-methyl-phenol) (Antioxidant 2246)	119-47-1		Butylated reaction product of p-cresol and dicyclopentadiene (Wingstay L)	68610-51-5	0,34	2,4-bis(octylthiomethyl)-6-methylphenol (Irganox1520)	110553-27-0		2,4-bis(dodecylthiomethyl)-6-methylphenol (Irganox 1726)	110675-26-8	0,34 <sup>c</sup>	Compound	CAS number	Limit <sup>a</sup> mg/l	Formaldehyde	50-00-0	0,5		
Chemical name	CAS number	Limits <sup>a</sup> mg/l																												
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol (BHT)	128-37-0	0,42																												
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Compound	CAS number	Limit <sup>a</sup> mg/l																												
Formaldehyde	50-00-0	0,5																												
<b>8.8</b>	<b>Colour fastness</b>																													
<b>8.8.1</b>	<b>Principle</b>																													
	Filter paper is attached to the tested surfaces, soaked with the test liquids (3 % acetic acid, coconut fat) and conditioned. The colour of the filter paper is then compared to a blank.																													
<b>8.8.2</b>	<b>Requirement</b>																													
	Components which have been coloured or printed shall not release any colourant showing a visible difference when compared to the blank in the filter paper test described in 8.8.3.	See result 1.5	P																											
<b>8.9</b>	<b>Migration of primary aromatic amines</b>																													
<b>8.9.1</b>	<b>Requirement</b>																													
	Primary aromatic amines shall not be released into food or food simulant. Compliance shall be established using test methods that can confirm the absence of migration above a limit of detection of 0,01 mg/kg, which applies to the sum of primary aromatic amines released.	-	N/A																											
<b>8.10</b>	<b>Migration of lead and cadmium from glass</b>																													
<b>8.10.1</b>	<b>Requirement</b>																													
	When glass components in contact with food are tested according to 8.10.2 the migration of lead and cadmium shall not exceed 10 µg lead and 3 µg cadmium per litre simulant.	-	N/A																											
<b>8.11</b>	<b>Migration of elements from metal</b>																													

Clause	Requirement	Result	Verdict
8.11.1	<b>Requirement</b>		
	When metal components in contact with food are tested according to 8.11.2 the migration of elements shall not exceed the limits given in "EDQM Metals and Alloys used in food contact materials and articles".	See result 1.6	P
9	<b>Consumer packaging</b>		
	The package as received by the consumer shall include clear, legible instructions for the use and hygienic care of the drinking equipment (see Annex E). These instructions shall be given as described in Clause 10.4 and may be included on a separate leaflet placed inside the packaging or in/on the product. Feeding teats and drinking accessories shall be sold in clean condition. <i>NOTE Consumer packaging should be designed and manufactured to avoid contamination of the product under the foreseeable conditions of transport and storage. Manufacturers when designing consumer packaging should consider environmental issues, such as disposal instructions and recycling.</i>	Complied	P
10	<b>Product information</b>		
10.1	<b>General</b>		
	The text shall be printed in the official main language of the country of retail sale. If additional languages are included, they shall be easy to distinguish, e.g. by separate presentation. Product information for sales by mail order, either via catalogue or from the Internet shall be in the language of the catalogue or Internet page. However, an additional choice of languages may be offered. <i>NOTE The manufacturer or distributor when considering languages for both retail and Internet sales should not only pay attention to the official main language, but also to significant minority languages, which may be one of the official languages.</i> Annex E contains information on good practice for visibility and legibility. The manufacturer or distributor shall provide a statement advising the user to retain product information for future use.	Complied	P
10.2	<b>Purchase information</b>		
	The following information shall be visible at the point of sale: — the name, trademark or other means of identification and the address of the manufacturer, distributor or retailer, including where applicable a website address. The particulars may be abbreviated provided that the abbreviation enables the manufacturer, the distributor or the retailer to be identified and easily contacted; — the number of this document; — warnings and instructions for use given in 10.3 and 10.4 or if these are included within the packaging, an indication that this is the case; — for products made from natural rubber latex: "Produced from natural rubber latex"; — for products containing straws: "Straws are not suitable for a child under 6"	Complied	P

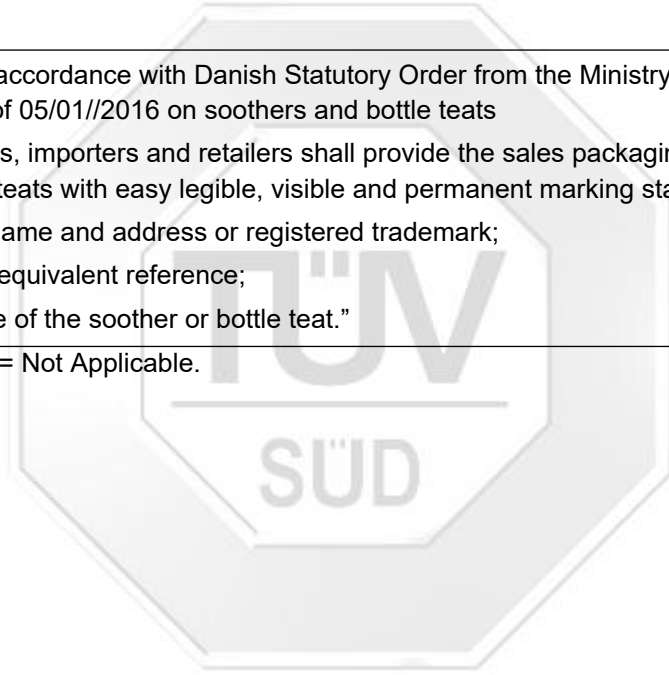
Clause	Requirement	Result	Verdict
	<p>months”;</p> <p>— for single-use products: “This is a single use product and shall be disposed of after first use”;</p> <p>— for drinking accessories sold separately, an indication of the containers for which they are suitable shall be provided.</p> <p>For feeding teats it is recommended that additional information on flow rate, hole size or type of feed should be given.</p> <p>NOTE 1 Examples for visibility at the point of sale are: on the packaging, on a leaflet placed inside the product mbut which is visible at the point of sale; printed on the side of the product, on the Internet page, when sold on line or in the mail order catalogue.</p> <p>NOTE 2 For sentences in quotation marks alternative wording is permitted.</p>		
<b>10.3</b>	<b>Warnings</b>		
<b>10.3.1</b>	<b>General</b>		
	<p>Translations of these warnings into other languages shall use those given in Annex A (normative).</p> <p>All warnings shall be kept together and distinguished from other text. Individual warnings shall be easily distinguishable from one another, e. g. by bullet points or by using a new line.</p> <p>It is recommended that the supplier of drinking equipment include informative literature to explain the reasons and background for the warnings. Examples of possible phrases are:</p> <p>— Accidents have occurred when babies have been left alone with drinking equipment due to the baby falling or if the product has disassembled.</p> <p>— Tooth decay in young children can occur even when non-sweetened fluids are used. This can occur if the baby is allowed to use the bottle/cup for long periods through the day and particularly through the night, when saliva flow is reduced or if it is used as a soother.</p> <p>For glass bottles permanently covered with other material to make it more resitant to breakage, e.g. silicone, there has to be an additional warning on the bottle to make the adult aware of possible but not obvious breakage. Shards or splinters of glass can be in the bottle without being discovered and therefore swallowed by children.</p> <p>The following heading shall be used for the warnings section:</p> <p><b>For your child's safety and health</b></p> <p><b>WARNING!</b></p>	Complied	P
<b>10.3.2</b>	<b>Warnings for all drinking equipment</b>		
	<p>For all drinking equipment the following warnings shall be provided in the form and order given:</p> <p>— Continuous and prolonged sucking of fluids will cause tooth decay.</p> <p>— Always check food temperature before feeding.</p>	Complied	P

