

Test Report

No.: 70.452.22.12067.01R1

Date: 2022-10-12

Applicant: POLYGROUP PACIFIC LTD
 Address: UNIT 606, 6TH FLOOR, FAIRMONT HOUSE, 8 COTTON TREE DRIVE, CENTRAL, HONG KONG
 Product Name: 36" SureStep Pool Ladder with Folding Steps/ P54360030
 42" SureStep Pool Ladder with Folding Steps/ P54420030
 48" SureStep Pool Ladder with Folding Steps/ P54480030
 52" SureStep Pool Ladder with Folding Steps/ P54520030
 Country of Origin: China
 Receipt Date of Sample: 2022-07-19, 2022-09-19
 Date of Testing: 2022-07-19 to 2022-08-26, 2022-09-19 to 2022-10-12
 Sample Submitted: The sample(s) was (were) submitted by applicant and identified.
 Test Result: Refer to the data listed in following pages

Remark: This report supersedes the previous report 70.452.22.12067.01

Test Item	Conclusion
1. EN 16582-1:2015+A1:2021 Domestic swimming pools Part 1: General requirements including safety and test methods for Ladder as per client's request	Pass
2. Total Cadmium Content Requirement in Annex XVII, Item 23 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
3. Total Lead Content Requirement in Annex XVII, Item 63 of the REACH Regulation(EC) No 1907/2006 with its Amendments	Pass
4. Organotin Content Requirement in Annex XVII, Item 20 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. Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs) Content - European Parliament and Council Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)	Pass
7. Screening of 224 Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) based on Regulation (EC) No.1907/2006 (REACH)	<0.1%(W/W)
Screening of 1 Substances of Public Consultation List of potential Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) based on Regulation (EC) No 1907/2006 concerning the REACH.	
8. Phthalates Test	Pass

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

Prepared by:



Jenny Yao
Technical Engineer



Authorized by:







Sawyer Tang
Technical Manager

Note:

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Description of the Tested Subject

Sample	Description	Photo
A	Pool Ladder (P54420030)	
B	Pool Ladder (P54360030)	
C	Pool Ladder (P54480030)	
D	Pool Ladder (P54520030)	

Note: Electronic version of the instruction and packaging for ladder was provided by the applicant for evaluation. Only English version was evaluated in this report.

Test Report**No.: 70.452.22.12067.01R1****Date: 2022-10-12**

T. No	Sample	Description
T1	002	White coating (frame)
T2	003	Black plastic (end of pole)
T3	004	Deep blue plastic (joint/ladder)
T4	005	Blue plastic (back of ladder)
T5	006	Deep blue soft plastic (pad)
T6	007	White paper sticker with black/orange printing/film (warning label)
T7	008	Metal without coating (frame)
T8	009	Silvery metal (screw)



Test Results

1. EN 16582-1:2015+A1:2021 Domestic swimming pools Part 1: General requirements including safety and test methods for Ladder as per client's request

Clause	Requirements	Result	Verdict										
4	General requirements and test methods												
4.1	General In use, installed according to the installation and commissioning manual, the swimming pool shall meet the requirements of this document. If the pool structure includes any water system covered by the EN 16713, the present document EN 16582 series shall be read in conjunction with the EN 16713 series. Assembled in accordance with the installation and commissioning manual, the electrical installation of any material related to the pool and its surrounding shall also comply with the requirements of HD EN 60364-7-702 or valid national requirements. When a membrane is used as a watertight system, it is not mandatory to have a minimum thickness; however any relevant standards shall apply if they exist. All manufacturers are required to carry out, either internally or via a test laboratory, the tests mentioned in section 4 for each new or revised material process.	-	NA										
4.2	Tolerances The indicated dimensions and measurements are given with a tolerance of $\pm 3\%$ (unless otherwise indicated).	Complied	P										
4.3	Water leakage Wherever possible, swimming pools should be built so that they are watertight, as leakage and other water losses may affect the building and surrounding properties. The maximum leakage is specified in Table 1. Table 1 - Watertightness classification <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Tightness Class</th> <th>Maximum leakage liter per m² per day or mm per day</th> </tr> </thead> <tbody> <tr> <td>W₀</td> <td>0</td> </tr> <tr> <td>W₁</td> <td>1</td> </tr> <tr> <td>W₂</td> <td>2</td> </tr> <tr> <td>W₃</td> <td>3</td> </tr> </tbody> </table>	Tightness Class	Maximum leakage liter per m ² per day or mm per day	W ₀	0	W ₁	1	W ₂	2	W ₃	3	-	NA
Tightness Class	Maximum leakage liter per m ² per day or mm per day												
W ₀	0												
W ₁	1												
W ₂	2												
W ₃	3												
4.4	Minimum performance requirements for structural materials												
4.4.1	General	-	NA										
4.4.2	Specific requirements and testing for corrosion resistance	Complied	P										
4.4.3	Osmosis resistance of composites and polymers	-	NA										
4.4.4	Wood	-	NA										
4.5	Injury risks												
4.5.1	Small elements, edges and corners												