Clause	Requirement	Result	Verdict
	<ul style="list-style-type: none"> <li>— Throw away at the first signs of damage or weakness.</li> <li>— Keep components not in use out of the reach of children.</li> <li>— Never attach to cords, ribbons, laces or loose parts of clothing. The child can be strangled.</li> </ul>		
<b>10.3.3</b>	<b>Additional warnings</b>		
	<p>The following additional warnings shall be provided if applicable in the form given.</p> <p><b>For products with feeding teats:</b></p> <ul style="list-style-type: none"> <li>— Never use feeding teats as a soother.</li> <li>— Always use this product with adult supervision.</li> </ul> <p><b>For glass containers:</b></p> <ul style="list-style-type: none"> <li>— Glass containers may break.</li> <li>— Always use this product with adult supervision.</li> </ul> <p><b>For single-use products:</b></p> <ul style="list-style-type: none"> <li>— Single-use only.</li> </ul> <p><b>For products containing cords/loops:</b></p> <ul style="list-style-type: none"> <li>— Due to strangulation hazard do not extend cords or loops.</li> </ul> <p><b>For feeding bags and holders for feeding bags:</b></p> <ul style="list-style-type: none"> <li>— For use with breast milk only. Not to be used for mixing formula milk.</li> </ul>	Complied	P
<b>10.4</b>	<b>Instructions for use</b>		
<b>10.4.1</b>	<b>General</b>		
	Information on the safe use of drinking equipment and the following instructions shall be provided as applicable on the packaging or in a leaflet. Alternative wording is permitted. Further instructions may also be provided.	Complied	P
<b>10.4.2</b>	<b>Re-usable products</b>		
	<ul style="list-style-type: none"> <li>— Before first use, disassemble and clean the product and then place the components in boiling water for 5 min. This is to ensure hygiene.</li> <li>— Before each subsequent use clean carefully to ensure hygiene.</li> <li>— Instruction for at least one suitable method of cleaning.</li> <li>— Where applicable methods of cleaning food from non-visible surfaces.</li> </ul> <p>Instructions shall ensure that all parts including areas which may not be visible but where food has passed through are thoroughly washed and flushed with clean water to remove any food residues.</p> <ul style="list-style-type: none"> <li>— Where applicable, unsuitable common methods of heating, cleaning (including where applicable unsuitable common cleaning agents), storage and use which might damage the product.</li> </ul> <p><b>For feeding teats:</b></p> <ul style="list-style-type: none"> <li>— Inspect the feeding teat before each use and pull the feeding teat in all directions. Throw away at the first signs of damage or weakness.</li> <li>— Do not leave a feeding teat in direct sunlight or heat, or leave in disinfectant</li> </ul>	Complied	P

Clause	Requirement	Result	Verdict
	("sterilising solution") for longer than recommended, as this may weaken the teat		
<b>10.4.3</b>	<b>Single use products</b>		
	— information that it is a single use product which shall be disposed of after first use; — instructions on how to prepare the product for safe use; — if applicable, information on unsuitable common methods for heating and storage which might damage the product.	-	N/A
<b>10.4.4</b>	<b>Ready to use products</b>		
	— Do not use if there are signs of damage or weakness to either the primary packaging or the product. If a ready to use product is not intended to be re-used the instructions for single use products (10.4.3) shall also be provided. If a ready to use product is intended to be re-used this should be clearly stated and the instructions for re-usable products (10.4.2) shall also be provided.	-	N/A
<b>10.4.5</b>	<b>Feeding bags and holders for feeding bags</b>		
	For products with volumetric graduations: — information of the method to assemble the feeding bag and/or holder for a feeding bag to achieve a graduation accuracy of at least $\pm 15\%$ . — information that if more accurate measurement of breast milk is required then a feeding bottle complying with EN 14350 or a more accurate measuring device shall be used.	-	N/A
<b>10.4.6</b>	<b>Microwaveable drinking equipment</b>		
	Take extra care when microwave heating; localized over heating can occur. Always mix the heated food and check the temperature before feeding.	-	N/A
<b>10.5</b>	<b>Supply chain information for products that contain vulcanised rubber</b>		
<b>10.5.1</b>	<b>Requirements</b>		
	The following information shall be provided on any outer packaging (see 3.14) used for storage of products that contain vulcanised rubber (this does not include the packaging intended for consumers). This information in the form of text given in 10.5.2, in the local language, and/or the symbol given in 10.5.3, Figure 23 shall be visible on the outside of the packaging at least once.	Complied	P
<b>10.5.2</b>	<b>Text</b>		
	Alternative wording is permitted: — Keep away from sunlight and heat.	Complied	P

Clause	Requirement	Result	Verdict
	<p>10.5.3 Symbol</p>  <p>Figure 23 — Symbol indicating keep away from sunlight</p>		
<b>Deviation</b>			
	<p>Danish deviation in accordance with Danish Statutory Order from the Ministry of the Environment No. 5 of 05/01//2016 on soothers and bottle teats</p> <p>§3 “All manufacturers, importers and retailers shall provide the sales packaging of soothers and bottle teats with easy legible, visible and permanent marking stating:</p> <p>a) Name/company name and address or registered trademark;</p> <p>b) Batch number or equivalent reference;</p> <p>c) Commercial name of the soother or bottle teat.”</p>	-	N/A

Abbreviation: P = Pass; N/A = Not Applicable.





1.1 EN 14350:2020 Volatile compounds content

Test with reference to EN 14350:2020.

Parameter	Unit	MDL	Limit	Result(s)
				005
Volatile compounds content	%	0.1	0.5	0.31
<b>Conclusion</b>				<b>Pass</b>

1.2 EN 14350:2020 N-nitrosamines and Nitrosatable Substances Release

With reference to EN 12868:2017, followed by analysis LC-MS-MS

Test Item(s)	Result(s) [mg/kg]	MDL [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	005			
Nitrosamine	<0.01	0.01	0.01	Pass

Test Item(s)	Result(s) [mg/kg]	MDL [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	005			
Nitrosatable Substances	<0.1	0.1	0.1	Pass

Note: Tested N-nitrosamines and N-nitrosable substances are listed below:

	Compounds name	Abbreviation	CAS#
1	N-Nitrosodimethylamine	NDMA	62-75-9
2	N-nitrosodiethylamine	NDEA	55-18-5
3/4	N-nitrosopyrrolidine or N-nitroso N-methyl N-phenylamine	NPYR or NMPPhA	930-55-2 or 614-00-6
5	N-nitrosomorpholine	NMOR	59-89-2
6	N-Nitrosodi-n-propylamine	NDPA	621-64-7
7	N-nitrosopiperidine	NPIP	100-75-4
8	N-nitroso N-ethyl N-phenylamine	NEPhA	612-64-6
9	N-Nitrosodi-n-butylamine	NDBA	924-16-3
10	N-nitrosodibenzylamine	NDBzA	5336-53-8
11	N-Nitrosodiisononylamine	NDiNA	1207995-62-7
12	N-nitrosodiisobutylamine	NDiBA	997-95-5

1.3 EN 14350:2020 Migration of certain elements

Test with reference to EN 14350:2020 and EN 71-3:2019, determination by ICP-MS.

Test Item	Limit [mg/kg]	MDL [mg/kg]	Result(s) [mg/kg]			
			001	002	004	005
Soluble Aluminum	6000	5	ND	ND	ND	ND
Soluble Antimony	120	5	ND	ND	ND	ND
Soluble Arsenic	10	2.5	ND	ND	ND	ND
Soluble Barium	4000	5	ND	ND	ND	ND
Soluble Boron	3200	5	ND	ND	ND	ND
Soluble Cadmium	3.6	2.5	ND	ND	ND	ND
Soluble Chromium III	100	0.005	ND	ND	ND	ND
Soluble Chromium VI	0.005*	0.005	ND	ND	ND	ND
Soluble Cobalt	28	5	ND	ND	ND	ND
Soluble Copper	1660	5	ND	ND	ND	ND
Soluble Lead	5.0	2.5	ND	ND	ND	ND
Soluble Manganese	600	5	ND	ND	ND	ND
Soluble Mercury	20	5	ND	ND	ND	ND
Soluble Nickel	56	5	ND	ND	ND	ND
Soluble Selenium	100	5	ND	ND	ND	ND
Soluble Strontium	12000	5	ND	ND	ND	ND
Soluble Tin	40000	5	ND	ND	ND	ND
Organic Tin	2.5	2.5	ND	ND	ND	ND
Soluble Zinc	10000	5	ND	ND	ND	ND
<b>Conclusion</b>			<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

**Test Report****No.: 70.431.21.12659.01****Date: 2021-06-24**

Test Item	Limit [mg/kg]	MDL [mg/kg]	Result(s) [mg/kg]			
			006	007	008	011
Soluble Aluminum	6000	5	ND	1064	ND	ND
Soluble Antimony	120	5	ND	ND	ND	ND
Soluble Arsenic	10	2.5	ND	ND	ND	ND
Soluble Barium	4000	5	ND	8.5	ND	ND
Soluble Boron	3200	5	ND	ND	ND	ND
Soluble Cadmium	3.6	2.5	ND	ND	ND	ND
Soluble Chromium III	100	0.005	0.255	6.7	ND	0.213
Soluble Chromium VI	0.005*	0.005	ND	ND	ND	ND
Soluble Cobalt	28	5	ND	ND	ND	ND
Soluble Copper	1660	5	ND	ND	ND	ND
Soluble Lead	5.0	2.5	ND	ND	ND	ND
Soluble Manganese	600	5	ND	ND	ND	ND
Soluble Mercury	20	5	ND	ND	ND	ND
Soluble Nickel	56	5	ND	7.1	ND	ND
Soluble Selenium	100	5	ND	ND	ND	ND
Soluble Strontium	12000	5	ND	7.9	ND	ND
Soluble Tin	40000	5	ND	ND	ND	ND
Organic Tin	2.5	2.5	ND	ND	ND	ND
Soluble Zinc	10000	5	ND	384	ND	ND
<b>Conclusion</b>			<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

Notes : \*Limit was according to EN 71-3:2019, If the result is below the Limit of Quantification of EN 71-3, the sample is to be considered passed.