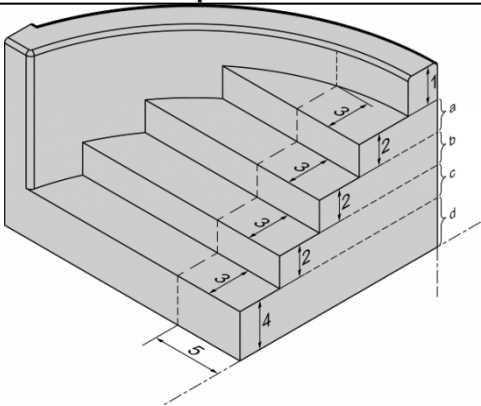
Clause	Requirements	Result	Verdict
	<p>When the swimming pool is being used, any protrusion on accessible parts liable to present a risk of injury shall be protected by a method which in order to be removed, requires the use of a tool or a minimum amount of force of 60N, with an accuracy of 2 N.</p> <p>During the installation, equipment made of wood, fiberglass, or other materials shall be free of splinters.</p> <p>Small accessible and graspable elements shall not fully enter into the small part template (EN 71-1) or they shall be fixed to the item to which they belong such that they cannot be detached under a force of 60 N, with an accuracy of 2 N, applied in any direction whatsoever.</p> <p>All edges, protruding parts and corners accessible without use of tools or minimum amount of force of 60N (±2N) shall be designed not to cause any injury. When necessary they shall be treated appropriately to remove this risk. For example, edges can be beveled or rounded, and surfaces shall be smooth and free from burrs.</p>	-	NA
4.5.2	Permissible openings		
4.5.2.1	Principle		
	<p>To prevent entrapment hazards inside the pool structure, accessible openings with the lowest point located beyond 500 mm below the water surface shall be restricted to the range of opening or gap size dimensions specified in 4.5.2.2 to 4.5.2.4, unless specifically permitted in other clauses/annexes of this standard and/or parts of this standard series.</p> <p>If the depth of penetration is less than 10mm, no requirements apply.</p>	-	NA
4.5.2.2	Finger and toe entrapment		
	Where there is a risk of finger or toe entrapment, the permissible opening shall be ≤ 8 mm or ≥ 25 mm.	-	NA
4.5.2.3	Head and neck entrapment		
	<p>Where there is a risk of head or neck entrapment, the permissible opening shall be ≤ 110 mm or ≥ 230 mm.</p> <p>Where an opening is ≥ 230 mm it should not permit passage to further entrapment hazards.</p> <p>Where there is a combination of risks, the lesser of the permitted opening sizes shall be used.</p>	-	NA
4.5.2.4	Other body entrapment		
	<p>Other permissible openings include the range between 25 mm and 110 mm. When such openings are used for construction or installation reasons, the installer shall alert their customer of a potential risk of entrapment.</p>	-	NA
4.6	Accessibility		
4.6.1	General		
	<p>The risk of drowning for children (especially under 5 years) is high and reasonably predictable, either during the bathing period or at other times. Therefore it is recommended for adult supervisors to:</p> <ul style="list-style-type: none"> - secure the means of access to the swimming pool; or - install a protection device; and - keep the children under constant supervision. <p>For pools relying on a specific means of egress such means shall not be removed when the pool is in use.</p>	-	NA
4.6.2	Safe access to the swimming pool		
	<p>The access to the above ground pools or partially buried pools (coming from outside to inside the pool) can be secured by using a safe access according to the requirements stated in § 5.4.4. Moreover the swimming pool shall be designed such that, once installed, unauthorized access to the pool for children (especially those under the age of five years) by striding over/climbing over is limited. The safe access to the basin is met when:</p> <ul style="list-style-type: none"> - the height between the highest bearing point (according to the 	-	NA

Clause	Requirements	Result	Verdict								
	<p>requirements stated in 5.5) and the upper level of the finished pool is greater than or equal to 1100 mm or;</p> <ul style="list-style-type: none"> the height between the ground and the lowest bearing point (according to the requirements stated in 5.5) is greater than or equal to 1100 mm, or; the height between two consecutive bearing points (according to the requirements stated in 5.5) is greater than 1100 mm. <p>If:</p> <ul style="list-style-type: none"> the above requirement is not satisfied and/or the means of access according to the requirements stated in 5.4.4 is not safe; or no means of access is provided with the swimming pool. <p>Then the manufacturer of the swimming pool shall recommend that the access to the finished swimming pool should be secured by a protection device to prevent children drowning.</p> <p>To prevent children drowning, inground pool manufacturers shall also recommend to secure the access to the finished pool with a protection device. The following warning "In order to prevent children from drowning, it is recommended to secure the access to the pool with a protection device" shall be present for the consumer in the information before purchase and in the safety instructions.</p>										
5	Requirements and test methods for means of access										
5.1	General										
	<p>All means of access shall fulfill the material requirements of clause 4.4, if applicable.</p> <p>Swimming pools intended solely for aboveground installation with a wall height exceeding 850 mm shall be installed with a means of access. When such mean of access is a pool ladder, then it shall meet the ladder design requirements in 5.4 and the safe access requirements in 4.6.</p> <p>Pools intended for multiple types of installation shall include a specification or recommendation for appropriate means of access.</p>	See Clause 4.4 and 5.4	P								
5.2	Slip resistance										
	<p>The slip resistance requirements only refer to walking surfaces of slopes, steps and treads located on the inner side of the basin, under the water line or not, and allowing the user to go down to the water.</p> <p>These requirements do not apply to:</p> <ul style="list-style-type: none"> slopes or steps that are not intended to enter the water; water slides; starting platforms; diving boards, or any similar equipment. <p>Requirements apply to slopes as a means of access with an inclination of more than 15°.</p> <p>If the slope declination is less than 15°, the requirements only apply from the water level to 600 mm depth.</p> <p>The walking surfaces of the relevant means of access have to comply with slip resistance requirements that shall be tested according to the Annex A of CEN/TS 16165. Rating groups are defined in below Table :</p> <table border="1"> <thead> <tr> <th>Rating group</th> <th>Critical angle (αbarefoot)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>12° ≤ αbarefoot < 18°</td> </tr> <tr> <td>B</td> <td>18° ≤ αbarefoot < 24°</td> </tr> <tr> <td>C</td> <td>24° ≤ αbarefoot</td> </tr> </tbody> </table> <p>The requirements for the different means of access are given in below Table:</p>	Rating group	Critical angle (αbarefoot)	A	12° ≤ αbarefoot < 18°	B	18° ≤ αbarefoot < 24°	C	24° ≤ αbarefoot	<p>Tested sample type: ladder tread</p> <p>No slipping was found while increasing the angle of the slope to be 18°.</p>	P
Rating group	Critical angle (αbarefoot)										
A	12° ≤ αbarefoot < 18°										
B	18° ≤ αbarefoot < 24°										
C	24° ≤ αbarefoot										