1.4 EN 14350:2020 Formaldehyde migration

Test with reference to EN 14350:2020.

Parameter	CAS No.	Unit	MDL	Limit	Result
					005
Formaldehyde	50-00-0	mg/L	0.3	0.5	ND
<b>Conclusion</b>					<b>Pass</b>

1.5 EN 14350:2020 Colour fastness

Test with reference to EN 14350:2020.

Simulant(s) Used	Test Condition	Result(s)	Maximum Permissible Limit	Conclusion
		001		
3% Acetic acid	50°C for 5 hours	No bleeding	No bleeding	Pass
Coconut oil	50°C for 5 hours	No bleeding	No bleeding	Pass

Simulant(s) Used	Test Condition	Result(s)	Maximum Permissible Limit	Conclusion
		002		
3% Acetic acid	50°C for 5 hours	No bleeding	No bleeding	Pass
Coconut oil	50°C for 5 hours	No bleeding	No bleeding	Pass

Simulant(s) Used	Test Condition	Result(s)	Maximum Permissible Limit	Conclusion
		006		
3% Acetic acid	50°C for 5 hours	No bleeding	No bleeding	Pass
Coconut oil	50°C for 5 hours	No bleeding	No bleeding	Pass

Simulant(s) Used	Test Condition	Result(s)	Maximum Permissible Limit	Conclusion
		007		
3% Acetic acid	50°C for 5 hours	No bleeding	No bleeding	Pass
Coconut oil	50°C for 5 hours	No bleeding	No bleeding	Pass

1.6 EN 14350:2020 Extractable Heavy Metals

Test with reference to EN 13130-1:2004

Test Item(s)	Result(s) [mg/kg]		Maximum Permissible Limit [mg/kg]		Conclusion
	003		3 <sup>rd</sup> migration	1 <sup>st</sup> + 2 <sup>nd</sup> migration	
	3 <sup>rd</sup> migration	1 <sup>st</sup> + 2 <sup>nd</sup> migration			-
Silver	<0.01	<0.02	0.08	0.56	Pass
Aluminium	<0.5	<1.0	5	35	Pass
Cobalt	<0.01	<0.02	0.02	0.14	Pass
Chromium	<0.02	<0.04	0.25	1.75	Pass
Copper	<0.2	<0.4	4	28	Pass
Iron	<1.0	<2.0	40	280	Pass
Magnesium	0.1	0.3	--	--	--
Manganese	<0.2	<0.4	1.8	12.6	Pass
Molybdenum	<0.01	<0.02	0.12	0.84	Pass
Nickel	<0.02	<0.04	0.14	0.98	Pass
Tin	<1.0	<2.0	100	700	Pass
Titanium	<0.05	<0.1	--	--	--
Vanadium	<0.01	<0.02	0.01	0.07	Pass
Zinc	<0.5	<1.0	5	35	Pass
Arsenic	<0.001	<0.002	0.002	0.014	Pass
Barium	<0.1	<0.2	1.2	8.4	Pass
Beryllium	<0.01	<0.02	0.01	0.07	Pass
Cadmium	<0.001	<0.002	0.005	0.035	Pass
Mercury	<0.001	<0.002	0.003	0.021	Pass
Lithium	<0.01	<0.02	0.048	0.336	Pass
Lead	<0.01	<0.02	0.01	0.07	Pass
Antimony	<0.01	<0.02	0.04	0.28	Pass
Thallium	<0.0001	<0.0002	0.0001	0.0007	Pass

**2. Total Lead Content Requirement in Annex XVII, Item 63 of the REACH Regulation (EC) No 1907/2006 with its Amendments**

Test with reference to in house method, determination by ICP-OES/ICP-MS.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001+002+008	mg/kg	10	500	<10.0	Pass
006+013	mg/kg	10	500	<10.0	Pass
007+014	mg/kg	10	500	<10.0	Pass
009	mg/kg	10	500	<10.0	Pass
010	mg/kg	10	500	<10.0	Pass
012	mg/kg	10	500	<10.0	Pass

**3. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation(EC) No 1907/2006 with its Amendments**

Test with reference to Acid digestion and EN 1122:2001 Method B, determination by ICP-OES/ICP-MS.

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001+002+008	mg/kg	5	<100	<5.0	Pass
004+011	mg/kg	5	<100	<5.0	Pass
005+007+014	mg/kg	5	<100	<5.0	Pass
006+013	mg/kg	10	<1000	<10.0	Pass

**4. Phthalates Content in Annex XVII Items 51 and 52 of the REACH Regulation(EC) No 1907/2006 with its Amendments**

Test with reference to in house method, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+002+008	004+011
Bis (2-ethylhexyl) phthalate, DEHP	117-81-7	%	0.005	-	ND	ND
Dibutyl phthalate, DBP	84-74-2	%	0.005	-	ND	ND
Benzyl butyl phthalate, BBP	85-68-7	%	0.005	-	ND	ND
Diisobutylphthalate, DIBP	84-69-5	%	0.005	-	ND	ND
<b>Sum of DBP, BBP, DEHP, DIBP</b>	-	%	0.005	<b>&lt;0.1</b>	<b>ND</b>	<b>ND</b>
Di-isononyl phthalate, DINP	28553-12-0 , 68515-48-0	%	0.005	-	ND	ND
Di-isodecyl phthalate, DIDP	26761-40-0 , 68515-49-1	%	0.005	-	ND	ND
Di-n-octyl phthalate, DNOP	117-84-0	%	0.005	-	ND	ND
<b>Sum of DINP, DIDP, DNOP</b>	-	%	0.005	<b>&lt;0.1</b>	<b>ND</b>	<b>ND</b>
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>



Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005+007+014	006+013
Bis (2-ethylhexyl) phthalate, DEHP	117-81-7	%	0.005	-	ND	ND
Dibutyl phthalate, DBP	84-74-2	%	0.005	-	ND	ND
Benzyl butyl phthalate, BBP	85-68-7	%	0.005	-	ND	ND
Diisobutylphthalate, DIBP	84-69-5	%	0.005	-	ND	ND
<b>Sum of DBP, BBP, DEHP, DIBP</b>	-	%	0.005	<b>&lt;0.1</b>	<b>ND</b>	<b>ND</b>
Di-isononyl phthalate, DINP	28553-12-0 , 68515-48-0	%	0.005	-	ND	ND
Di-isodecyl phthalate, DIDP	26761-40-0 , 68515-49-1	%	0.005	-	ND	ND
Di-n-octyl phthalate, DNOP	117-84-0	%	0.005	-	ND	ND
<b>Sum of DINP, DIDP, DNOP</b>	-	%	0.005	<b>&lt;0.1</b>	<b>ND</b>	<b>ND</b>
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

#### 5. Polycyclic Aromatic Hydrocarbons (PAHs) Content in Annex XVII item 50 of the REACH Regulation (EC) No 1907/2006 with its Amendments

Test with reference to AfPS GS 2019:01, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+002+008	004+011
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	<0.5	ND	ND
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	<0.5	ND	ND
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	<0.5	ND	ND
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	<0.5	ND	ND
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	<0.5	ND	ND
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	<0.5	ND	ND
Chrysene (CHR)	218-01-9	mg/kg	0.1	<0.5	ND	ND
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	<0.5	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005+007+014	006+013
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	<0.5	ND	ND
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	<0.5	ND	ND
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	<0.5	ND	ND
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	<0.5	ND	ND
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	<0.5	ND	ND
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	<0.5	ND	ND
Chrysene (CHR)	218-01-9	mg/kg	0.1	<0.5	ND	ND
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	<0.5	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