Clause	Requirements		Result	Verdict	
	Means	Minimum rating group			
	Treads of ladders	A			
	Steps	A			
	Slopes	B			
	<p>A higher rating group may be taken into account by the installer and/or retailer if the swimming pool is to be used by people with mobility issues.</p> <p>In case there are different walking surfaces on the same tread or step or slope, the choice will be possible between:</p> <ul style="list-style-type: none"> - testing each surface (if possible): each one shall comply independently with the standard; or - testing the whole surface as it is designed. 				
5.3	Crushing and entrapment hazards		Complied	P	
<p>When in use, movable parts of the ladder shall have no crushing and shearing points between the movable and/or rigid parts of the ladder, which can cause injury whilst stepping on it.</p> <p>If the use of the means of access creates a fall height of more than 600 mm above the floor inside and outside the pool, this can lead to a partial fall, resulting in a potential risk of strangulation, therefore the permissible openings shall be between 25 mm and 110 mm, or greater than 230 mm.</p>					
5.4	Ladders		See Appendix A	P	
5.4.1	Dimensions				
<p>The dimensional requirements relating to ladders are given in below table and in Figure 6, Figure 7, Figure 8a and Figure 8b in the EN16582-1:2005.</p>					
	Dimensions (in mm) or angle (°)	Minimum			Maximum
(a)	Usable distance between stiles	320			/
(b)	Platform depth	250			/
(c)	Cross-section of parts to be held				
	Grip (see Figure 1)	Shape inscribed in a \varnothing 25 circle			Shape inscribed in a \varnothing 50 circle
	Grasp (see Figure 2)	/			60
(d)	Stepping height between 2 treads	/			330
(e)	Entrapment space between 2 treads	> 45 and < 110 or > 230			/
(f)	Height of the 1st tread ^a in relation to the ground, outside of the pool	/			400
(g)	Difference between the wall height (including coping) and the height of the last tread for external ladders without platform.	/	150		
(h)	Difference between the pool wall height (including coping) and the height of the last tread for internal ladders.	150	300		
(i)	Height of the handrails in relation to the last tread or the platform or the top of the wall (including coping for internal ladders) ^c	400	/		
(j) ^b	Distance between the floor or lower base of the stabilizer and the 1 st tread ^a inside the pool	> 45 and < 110 or > 230			



Clause	Requirements			Result	Verdict	
	(k)	Angle of inclination of the legs in case of:				
		-detachable ladders	60	75		
		-fixed ladders (on the inside of the pool)	60	90		
		-fixed ladders (on the outside of the pool)	60	80		
	(l1)	Space between the submerged treads and the swimming pool wall for fixed ladders	0	8		
			25	110		
			230	270		
	(l2)	Space between the front edge of the coping and back edge of the top tread	11	11		
	(m)	Width of the treads ^c	36	/		
	(n)	Distance between the ladder bar and the pool wall.	0	8		
25			110			
230			/			
^a Stabilizers resting on the ground are not considered as treads. ^b Both configurations are acceptable depending on the choice. ^c Depending on the capacity of the user, this distance could be increased.						
5.4.2	Load-bearing strength			Test load: 1500 N No permanent deformation greater than 1% was found after the test.	P	
Apply a minimum force of 1500 N vertically to the centre of the most unfavorable tread for 5 min. Then apply the same force successively to the centre of the platform, if one exists. The test shall be performed over a surface area of 100 mm x 100 mm. No permanent deformation greater than 1% in relation to the length measured between the stiles shall be observed. Take the measurement within the minute following removal of the force.						
5.4.3	Test for lateral stability of removable ladders			Not tip over	P	
Place the ladder on a plane inclined by 10° in relation to the horizontal, on completion of this test, the ladder shall not tip over. This test does not apply to embedded or fixed ladders.						
5.4.4	Specific requirements for secured access points to enter the pool			Visible marking was provided properly on the ladder and proper instruction information was indicated in the manual. One manual action with a force more than 50 N to release the unlocking system.	P	
To meet the requirements in 4.6, the secured means of access to the pool shall comply with the following requirements: When the means of access is in a secured position, the height between the lowest bearing point of the means of access and the ground shall be greater than or equal to 1100 mm. A visible marking in usage position reminding that the outer leg shall be removed, or retracted, or lifted after use shall be provided with each secured means of access. To prevent the risk of unlocking in safe position by children under the age of five years or an unintentional unlocking, the unlocking system shall require at least one manual action with a minimum force of 50 N (applied at the farthest point from the axis for the rotating parts) to be released or depending on the choice: <ul style="list-style-type: none"> - require at least two consecutive actions on the unlocking system to release it, the second being dependent on the first, which is performed and maintained; or - require two separate but simultaneous actions working according to different principles; or 						