#### 6. Content of 15 PAHs (Polycyclic Aromatic Hydrocarbons)

Test with reference to AfPS GS 2019:01, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+002+008	004+011
Naphthalene	91-20-3	mg/kg	0.1	<2	ND	ND
Phenanthrene	85-01-8	mg/kg	0.1	-	ND	ND
Anthracene	120-12-7	mg/kg	0.1	-	ND	ND
Fluoranthene	206-44-0	mg/kg	0.1	-	ND	ND
Pyrene	129-00-0	mg/kg	0.1	-	ND	ND
<b>Sum of 4 PAHs</b>	-	mg/kg	0.1	<b>&lt;5</b>	<b>ND</b>	<b>ND</b>
Benzo[a]anthracene	56-55-3	mg/kg	0.1	<0.2	ND	ND
Chrysene	218-01-9	mg/kg	0.1	<0.2	ND	ND
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	<0.2	ND	ND
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	<0.2	ND	ND
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	<0.2	ND	ND
Benzo[a]pyrene	50-32-8	mg/kg	0.1	<0.2	ND	ND
Benzo[e]pyrene	192-97-2	mg/kg	0.1	<0.2	ND	ND
Benzo[ghi]perylene	191-24-2	mg/kg	0.1	<0.2	ND	ND
dibenzo[ah]anthracene	53-70-3	mg/kg	0.1	<0.2	ND	ND
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	<0.2	ND	ND
<b>Sum of detected 15 PAHs</b>	-	mg/kg	0.1	<b>&lt;5</b>	<b>ND</b>	<b>ND</b>
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005+007+014	006+013
Naphthalene	91-20-3	mg/kg	0.1	<2	ND	0.2
Phenanthrene	85-01-8	mg/kg	0.1	-	ND	0.2
Anthracene	120-12-7	mg/kg	0.1	-	ND	ND
Fluoranthene	206-44-0	mg/kg	0.1	-	ND	ND
Pyrene	129-00-0	mg/kg	0.1	-	ND	ND
<b>Sum of 4 PAHs</b>	-	mg/kg	0.1	<b>&lt;5</b>	<b>ND</b>	<b>0.2</b>
Benzo[a]anthracene	56-55-3	mg/kg	0.1	<0.2	ND	ND
Chrysene	218-01-9	mg/kg	0.1	<0.2	ND	ND
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	<0.2	ND	ND
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	<0.2	ND	ND
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	<0.2	ND	ND
Benzo[a]pyrene	50-32-8	mg/kg	0.1	<0.2	ND	ND
Benzo[e]pyrene	192-97-2	mg/kg	0.1	<0.2	ND	ND
Benzo[ghi]perylene	191-24-2	mg/kg	0.1	<0.2	ND	ND
dibenzo[ah]anthracene	53-70-3	mg/kg	0.1	<0.2	ND	ND
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	<0.2	ND	ND
<b>Sum of detected 15 PAHs</b>	-	mg/kg	0.1	<b>&lt;5</b>	<b>ND</b>	<b>0.4</b>
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>

Remark: 1. Category was specified by client  
 2. Limit according to AfPS GS 2019:01PAK :

Parameter	Category 1	Category 2		Category 3	
		Used by children (mg/kg)	Other consumer products (mg/kg)	Used by children (mg/kg)	Other consumer products (mg/kg)
	Materials intended to be taken into the mouth, or materials in toys according to Directive 2009/48/EC or materials in articles intended for the use by children up to 3 years of age having long-term skin contact (more than 30s) within intended use	Materials that do not fall into category 1, with long-term skin contact (more than 30s) or repeated short-term skin contact within intended or foreseeable use		Materials that do neither fall into category 1 nor 2, with short-term skin contact (up to 30s) within foreseeable use	
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoroanthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoroanthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoroanthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1

Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Phenanthrene, Pyrene, Anthracene, Fluoranthene	Sum < 1	Sum < 5	Sum < 10	Sum < 20	Sum < 50
Naphthalene	< 1	< 2		< 10	
Sum 15 PAH	< 1	< 5	< 10	< 20	< 50

7. Short Chain Chlorinated Paraffins (SCCPs) Content – in Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA)

Test with reference to in house method, solvent extraction by ultrasonic bath and determination by GC-MS-NCI.

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					001+002+008
SCCP	85535-84-8	%	0.01	0.1	<0.01
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					004+011
SCCP	85535-84-8	%	0.01	0.1	<0.01
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					005+007+014
SCCP	85535-84-8	%	0.01	0.1	<0.01
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					006+013
SCCP	85535-84-8	%	0.01	0.1	<0.01
<b>Conclusion</b>					<b>Pass</b>

**8. Short Chain Chlorinated Paraffins (SCCPs) Content – European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)**

Test with reference to in house method, solvent extraction by ultrasonic bath and determination by GC-MS-NCI.

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					001+002+008
SCCP	85535-84-8	%	0.01	0.15	<0.01
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					004+011
SCCP	85535-84-8	%	0.01	0.15	<0.01
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					005+007+014
SCCP	85535-84-8	%	0.01	0.15	<0.01
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result(s) [%]
					006+013
SCCP	85535-84-8	%	0.01	0.15	<0.01
<b>Conclusion</b>					<b>Pass</b>

**9. Organotin Content Requirement in Annex XVII, Item 20 of the REACH Regulation(EC) No 1907/2006 with its Amendments**

Test with reference to ISO 17353:2004, determination by GC-MS.

Compounds	Unit	MDL	Limit	Results		
				001+002+008	004+011	005+007+014
DBT	mg/kg	0.025	<1000	<0.025	<0.025	<0.025
TBT	mg/kg	0.025	<1000	<0.025	<0.025	<0.025
DOT	mg/kg	0.025	<1000	<0.025	<0.025	<0.025
TcyT	mg/kg	0.025	<1000	<0.025	<0.025	<0.025
TPhT	mg/kg	0.025	<1000	<0.025	<0.025	<0.025
<b>Conclusion</b>				<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

Compounds	Unit	MDL	Limit	Results
				006+013
DBT	mg/kg	0.025	<1000	<0.025
TBT	mg/kg	0.025	<1000	<0.025
DOT	mg/kg	0.025	<1000	<0.025
TcyT	mg/kg	0.025	<1000	<0.025
TPhT	mg/kg	0.025	<1000	<0.025
<b>Conclusion</b>				<b>Pass</b>

**10. Total Bisphenol A (BPA) Content**

Test with reference to in house method, solvent extraction, determination by HPLC-MS-MS

Compound	CAS No.	Unit	MDL	Limit	Result
					004
Bisphenol A	80-05-7	mg/kg	0.1	ND	ND
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result
					005
Bisphenol A	80-05-7	mg/kg	0.1	ND	ND
<b>Conclusion</b>					<b>Pass</b>

Compound	CAS No.	Unit	MDL	Limit	Result
					011
Bisphenol A	80-05-7	mg/kg	0.1	ND	ND
<b>Conclusion</b>					<b>Pass</b>

Remark: 1. Limit was according to client's requirement



**11. EU- CM/RES (2013) 9 & GUIDELINES ON METALS AND ALLOYS - Extractable Heavy Metals**

- Test with reference to EN 13130-1:2004.
- Test condition: 0.5% Citric acid, 40°C for 24 hours

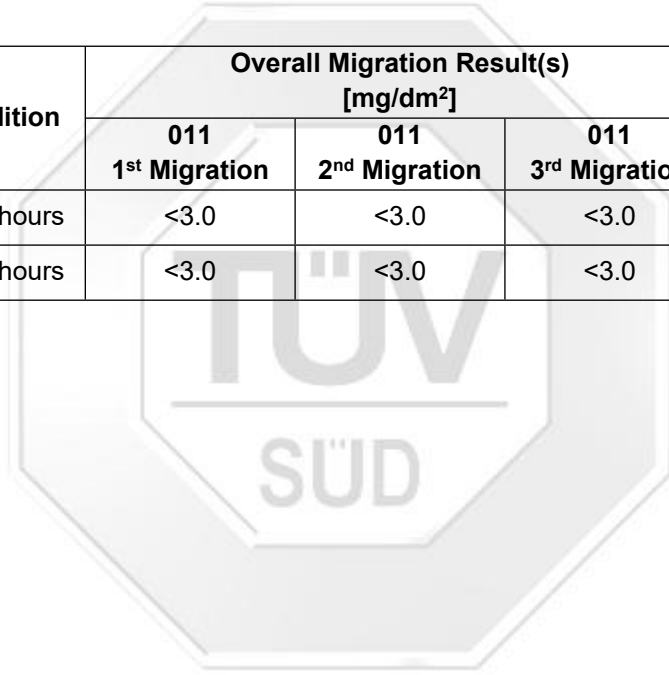
Test Item(s)	Result(s) [mg/kg]		Maximum Permissible Limit [mg/kg]		Conclusion
	003		3 <sup>rd</sup> migration	1 <sup>st</sup> + 2 <sup>nd</sup> migration	
	3 <sup>rd</sup> migration	1 <sup>st</sup> + 2 <sup>nd</sup> migration			
Silver	<0.01	<0.02	0.08	0.56	Pass
Aluminium	<0.5	<1.0	5	35	Pass
Cobalt	<0.01	<0.02	0.02	0.14	Pass
Chromium	<0.02	<0.04	0.25	1.75	Pass
Copper	<0.2	<0.4	4	28	Pass
Iron	<1.0	<2.0	40	280	Pass
Magnesium	0.1	0.3	--	--	--
Manganese	<0.2	<0.4	1.8	12.6	Pass
Molybdenum	<0.01	<0.02	0.12	0.84	Pass
Nickel	<0.02	<0.04	0.14	0.98	Pass
Tin	<1.0	<2.0	100	700	Pass
Titanium	<0.05	<0.1	--	--	--
Vanadium	<0.01	<0.02	0.01	0.07	Pass
Zinc	<0.5	<1.0	5	35	Pass
Arsenic	<0.001	<0.002	0.002	0.014	Pass
Barium	<0.1	<0.2	1.2	8.4	Pass
Beryllium	<0.01	<0.02	0.01	0.07	Pass
Cadmium	<0.001	<0.002	0.005	0.035	Pass
Mercury	<0.001	<0.002	0.003	0.021	Pass
Lithium	<0.01	<0.02	0.048	0.336	Pass
Lead	<0.01	<0.02	0.01	0.07	Pass
Antimony	<0.01	<0.02	0.04	0.28	Pass
Thallium	<0.0001	<0.0002	0.0001	0.0007	Pass

**12. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Overall Migration**

- With reference to EN1186-1:2002 for selection of test methods;  
EN1186-3:2002 aqueous food simulants by total immersion method;  
EN1186-9:2002 aqueous food simulants by article filling method;
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Simulant(s) Used	Test Condition	Overall Migration Result(s) [mg/dm <sup>2</sup> ]			Maximum Permissible Limit [mg/dm <sup>2</sup> ]	Conclusion
		004 1 <sup>st</sup> Migration	004 2 <sup>nd</sup> Migration	004 3 <sup>rd</sup> Migration		
3% Acetic acid	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass
50% Ethanol	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass

Simulant(s) Used	Test Condition	Overall Migration Result(s) [mg/dm <sup>2</sup> ]			Maximum Permissible Limit [mg/dm <sup>2</sup> ]	Conclusion
		011 1 <sup>st</sup> Migration	011 2 <sup>nd</sup> Migration	011 3 <sup>rd</sup> Migration		
3% Acetic acid	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass
50% Ethanol	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass



**13. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific Migration of Primary Aromatic Amine**

- With reference to EN 13130-1:2004, followed by Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II,XXI
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	Result(s) [mg/kg]	Method Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	004			
Specific migration of primary aromatic amines -1 <sup>st</sup> Migration	ND	0.01	0.01	Pass
Specific migration of primary aromatic amines -2 <sup>nd</sup> Migration	ND	0.01	0.01	Pass
Specific migration of primary aromatic amines -3 <sup>rd</sup> Migration	ND	0.01	0.01	Pass

Test Item(s)	Result(s) [mg/kg]	Method Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	011			
Specific migration of primary aromatic amines -1 <sup>st</sup> Migration	ND	0.01	0.01	Pass
Specific migration of primary aromatic amines -2 <sup>nd</sup> Migration	ND	0.01	0.01	Pass
Specific migration of primary aromatic amines -3 <sup>rd</sup> Migration	ND	0.01	0.01	Pass

**14. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific Migration of Primary Aromatic Amine (29)**

- With reference to EN 13130-1:2004.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]		
					004 1 <sup>st</sup> Migration	004 2 <sup>nd</sup> Migration	004 3 <sup>rd</sup> Migration
1	4-Aminobiphenyl	92-67-1	0.002	0.002	ND	ND	ND
2	4,4'-Benzidine	92-87-5	0.002	0.002	ND	ND	ND
3	4-Chloro-2-methylaniline	95-69-2	0.002	0.002	ND	ND	ND
4	2-Naphthylamine	91-59-8	0.002	0.002	ND	ND	ND
5	o-Aminoazotoluene	97-56-3	0.002	0.002	ND	ND	ND
6	5-Nitro-o-toluidine	99-55-8	0.002	0.002	ND	ND	ND
7	4-Chloroaniline	106-47-8	0.002	0.002	ND	ND	ND
8	4-Methoxy-1,3-phenylenediamine	615-05-4	0.002	0.002	ND	ND	ND
9	Bis-(4-aminophenyl) methane	101-77-9	0.002	0.002	ND	ND	ND
10	3,3'-Dichlorobenzidine	91-94-1	0.002	0.002	ND	ND	ND
11	3,3'-Dimethoxybenzidine	119-90-4	0.002	0.002	ND	ND	ND
12	o-Tolidine	119-93-7	0.002	0.002	ND	ND	ND
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.002	0.002	ND	ND	ND
14	2-Methoxy-5-methylaniline	120-71-8	0.002	0.002	ND	ND	ND
15	4,4'-Methylene bis(o-chloroaniline)	101-14-4	0.002	0.002	ND	ND	ND
16	4,4'-Oxydianiline	101-80-4	0.002	0.002	ND	ND	ND
17	4,4'-Thiodianiline	139-65-1	0.002	0.002	ND	ND	ND
18	o-Toluidine	95-53-4	0.002	0.002	ND	ND	ND
19	2,4-Diaminotoluene	95-80-7	0.002	0.002	ND	ND	ND
20	2,4,5-Trimethylaniline	137-17-7	0.002	0.002	ND	ND	ND
21	o-Anisidine	90-04-0	0.002	0.002	ND	ND	ND
22	4-Amino-azobenzene	60-09-3	0.002	0.002	ND	ND	ND
23	1,3-Phenylenediamine	108-45-2	0.002	0.002	ND	ND	ND
24	2,4-Dimethylaniline	95-68-1	0.002	0.002	ND	ND	ND
25	2,6-Dimethylaniline	87-62-7	0.002	0.002	ND	ND	ND
26	Aniline	62-53-3	0.002	0.002	ND	ND	ND
27	1,4-Phenylenediamine	106-50-3	0.002	0.002	ND	ND	ND
28	1,5-Diaminonaphthalene	2243-62-1	0.002	0.002	ND	ND	ND
29	2,6-toluenediamine	823-40-5	0.002	0.002	ND	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]		
					011 1 <sup>st</sup> Migration	011 2 <sup>nd</sup> Migration	011 3 <sup>rd</sup> Migration
1	4-Aminobiphenyl	92-67-1	0.002	0.002	ND	ND	ND
2	4,4'-Benzidine	92-87-5	0.002	0.002	ND	ND	ND
3	4-Chloro-2-methylaniline	95-69-2	0.002	0.002	ND	ND	ND
4	2-Naphthylamine	91-59-8	0.002	0.002	ND	ND	ND
5	o-Aminoazotoluene	97-56-3	0.002	0.002	ND	ND	ND
6	5-Nitro-o-tolidine	99-55-8	0.002	0.002	ND	ND	ND
7	4-Chloroaniline	106-47-8	0.002	0.002	ND	ND	ND
8	4-Methoxy-1,3-phenylenediamine	615-05-4	0.002	0.002	ND	ND	ND
9	Bis-(4-aminophenyl) methane	101-77-9	0.002	0.002	ND	ND	ND
10	3,3'-Dichlorobenzidine	91-94-1	0.002	0.002	ND	ND	ND
11	3,3'-Dimethoxybenzidine	119-90-4	0.002	0.002	ND	ND	ND
12	o-Tolidine	119-93-7	0.002	0.002	ND	ND	ND
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.002	0.002	ND	ND	ND
14	2-Methoxy-5-methylaniline	120-71-8	0.002	0.002	ND	ND	ND
15	4,4'-Methylene bis(o-chloroaniline)	101-14-4	0.002	0.002	ND	ND	ND
16	4,4'-Oxydianiline	101-80-4	0.002	0.002	ND	ND	ND
17	4,4'-Thiodianiline	139-65-1	0.002	0.002	ND	ND	ND
18	o-Toluidine	95-53-4	0.002	0.002	ND	ND	ND
19	2,4-Diaminotoluene	95-80-7	0.002	0.002	ND	ND	ND
20	2,4,5-Trimethylaniline	137-17-7	0.002	0.002	ND	ND	ND
21	o-Anisidine	90-04-0	0.002	0.002	ND	ND	ND
22	4-Amino-azobenzene	60-09-3	0.002	0.002	ND	ND	ND
23	1,3-Phenylenediamine	108-45-2	0.002	0.002	ND	ND	ND
24	2,4-Dimethylaniline	95-68-1	0.002	0.002	ND	ND	ND
25	2,6-Dimethylaniline	87-62-7	0.002	0.002	ND	ND	ND
26	Aniline	62-53-3	0.002	0.002	ND	ND	ND
27	1,4-Phenylenediamine	106-50-3	0.002	0.002	ND	ND	ND
28	1,5-Diaminonaphthalene	2243-62-1	0.002	0.002	ND	ND	ND
29	2,6-toluenediamine	823-40-5	0.002	0.002	ND	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