Clause	Requirements	Result	Verdict																								
	<ul style="list-style-type: none"> comprise two unlocking devices at least 1 000 mm away from one another and which shall be activated simultaneously; or be inaccessible to a child under the age of five with an unlocking system at an extended length greater than 1500 mm (measurement taken from the ground outside of the protected area). <p>The use of tools such as a token, a key, a magnetic card, etc. is not considered as being an action as defined above.</p>																										
5.4.4.2	Ladders with lifting access																										
	For ladders that can be lifted, provide a blocking device to maintain the ladders in high position. The locking in high position shall be automatic and signaled in a visible or audible manner.	Cannot be lifted	NA																								
5.4.4.3	Ladders with retractable access																										
	If the outer leg is retractable, this leg or the device that allows the ladder to be retracted shall withstand, in safe position, a tensile pulling force of 100 N, in the direction of separation of the elements.	Not retractable	NA																								
5.4.4.4	Means of access to the deck (ladder or stairs)																										
	In the case of aboveground swimming pools fitted with a deck, the means of access to the deck shall be detachable or designed so as to meet at least one of the requirements described in 5.4.4.2 (ladders with lifting access) or 5.4.4.3 (ladders with retractable access).	No deck	NA																								
5.4.5	Other requirements																										
	<p>The treads shall not be able to rotate around their axis.</p> <p>Ladders inside the swimming pool shall be equipped with handrails, separated or not from the ladder vertical side supports.</p> <p>Ladders whose legs have an angle of inclination greater than 75° shall be embedded or fixed.</p>	Treads cannot be rotatable. Handrail was provided. Inclination angle of the leg is less than 75°.	P																								
5.5	Bearing points	-	NA																								
5.6	Submerged stairs																										
5.6.1	General																										
	The dimensional requirements relating to submerged stairs are given in below Table and in Figure 13.	No such design	NA																								
	<table border="1"> <thead> <tr> <th></th> <th>Dimensions (in mm)</th> <th>Minimum</th> <th>Maximum</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>Height from the pool surround to the first step</td> <td>/</td> <td>400^a</td> </tr> <tr> <td>(2)</td> <td>Height between 2 steps</td> <td>/</td> <td>300</td> </tr> <tr> <td>(3)</td> <td>Step depth (Regardless of the shape of the step / See also dimension 5)</td> <td>210 (Absolute minimum), recommended 250</td> <td>/</td> </tr> <tr> <td>(4)</td> <td>Height from the last step to the pool bottom</td> <td>/</td> <td>/</td> </tr> <tr> <td>(5)</td> <td>Step width on both side of the stair centre line with the required step depth (See dimension 3)</td> <td>160</td> <td>/</td> </tr> </tbody> </table>		Dimensions (in mm)	Minimum	Maximum	(1)	Height from the pool surround to the first step	/	400 ^a	(2)	Height between 2 steps	/	300	(3)	Step depth (Regardless of the shape of the step / See also dimension 5)	210 (Absolute minimum), recommended 250	/	(4)	Height from the last step to the pool bottom	/	/	(5)	Step width on both side of the stair centre line with the required step depth (See dimension 3)	160	/		
	Dimensions (in mm)	Minimum	Maximum																								
(1)	Height from the pool surround to the first step	/	400 ^a																								
(2)	Height between 2 steps	/	300																								
(3)	Step depth (Regardless of the shape of the step / See also dimension 5)	210 (Absolute minimum), recommended 250	/																								
(4)	Height from the last step to the pool bottom	/	/																								
(5)	Step width on both side of the stair centre line with the required step depth (See dimension 3)	160	/																								
	^a Where the height between the top step and the walkable surface area is higher than 400mm then a handrail shall be installed. This maximum height shall be ≤ 450mm (without tolerances).																										

Clause	Requirements	Result	Verdict
	 <p>Stairs installed in a pool area with a depth greater than or equal to 1300mm shall have a minimum of 3 internal steps excluding the walkable surface and the pool bottom.</p> <p>A bench seat or a sitting area is not considered as a means of access. However, where a bench seat is used as a means of access to and from the pool, it has to fulfill the requirements of this clause.</p> <p>The installation and bracing instructions shall be supplied with stairs. The constituent material or coating of the stairs shall allow easy maintenance.</p>		
5.6.2	<p>Built-in stairs Built-in stairs that are part of the swimming pool structure shall conform to the general characteristics as defined in 4.4 and 5.4.2.</p>	No such design	NA
5.6.3	<p>Fitted stairs Stairs fitted inside the volume formed by the wall shall comprise a means of fastening that guarantees perfect stability and shall not affect the general characteristics as defined in 4.4 and 5.4.2.</p>	No such design	NA
5.7	<p>Handrails If a handrail is installed, the cross section of parts designed to be gripped can be round, oval, a rounded rectangular or elliptical and shall be between 25 mm and 50 mm.</p>	Complied	P
6	<p>Instructions for the consumer</p>		
6.1	<p>General principles All documents shall contain:</p> <ul style="list-style-type: none"> the following statement: "Please read carefully and keep for future reference"; the information to identify the model of the basin, swimming pool or swimming pool kit to which the document relates; the name and contact information of the person responsible for placing the product on the market (manufacturer, distributor or importer). <p>All instructions shall be legible, clear, comprehensible to the buyer and written in official national languages where the product is sold.</p> <p>When the instructions contain several pages, the manuals shall be document with numbered pages.</p> <p>The cautions and warnings shall be highlighted.</p> <p>Illustrations, if any, shall be placed such that they can be seen while the text referring to them is being read.</p> <p>The visuals shall not contradict the requirements included in this document. Where it is not specified in other rules and/or it does not conflict with existing regulations, the manufacturer's instructions need to be considered.</p>	Complied	P
6.2	<p>Self-built/installed pools</p>		
6.2.1	<p>Point-of-purchase information</p>		

Clause	Requirements	Result	Verdict
	To allow the buyer to make a choice, the point-of-purchase information shall indicate the following at least:		
	the reference to this document and its following parts if applicable;	-	NA
	the kit type: "Inground or aboveground or recessed swimming pool kit";	-	NA
	the commercial name or reference;	-	NA
	the dimension of the water body;	-	NA
	the maximum effective water depth;	-	NA
	the maximum total overall dimension;	-	NA
	the effective volume of water;	-	NA
	all indications regarding the construction of reinforcement works related to the kit type;	-	NA
	the composition of the swimming pool kit (examples: pool structure, ladder, filtration system, etc.);	-	NA
	the number of people required for the installation;	-	NA
	the approximate time required to install the swimming pool kit, excluding earthworks and filling;	-	NA
	the warranty period(s) of the provided elements of the swimming pool kit;	-	NA
	the following or equivalent warning: "The use of a swimming pool implies compliance with the safety instructions described in the operating and maintenance guide. In order to prevent drowning or other serious injuries, pay particular attention to the possibility of unexpected access to the swimming pool by children under 5 years by securing the access to it, and, during the bathing period, keep them under constant adult supervision";	-	NA
	the tightness class	-	NA
	awareness of the risk of drowning in the swimming pool;	-	NA
	adult supervision of children;	-	NA
	awareness of the risk of diving, if applicable.	-	NA
	The seller shall indicate to the purchaser that they should consult the local building code for any applicable installation requirements.	-	NA
6.2.2	Installation and commissioning manual		
	The installation and commissioning manual shall contain all of the information necessary for a correct and complete installation, and in particular the following information:		
	ground preparation including, if appropriate, specific recommendations concerning the type of soil;	-	NA
	the number of people required for the installation;	-	NA
	the approximate time required for the entire installation, excluding earthworks and filling;	-	NA
	the list of all of the parts and the description of the installation phases in chronological order;	-	NA
	the list of the tools required for the installation and of the materials complementary to the installation of the swimming pool kit as well as their use;	-	NA
	the address or telephone number where the consumer can obtain additional information during the installation of the swimming pool kit, in the event of problems;	-	NA
	all of the structural works necessary for the proper construction of the structure.	-	NA
6.2.3	Operating and maintenance manual		
	The swimming pool kit shall be accompanied by an operating and maintenance manual. These manuals shall contain all the information necessary for a correct use of the pool structure.	-	NA
	The operating and maintenance manual shall also contain:		
	the safety instructions	-	NA
	recommendations concerning the filling level;	-	NA
	if appropriate, recommendations concerning the need to monitor bolts and screws; splinters or any sharp edges;	-	NA

Clause	Requirements	Result	Verdict
	a warning about the hazards resulting from complete emptying of the basin;	-	NA
	recommendations on winterizing and long-term storage;	-	NA
	irrespective of materials used for swimming pool construction, accessible surfaces have to be checked regularly to avoid injuries.	-	NA
	More detailed information may be provided with each element of the swimming pool kit	-	NA
6.3	Constructed / installed pools by professionals		
6.3.1	Point-of-purchase information		
	To allow the buyer to make a choice, the point-of-purchase information shall indicate the following at least:		
	the reference to this document and its following parts if applicable;	-	NA
	the commercial name or reference;		
	the dimension of the water body;		
	the maximum effective water depth;		
	the maximum total overall dimension;		
	the effective volume of water;		
	the warranty period(s) of the installed products;		
	the following or equivalent warning: "In order to prevent drowning and other serious injuries:		
	The use of a pool implies compliance with the safety instructions described in the operating and maintenance guide.		
	Pay particular attention to the possibility of unexpected access to the swimming pool by children under 5 years by securing the access to it.		
	During the bathing period, keep them under constant adult supervision.		
	the tightness class.		
6.3.2	Operating and maintenance manual		
	The swimming pool shall be accompanied by an operating and maintenance manual. These manuals shall contain the information necessary for the correct use of the pool structure. The operating and maintenance manual shall also contain:	-	NA
	the safety instructions;		
	recommendations concerning the filling level;		
	if appropriate, recommendations concerning the need to monitor bolts and screws; splinters or any sharp edges;		
	a warning about the hazards resulting from complete emptying of the basin;		
	recommendations on winterizing and long-term storage.		
6.4	Means of access		
6.4.1	Point-of-purchase information		
	if the means of access is sold alone (not included in the swimming pool kit), the point-of-purchase information specific to the means of access shall indicate at least the following, in order to allow the buyer to make a choice:		
	the reference to this document;	Complied	P
	the type of means of access, e.g.: secured means of access or unsecured means of access.	Complied	P
	the commercial name or reference;	Complied	P
	illustrations repeating the overall dimensions of the product;	Complied	P
	stepping height and width of the wall, if appropriate;	Complied	P
	if appropriate, any indication concerning the construction of onsite reinforcement works for installing the means of access;	-	NA
	the warranty period(s) of the means of access.	Complied	P
	A handrail may be proposed with the means of access in case of use by people with mobility issues.	Complied	P
6.4.2	Operating and maintenance manual		
	The operating and maintenance manual of the means of access, if supplied alone, shall contain at least the		