**15. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific Migration of Heavy Metals**

- With reference to EN 13130-1:2004, determination by ICP-MS.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	MDL [mg/kg]	Result(s) [mg/kg]			Limit [mg/kg]	Conclusion
		004 1 <sup>st</sup> Migration	004 2 <sup>nd</sup> Migration	004 3 <sup>rd</sup> Migration		
Iron (Fe)	1.0	ND	ND	ND	48	Pass
Zinc (Zn)	1.0	ND	ND	ND	5	Pass
Copper (Cu)	0.5	ND	ND	ND	5	Pass
Manganese (Mn)	0.05	ND	ND	ND	0.6	Pass
Cobalt (Co)	0.05	ND	ND	ND	0.05	Pass
Barium (Ba)	0.1	ND	ND	ND	1	Pass
Lithium (Li)	0.1	ND	ND	ND	0.6	Pass
Aluminium (Al)	0.1	0.2	ND	ND	1	Pass
Nickel (Ni)	0.01	ND	ND	ND	0.02	Pass
Antimony (Sb)	0.01	ND	ND	ND	0.04	Pass
Arsenic (As)	0.01	ND	ND	ND	0.01	Pass
Cadmium (Cd)	0.002	ND	ND	ND	0.002	Pass
Chromium (Cr)	0.01	ND	ND	ND	0.01	Pass
Lead (Pb)	0.01	0.012	ND	ND	0.01	Pass
Mercury (Hg)	0.01	ND	ND	ND	0.01	Pass
Europium	0.01	ND	ND	ND	Sum 0.05	Pass
Gadolinium	0.01	ND	ND	ND		Pass
Lanthanum	0.01	ND	ND	ND		Pass
Terbium	0.01	ND	ND	ND		Pass



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Test Item(s)	MDL [mg/kg]	Result(s) [mg/kg]			Limit [mg/kg]	Conclusion
		011 1 <sup>st</sup> Migration	011 2 <sup>nd</sup> Migration	011 3 <sup>rd</sup> Migration		
Iron (Fe)	1.0	ND	ND	ND	48	Pass
Zinc (Zn)	1.0	ND	ND	ND	5	Pass
Copper (Cu)	0.5	ND	ND	ND	5	Pass
Manganese (Mn)	0.05	ND	ND	ND	0.6	Pass
Cobalt (Co)	0.05	ND	ND	ND	0.05	Pass
Barium (Ba)	0.1	ND	ND	ND	1	Pass
Lithium (Li)	0.1	ND	ND	ND	0.6	Pass
Aluminium (Al)	0.1	0.2	ND	ND	1	Pass
Nickel (Ni)	0.01	ND	ND	ND	0.02	Pass
Antimony (Sb)	0.01	ND	ND	ND	0.04	Pass
Arsenic (As)	0.01	ND	ND	ND	0.01	Pass
Cadmium (Cd)	0.002	ND	ND	ND	0.002	Pass
Chromium (Cr)	0.01	ND	ND	ND	0.01	Pass
Lead (Pb)	0.01	ND	ND	ND	0.01	Pass
Mercury (Hg)	0.01	ND	ND	ND	0.01	Pass
Europium	0.01	ND	ND	ND	Sum 0.05	Pass
Gadolinium	0.01	ND	ND	ND		Pass
Lanthanum	0.01	ND	ND	ND		Pass
Terbium	0.01	ND	ND	ND		Pass

**16. EU- AP Resolution 2004(5) -Overall Migration**

- With reference to EN1186-1:2002 for selection of test methods;  
EN1186-3:2002 aqueous food simulants by total immersion method;
- Sample 005 Migration ratio: 140ml/0.87dm<sup>2</sup>

Simulant(s) Used	Test Condition	Overall Migration Result(s) [mg/dm <sup>2</sup> ]	Maximum Permissible Limit [mg/dm <sup>2</sup> ]	Conclusion
		005		
3% Acetic acid	70°C for 2 hours	<3.0	10	Pass
50% Ethanol	70°C for 2 hours	<3.0	10	Pass

**17. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific migration of 2,2,4,4-Tetramethylcyclobutane-1,3 diol (TMCD)**

- With reference to EN 13130-1:2004, followed by GC-MS.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	011		
Specific migration of 2,2,4,4-Tetramethylcyclobutane-1,3 diol (TMCD) -1 <sup>st</sup> Migration	<2	5	Pass
Specific migration of 2,2,4,4-Tetramethylcyclobutane-1,3 diol (TMCD) -2 <sup>nd</sup> Migration	<2	5	Pass
Specific migration of 2,2,4,4-Tetramethylcyclobutane-1,3 diol (TMCD) -3 <sup>rd</sup> Migration	<2	5	Pass

**18. EU-Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments - Specific migration of trimellitic anhydride (expressed as trimellitic acid)**

- With reference to EN 13130-1:2004.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	011		
Specific migration of trimellitic anhydride (expressed as trimellitic acid) -1 <sup>st</sup> Migration	<0.5	5	Pass
Specific migration of trimellitic anhydride (expressed as trimellitic acid) -2 <sup>nd</sup> Migration	<0.5	5	Pass
Specific migration of trimellitic anhydride (expressed as trimellitic acid) -3 <sup>rd</sup> Migration	<0.5	5	Pass

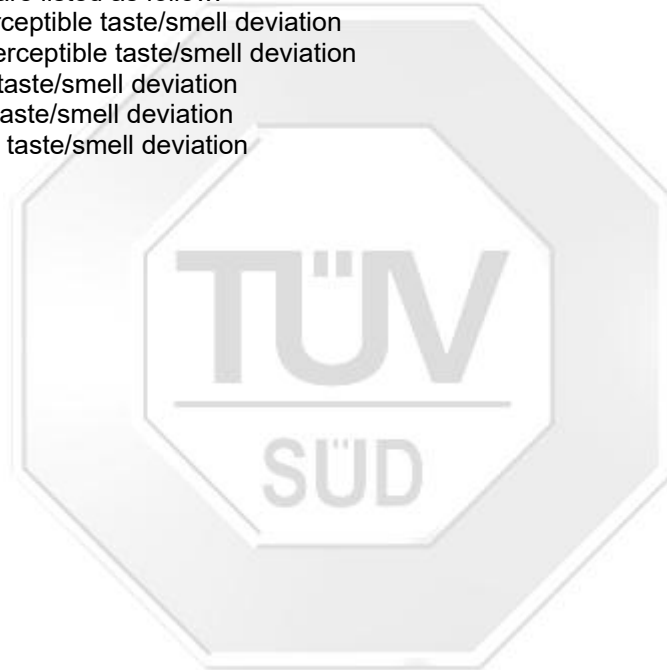
**19. Germany-German Food & Feed Acts LFGB Section 31 and BfR Recommendation-Sensory Test**

- With reference to DIN 10955:2004
- Test condition: Distilled water, 40°C for 24 hours

Sample(s)	Testing Parameter	Grading result(s)	Recommended level	Conclusion
A	Transfer of taste	1	<3	Pass
	Transfer of smell	1	<3	Pass

Sample(s)	Testing Parameter	Grading result(s)	Recommended level	Conclusion
B	Transfer of taste	1	<3	Pass
	Transfer of smell	1	<3	Pass

- Note: Available grading are listed as follow:
- Grading 0: No perceptible taste/smell deviation
  - 1: Just perceptible taste/smell deviation
  - 2: Weak taste/smell deviation
  - 3: Clear taste/smell deviation
  - 4: Strong taste/smell deviation



**20. Germany-German Food & Feed Acts LFGB Section 30 and Guideline of the EDQM Technical Document on metal and alloys -Extractable Heavy Metals**

- Test with reference to EN 13130-1:2004.
- Test condition: 0.5% Citric acid, 40°C for 24 hours