Clause	Requirements	Result	Verdict
	following information:		
	the instructions regarding the winterizing of the means of access itself;	Complied	P
	an indication of the maximum allowable weight;	Complied	P
	a clarification on the fact that the means of access shall not be used for other purposes;	Complied	P
	if appropriate, recommendations concerning the need to monitor bolts and screws, splinters or any sharp edges.	Complied	P
7	Safety signage		
	<p>All swimming pools (whether manufactured or constructed) shall be provided with:</p> <ul style="list-style-type: none"> – the safety sign in Figure 15 and/or the following text: " Keep children under supervision in the aquatic environment ", and – the safety sign in Figure 16 and/or the following text: "No diving" where applicable. <p>Instructions shall be given to affix the safety sign on the pool and/or the text within 2000 mm of the pool in a prominent visible position.</p> <div style="text-align: center;">  <p>Figure 15 — safety sign – ISO 20712-1 – WSM002, Keep children under supervision in the aquatic environment</p>  <p>Figure 16 — Safety sign ISO 20712-1 - WSP005, No diving</p> </div>	-	NA

Abbreviation:

P = Pass, F = Fail, NA = Not Applicable, NR = Not Requested.

Appendix A:

	P54420030	P54360030	P54480030	P54520030
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a	340mm	340mm	340mm	340mm
c	26.2mm	26.1mm	25.8mm	25.9mm
d	310mm	280mm	280mm	300mm
e	284mm	252mm	250mm	275mm
f	325mm	275mm	275mm	300mm
g	Max:108mm	Max:150mm	Max:150mm	Max:150mm
i	540mm	630mm	530mm	530mm
j	293mm	245mm	245mm	275mm
k	74.1°	72.90°	74.0°	74.7°
m	70mm	70mm	70mm	70mm



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

Test with reference to EN 1122:2001 Method B, determination by ICP-OES

Sample	Unit	MDL	Limit	Result(s)	Conclusion
002	mg/kg	10	1000	<10.0	Pass
003+004+005	mg/kg	10	100	<10.0	Pass
006	mg/kg	10	100	<10.0	Pass
007	mg/kg	10	100	<10.0	Pass

3. 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
002	mg/kg	10	500	<10.0	Pass
003+004+005	mg/kg	10	500	<10.0	Pass
006	mg/kg	10	500	73.0	Pass
007	mg/kg	10	500	<10.0	Pass
008	mg/kg	10	500	<10.0	Pass
009	mg/kg	10	500	<10.0	Pass

4. 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.

Parameter	Unit	MDL	Limit	Result(s)	
				002	003+004+005
DBT	mg/kg	0.025	1000	<0.025	<0.025
TBT	mg/kg	0.025	1000	<0.025	<0.025
DOT	mg/kg	0.025	1000	0.031	<0.025
TcyT	mg/kg	0.025	1000	<0.025	<0.025
TPhT	mg/kg	0.025	1000	<0.025	<0.025
Conclusion				Pass	Pass

Parameter	Unit	MDL	Limit	Result(s)
				006
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
Conclusion				Pass

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 2019:01PAK, determination by GC-MS.

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					002	003+004+005
Benzo[b]fluoranthene (BbFA)	205-99-2	mg/kg	0.1	0.5	<0.1	<0.1
Benzo[a]anthracene (BaA)	56-55-3	mg/kg	0.1	0.5	<0.1	<0.1
Benzo[a]pyrene (BaP)	50-32-8	mg/kg	0.1	0.5	<0.1	<0.1
Benzo[e]pyrene (BeP)	192-97-2	mg/kg	0.1	0.5	<0.1	<0.1
Benzo[j]fluoranthene (BjFA)	205-82-3	mg/kg	0.1	0.5	<0.1	<0.1
Benzo[k]fluoranthene (BkFA)	207-08-9	mg/kg	0.1	0.5	<0.1	<0.1
Chrysene (CHR)	218-01-9	mg/kg	0.1	0.5	<0.1	<0.1
Dibenzo[a,h]anthracene (DBAhA)	53-70-3	mg/kg	0.1	0.5	<0.1	<0.1
Conclusion					Pass	Pass

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

6. Alkanes C10-C13, chloro (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, determination by GC-MS-NCI.

Compound	CAS No.	Unit	MDL	Limit	Result(s)	
					002	003+004+005
SCCP	85535-84-8	mg/kg	200	1500	<200	<100
Conclusion					Pass	Pass

Compound	CAS No.	Unit	MDL	Limit	Result(s)	
					006	007
SCCP	85535-84-8	mg/kg	100	1500	<100	<100
Conclusion					Pass	Pass

7. Screening of 224 Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) based on Regulation (EC) No.1907/2006 (REACH)

Screening of 1 Substances of Public Consultation List of potential Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) based on Regulation (EC) No 1907/2006 concerning the REACH.

Test with reference to in house method, determination by ICP, UV-VIS, GC-MS and LC-MS.

Item No.	Tested Items	CAS No.	MDL [% w/w]	Concentration [% w/w]	Classification
				002+003+004+005+006+007	
-	All tested SVHC in candidate list	-	0.01	<0.01	-
-	Resorcinol	108-46-3	0.01	<0.01	Endocrine disrupting properties (Article 57(f) - human health)

Item No.	Tested Items	CAS No.	MDL [% w/w]	Concentration [% w/w]	Classification
				008+009	
1	Cobalt dichloride **	7646-79-9	0.01	NA	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
2	Cobalt(II) carbonate**	513-79-1	0.01	NA	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
3	Cobalt(II) diacetate**	71-48-7	0.01	NA	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
4	Cobalt(II) dinitrate**	10141-05-6	0.01	NA	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
5	Cobalt(II) sulphate**	10124-43-3	0.01	NA	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
-	Other substances SVHC in candidate list	-	0.01	<0.01	-
-	Resorcinol	108-46-3	0.01	<0.01	Endocrine disrupting properties (Article 57(f) - human health)

Remark:

- The table above only shows detected SVHC, and SVHC that below MDL are not reported. Please refer to Appendix for the full list of tested SVHC.
- ** The substances are tested in terms of its respective elements and the test result is based on the calculation of selected elements/marker(s) and to the worst-case scenario. Calculated concentration of boric and arsenic compounds are based on the water extractive boron and arsenic. Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain.

3. ## The substances are UVCB(substance of unknown or variable composition, complex reaction products or biological materials), which are identified by it main constituents. Individual concentrations to the constituent of UVCB with an amount of <0.01% were not considered by the calculation of the sum. Calculation is based on the worst-case scenario. Due to the UVCB nature the reported values may be regarded as semi-quantitative.
4. # only applicable with $\geq 0.1\%$ of Michler's ketone (CAS No. 90-94-8) or Michler's base (CAS No. 101-61-1)
5. TGIC is a mixture and also contains β -TGIC. According to ECHA's technical dossier the ratio of β -TGIC to TGIC is around 1 to 10. Therefore β -TGIC is issued based on the above-mentioned ratio.
6. The analysis of **224** SVHC and **1** public consultation list are done by currently available test & screening techniques against the SVHC candidate list published by European Chemical Agency (ECHA). Refer to http://echa.europa.eu/chem_data/candidate_list_table_en.asp for details.
7. In accordance with Regulation(EC) No 1907/2006, any producer or importer of substances, preparations and articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1), if both the following conditions are met:
 - (a) The substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year;
 - (b) The substance is present in those articles above a concentration of 0.1% weight by weight (w/w).
8. From 28 October 2008, EU & EEA suppliers whose goods contain substances on the Candidate List in a concentration above 0.1%(w/w) must provide sufficient information to their customers and on request to a consumer within 45 days of the receipt of this request. This information must ensure safe use of the article and, as a minimum, include the name of the substance.
9. NA = Upon further test verification on the specific detected element(s) of SVHC and also information provided from client, the possibility that the element(s) content originate from SVHC is very unlikely, even though their presence cannot be exclude entirely. It may be assumed that the detected element(s) have a non-SVHC source.

AppendixI

Item No.	Tested Items	CAS No.	Classification
1	Benzyl butyl phthalate (BBP)	85-68-7	Toxic for reproduction (article 57 c)
2	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	Toxic for reproduction (article 57 c)
3	Dibutyl phthalate (DBP)	84-74-2	Toxic for reproduction (article 57 c)
4	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	Carcinogenic (article 57 a)
5	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	vPvB (article 57 e)
6	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	PBT and vPvB (articles 57 d and 57 e)
7	Cobalt Dichloride**	7646-79-9	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
8	Hexabromocyclododecane (HBCDD)	25637-99-4/ 3194-55-6	PBT (article 57 d)
9	Sodium dichromate, dihydrate**	7789-12-0/ 10588-01-9	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
10	Anthracene	120-12-7	PBT (article 57 d)
11	Lead hydrogen arsenate**	7784-40-9	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
12	Bis(tributyltin)oxide (TBTO)**	56-35-9	PBT (article 57 d)
13	Diarsenic pentaoxide**	1303-28-2	Carcinogenic (article 57 a)
14	Diarsenic trioxide**	1327-53-3	Carcinogenic (article 57 a)
15	Triethyl arsenate**	15606-95-8	Carcinogenic (article 57 a)
16	2,4-Dinitrotoluene	121-14-2	Carcinogenic (article 57 a)
17	Anthracene oil##	90640-80-5	Carcinogenic, PBT and vPvB (articles 57 a, 57 d and 57 e)
18	Anthracene oil, anthracene paste, distn, lights##	91995-17-4	Carcinogenic, mutagenic, PBT and vPvB (articles 57 a, 57 b, 57 d and 57 e)