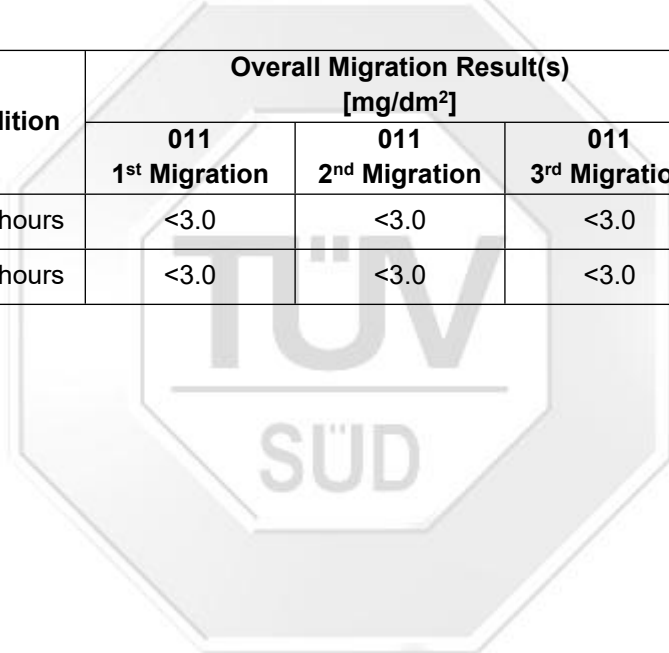
Test Item(s)	Result(s) [mg/kg]		Maximum Permissible Limit [mg/kg]*		Conclusion
	003				
	3 <sup>rd</sup> migration	1 <sup>st</sup> + 2 <sup>nd</sup> migration	3 <sup>rd</sup> migration	1 <sup>st</sup> + 2 <sup>nd</sup> migration	
Silver	<0.01	<0.02	0.08	0.56	Pass
Aluminium	<0.5	<1.0	5	35	Pass
Cobalt	<0.01	<0.02	0.02	0.14	Pass
Chromium	<0.02	<0.04	0.250	1.75	Pass
Copper	<0.2	<0.4	4	28	Pass
Iron	<1.0	<2.0	40	280	Pass
Magnesium	0.1	0.3	--	--	--
Manganese	<0.2	<0.4	1.8	12.6	Pass
Molybdenum	<0.01	<0.02	0.12	0.84	Pass
Nickel	<0.02	<0.04	0.14	0.98	Pass
Tin	<1.0	<2.0	100	700	Pass
Titanium	<0.05	<0.1	--	--	--
Vanadium	<0.01	<0.02	0.01	0.07	Pass
Zinc	<0.5	<1.0	5	35	Pass
Arsenic	<0.001	<0.002	0.002	0.014	Pass
Barium	<0.1	<0.2	1.2	8.4	Pass
Beryllium	<0.01	<0.02	0.01	0.07	Pass
Cadmium	<0.001	<0.002	0.005	0.035	Pass
Mercury	<0.001	<0.002	0.003	0.021	Pass
Lithium	<0.01	<0.02	0.048	0.336	Pass
Lead	<0.01	<0.02	0.010	0.07	Pass
Antimony	<0.01	<0.02	0.04	0.28	Pass
Thallium	<0.0001	<0.0002	0.0001	0.0007	Pass

**21. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Overall Migration**

- With reference to EN1186-1:2002 for selection of test methods;  
EN1186-3:2002 aqueous food simulants by total immersion method;  
EN1186-9:2002 aqueous food simulants by article filling method;
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Simulant(s) Used	Test Condition	Overall Migration Result(s) [mg/dm <sup>2</sup> ]			Maximum Permissible Limit [mg/dm <sup>2</sup> ]	Conclusion
		004 1 <sup>st</sup> Migration	004 2 <sup>nd</sup> Migration	004 3 <sup>rd</sup> Migration		
3% Acetic acid	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass
50% Ethanol	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass

Simulant(s) Used	Test Condition	Overall Migration Result(s) [mg/dm <sup>2</sup> ]			Maximum Permissible Limit [mg/dm <sup>2</sup> ]	Conclusion
		011 1 <sup>st</sup> Migration	011 2 <sup>nd</sup> Migration	011 3 <sup>rd</sup> Migration		
3% Acetic acid	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass
50% Ethanol	70°C for 2 hours	<3.0	<3.0	<3.0	10	Pass



**22. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine**

- With reference to EN 13130-1:2004, followed by Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II,XXI
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	Result(s) [mg/kg]	Method Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	004			
Specific migration of primary aromatic amines -1 <sup>st</sup> Migration	ND	0.01	ND	Pass
Specific migration of primary aromatic amines -2 <sup>nd</sup> Migration	ND	0.01	ND	Pass
Specific migration of primary aromatic amines -3 <sup>rd</sup> Migration	ND	0.01	ND	Pass

Test Item(s)	Result(s) [mg/kg]	Method Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	011			
Specific migration of primary aromatic amines -1 <sup>st</sup> Migration	ND	0.01	ND	Pass
Specific migration of primary aromatic amines -2 <sup>nd</sup> Migration	ND	0.01	ND	Pass
Specific migration of primary aromatic amines -3 <sup>rd</sup> Migration	ND	0.01	ND	Pass



**23. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Primary Aromatic Amine (29)**

- With reference to EN 13130-1:2004.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]		
					004 1 <sup>st</sup> Migration	004 2 <sup>nd</sup> Migration	004 3 <sup>rd</sup> Migration
1	4-Aminobiphenyl	92-67-1	0.002	0.002	ND	ND	ND
2	4,4'-Benzidine	92-87-5	0.002	0.002	ND	ND	ND
3	4-Chloro-2-methylaniline	95-69-2	0.002	0.002	ND	ND	ND
4	2-Naphthylamine	91-59-8	0.002	0.002	ND	ND	ND
5	o-Aminoazotoluene	97-56-3	0.002	0.002	ND	ND	ND
6	5-Nitro-o-toluidine	99-55-8	0.002	0.002	ND	ND	ND
7	4-Chloroaniline	106-47-8	0.002	0.002	ND	ND	ND
8	4-Methoxy-1,3-phenylenediamine	615-05-4	0.002	0.002	ND	ND	ND
9	Bis-(4-aminophenyl) methane	101-77-9	0.002	0.002	ND	ND	ND
10	3,3'-Dichlorobenzidine	91-94-1	0.002	0.002	ND	ND	ND
11	3,3'-Dimethoxybenzidine	119-90-4	0.002	0.002	ND	ND	ND
12	o-Tolidine	119-93-7	0.002	0.002	ND	ND	ND
13	3,3'-Dimethyl-4,4'-diaminadiphenylmethane	838-88-0	0.002	0.002	ND	ND	ND
14	2-Methoxy-5-methylaniline	120-71-8	0.002	0.002	ND	ND	ND
15	4,4'-Methylene bis(o-chloroaniline)	101-14-4	0.002	0.002	ND	ND	ND
16	4,4'-Oxydianiline	101-80-4	0.002	0.002	ND	ND	ND
17	4,4'-Thiodianiline	139-65-1	0.002	0.002	ND	ND	ND
18	o-Toluidine	95-53-4	0.002	0.002	ND	ND	ND
19	2,4-Diaminotoluene	95-80-7	0.002	0.002	ND	ND	ND
20	2,4,5-Trimethylaniline	137-17-7	0.002	0.002	ND	ND	ND
21	o-Anisidine	90-04-0	0.002	0.002	ND	ND	ND
22	4-Amino-azobenzene	60-09-3	0.002	0.002	ND	ND	ND
23	1,3-Phenylenediamine	108-45-2	0.002	0.002	ND	ND	ND
24	2,4-Dimethylaniline	95-68-1	0.002	0.002	ND	ND	ND
25	2,6-Dimethylaniline	87-62-7	0.002	0.002	ND	ND	ND
26	Aniline	62-53-3	0.002	0.002	ND	ND	ND
27	1,4-Phenylenediamine	106-50-3	0.002	0.002	ND	ND	ND
28	1,5-Diaminonaphthalene	2243-62-1	0.002	0.002	ND	ND	ND
29	2,6-toluenediamine	823-40-5	0.002	0.002	ND	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

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No.	Prohibited Amines	CAS No.	MDL [mg/kg]	Limit [mg/kg]	Result(s) [mg/kg]		
					011 1 <sup>st</sup> Migration	011 2 <sup>nd</sup> Migration	011 3 <sup>rd</sup> Migration
1	4-Aminobiphenyl	92-67-1	0.002	0.002	ND	ND	ND
2	4,4'-Benzidine	92-87-5	0.002	0.002	ND	ND	ND
3	4-Chloro-2-methylaniline	95-69-2	0.002	0.002	ND	ND	ND
4	2-Naphthylamine	91-59-8	0.002	0.002	ND	ND	ND
5	o-Aminoazotoluene	97-56-3	0.002	0.002	ND	ND	ND
6	5-Nitro-o-tolidine	99-55-8	0.002	0.002	ND	ND	ND
7	4-Chloroaniline	106-47-8	0.002	0.002	ND	ND	ND
8	4-Methoxy-1,3-phenylenediamine	615-05-4	0.002	0.002	ND	ND	ND
9	Bis-(4-aminophenyl) methane	101-77-9	0.002	0.002	ND	ND	ND
10	3,3'-Dichlorobenzidine	91-94-1	0.002	0.002	ND	ND	ND
11	3,3'-Dimethoxybenzidine	119-90-4	0.002	0.002	ND	ND	ND
12	o-Tolidine	119-93-7	0.002	0.002	ND	ND	ND
13	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.002	0.002	ND	ND	ND
14	2-Methoxy-5-methylaniline	120-71-8	0.002	0.002	ND	ND	ND
15	4,4'-Methylene bis(o-chloroaniline)	101-14-4	0.002	0.002	ND	ND	ND
16	4,4'-Oxydianiline	101-80-4	0.002	0.002	ND	ND	ND
17	4,4'-Thiodianiline	139-65-1	0.002	0.002	ND	ND	ND
18	o-Tolidine	95-53-4	0.002	0.002	ND	ND	ND
19	2,4-Diaminotoluene	95-80-7	0.002	0.002	ND	ND	ND
20	2,4,5-Trimethylaniline	137-17-7	0.002	0.002	ND	ND	ND
21	o-Anisidine	90-04-0	0.002	0.002	ND	ND	ND
22	4-Amino-azobenzene	60-09-3	0.002	0.002	ND	ND	ND
23	1,3-Phenylenediamine	108-45-2	0.002	0.002	ND	ND	ND
24	2,4-Dimethylaniline	95-68-1	0.002	0.002	ND	ND	ND
25	2,6-Dimethylaniline	87-62-7	0.002	0.002	ND	ND	ND
26	Aniline	62-53-3	0.002	0.002	ND	ND	ND
27	1,4-Phenylenediamine	106-50-3	0.002	0.002	ND	ND	ND
28	1,5-Diaminonaphthalene	2243-62-1	0.002	0.002	ND	ND	ND
29	2,6-toluenediamine	823-40-5	0.002	0.002	ND	ND	ND
<b>Conclusion</b>					<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

**24. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of Heavy Metals**

- With reference to EN 13130-1:2004, determination by ICP-MS.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 004 Migration ratio: 200ml/1.36dm<sup>2</sup>
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	MDL [mg/kg]	Result(s) [mg/kg]			Limit [mg/kg]	Conclusion
		004 1 <sup>st</sup> Migration	004 2 <sup>nd</sup> Migration	004 3 <sup>rd</sup> Migration		
Iron (Fe)	1.0	ND	ND	ND	48	Pass
Zinc (Zn)	1.0	ND	ND	ND	5	Pass
Copper (Cu)	0.5	ND	ND	ND	5	Pass
Manganese (Mn)	0.05	ND	ND	ND	0.6	Pass
Cobalt (Co)	0.05	ND	ND	ND	0.05	Pass
Barium (Ba)	0.1	ND	ND	ND	1	Pass
Lithium (Li)	0.1	ND	ND	ND	0.6	Pass
Aluminium (Al)	0.1	0.2	ND	ND	1	Pass
Nickel (Ni)	0.01	ND	ND	ND	0.02	Pass
Antimony (Sb)	0.01	ND	ND	ND	0.04	Pass
Arsenic (As)	0.01	ND	ND	ND	0.01	Pass
Cadmium (Cd)	0.002	ND	ND	ND	0.002	Pass
Chromium (Cr)	0.01	ND	ND	ND	0.01	Pass
Lead (Pb)	0.01	0.012	ND	ND	0.01	Pass
Mercury (Hg)	0.01	ND	ND	ND	0.01	Pass
Europium	0.01	ND	ND	ND	Sum 0.05	Pass
Gadolinium	0.01	ND	ND	ND		Pass
Lanthanum	0.01	ND	ND	ND		Pass
Terbium	0.01	ND	ND	ND		Pass

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Test Item(s)	MDL [mg/kg]	Result(s) [mg/kg]			Limit [mg/kg]	Conclusion
		011 1 <sup>st</sup> Migration	011 2 <sup>nd</sup> Migration	011 3 <sup>rd</sup> Migration		
Iron (Fe)	1.0	ND	ND	ND	48	Pass
Zinc (Zn)	1.0	ND	ND	ND	5	Pass
Copper (Cu)	0.5	ND	ND	ND	5	Pass
Manganese (Mn)	0.05	ND	ND	ND	0.6	Pass
Cobalt (Co)	0.05	ND	ND	ND	0.05	Pass
Barium (Ba)	0.1	ND	ND	ND	1	Pass
Lithium (Li)	0.1	ND	ND	ND	0.6	Pass
Aluminium (Al)	0.1	0.2	ND	ND	1	Pass
Nickel (Ni)	0.01	ND	ND	ND	0.02	Pass
Antimony (Sb)	0.01	ND	ND	ND	0.04	Pass
Arsenic (As)	0.01	ND	ND	ND	0.01	Pass
Cadmium (Cd)	0.002	ND	ND	ND	0.002	Pass
Chromium (Cr)	0.01	ND	ND	ND	0.01	Pass
Lead (Pb)	0.01	ND	ND	ND	0.01	Pass
Mercury (Hg)	0.01	ND	ND	ND	0.01	Pass
Europium	0.01	ND	ND	ND	Sum 0.05	Pass
Gadolinium	0.01	ND	ND	ND		Pass
Lanthanum	0.01	ND	ND	ND		Pass
Terbium	0.01	ND	ND	ND		Pass

**25. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol**

- With reference to EN 13130-1:2004.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	011		
Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol - 1 <sup>st</sup> Migration	<2	5	Pass
Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol - 2 <sup>nd</sup> Migration	<2	5	Pass
Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol - 3 <sup>rd</sup> Migration	<2	5	Pass

**26. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation and Commission Regulation (EU) 2020/1245 amending Regulation (EU) No 10/2011 and its amendments -Specific Migration of trimellitic anhydride**

- With reference to EN 13130-1:2004.
- Test condition: 3% Acetic acid, 40°C for 24 hours
- Sample 011 Migration ratio: 460ml/3.08dm<sup>2</sup>

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	011		
Specific Migration of trimellitic anhydride (as trimellitic acid) -1 <sup>st</sup> Migration	<0.5	5	Pass
Specific Migration of trimellitic anhydride (as trimellitic acid) -2 <sup>nd</sup> Migration	<0.5	5	Pass
Specific Migration of trimellitic anhydride (as trimellitic acid) -3 <sup>rd</sup> Migration	<0.5	5	Pass

**27. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Peroxide Value**

- With reference to Bundesgesundheitsbl. 40 (1997), 412

Test Item(s)	Result(s)	Maximum Permissible Limit	Conclusion
	004		
Peroxide Value	Absent	Absent	Pass

Test Item(s)	Result(s)	Maximum Permissible Limit	Conclusion
	005		
Peroxide Value	Absent	Absent	Pass

**28. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Total Chromium, Vanadium, Zirconium and Hafnium Content**

- Microwave digestion, followed by AAS or ICP analysis

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	004		
Chromium content	<2	10	Pass
Vanadium content	<15	20	Pass
Zirconium content	<15	100	Pass
Hafnium content	<15	100	Pass

**29. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Extractable Components**

- With reference to Bundesgesundheitsbl. 46(2003) 362

Simulant(s) Used	Test Condition	Result(s) [%]	Maximum Permissible Limit [%]	Conclusion
		005		
Distilled water	Reflux for 5 hours	<0.1	0.5	Pass
3% Acetic acid	Reflux for 5 hours	<0.1	0.5	Pass
10% Ethanol	Reflux for 5 hours	<0.1	0.5	Pass



**30. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Volatile Organic Matter**

- With reference to Bundesgesundheitsbl. 46 (2003) 362
- Test condition: 70°C for 2 hours

Test Item(s)	Result(s) [%]	Maximum Permissible Limit [%]	Conclusion
	005		
Volatile Organic Matter	<0.1	0.5	Pass

**31. Germany-German Food & Feed Acts LFGB Section 30 and BfR Recommendation-Total Platinum**

- Acid digestion, then followed by ICP-OES

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Conclusion
	005		
Total Platinum	<5	50	Pass

-End of Test Report-