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19	Anthracene oil, anthracene paste, anthracene fraction ^{##}	91995-15-2	Carcinogenic, mutagenic, PBT and vPvB (articles 57 a, 57 b, 57 d and 57 e)
20	Anthracene oil, anthracene-low ^{##}	90640-82-7	Carcinogenic, mutagenic, PBT and vPvB (articles 57 a, 57 b, 57 d and 57 e)
21	Anthracene oil, anthracene paste ^{##}	90640-81-6	Carcinogenic, mutagenic, PBT and vPvB (articles 57 a, 57 b, 57d and 57 e)
22	Lead chromate ^{**}	7758-97-6	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
23	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) ^{**}	12656-85-8	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
24	Lead sulfochromate yellow (C.I. Pigment Yellow 34) ^{**}	1344-37-2	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
25	Diisobutyl phthalate (DIBP)	84-69-5	Toxic for reproduction (article 57c)
26	Tris(2-chloroethyl)phosphate	115-96-8	Toxic for reproduction (article 57c)
27	Pitch, coal tar, high temp. ^{##}	65996-93-2	Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e)
28	Acrylamide	79-06-1	Carcinogenic and mutagenic (articles 57 a and 57 b)
29	Trichloroethylene	79-01-6	Carcinogenic (article 57 a)
30	Boric acid ^{**}	10043-35-3/ 11113-50-1	Toxic for reproduction (article 57 c)
31	Disodium tetraborate, anhydrous ^{**}	1330-43-4/ 12179-04-3	Toxic for reproduction (article 57 c)
32	Tetraboron disodium heptaoxide, hydrate(calculatate as decahydrate) ^{**}	12267-73-1	Toxic for reproduction (article 57 c)
33	Sodium chromate ^{**}	7775-11-3	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
34	Potassium chromate ^{**}	7789-00-6	Carcinogenic and mutagenic (articles 57 a and 57 b)
35	Ammonium dichromate ^{**}	7789-09-5	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
36	Potassium dichromate ^{**}	7778-50-9	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
37	Cobalt(II) sulphate ^{**}	10124-43-3	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
38	Cobalt(II) dinitrate ^{**}	10141-05-6	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
39	Cobalt(II) carbonate ^{**}	513-79-1	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
40	Cobalt(II) diacetate ^{**}	71-48-7	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
41	2-Methoxyethanol	109-86-4	Toxic for reproduction (article 57c)

42	2-Ethoxyethanol	110-80-5	Toxic for reproduction (article 57c)
43	Chromium trioxide**	1333-82-0	Carcinogenic and mutagenic (articles 57 a and 57 b)
44	Acids generated from chromium trioxide and their oligomers: a. Chromic acid** b. Dichromic acid ** c. Oligomers of chromic acid and dichromic acid **	7738-94-5/ 13530-68-2	Carcinogenic (article 57a)
45	2-Ethoxyethyl acetate (2-EEA)	111-15-9	Toxic for reproduction (article 57c)
46	Strontium chromate**	7789-06-2	Carcinogenic (article 57a)
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	Toxic for reproduction (article 57c)
48	Hydrazine	7803-57-8 302-01-2	Carcinogenic (article 57a)
49	1-Methyl-2-pyrrolidone	872-50-4	Toxic for reproduction (article 57c)
50	1,2,3-Trichloropropane	96-18-4	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	Toxic for reproduction (article 57c)
52	1, 2-Dichloroethane	107-06-2	Carcinogenic (article 57 a)
53	2,2'-Dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	Carcinogenic (article 57 a)
54	2-Methoxyaniline, o-Anisidine	90-04-0	Carcinogenic (article 57 a)
55	4-tert-Octylphenol	140-66-9	Equivalent level of concern having probable serious effects to the environment (article 57 f)
56	Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight **	-	Carcinogenic (article 57a)
57	Arsenic acid **	7778-39-4	Carcinogenic (article 57 a)
58	Bis(2-methoxyethyl) ether	111-96-6	Toxic for reproduction (article 57 c)
59	Bis(2-methoxyethyl) phthalate	117-82-8	Toxic for reproduction (article 57 c)
60	Calcium arsenate**	7778-44-1	Carcinogenic (article 57 a)
61	Dichromium tris(chromate) **	24613-89-6	Carcinogenic (article 57 a)
62	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	Carcinogenic (article 57 a)
63	Lead diazide**	13424-46-9	Toxic for reproduction (article 57 c)
64	Lead dipicrate**	6477-64-1	Toxic for reproduction (article 57 c)
65	Lead styphnate **	15245-44-0	Toxic for reproduction (article 57 c)
66	N,N-dimethylacetamide (DMAC)	127-19-5	Toxic for reproduction (article 57 c)
67	Pentazinc chromate octahydroxide**	49663-84-5	Carcinogenic (article 57 a)
68	Phenolphthalein	77-09-8	Carcinogenic (article 57 a)
69	Potassium hydroxyoctaoxidizincatedichromate**	11103-86-9	Carcinogenic (article 57 a)
70	Trilead diarsenate**	3687-31-8	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

71	Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 , and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight **	-	Carcinogenic (article 57 a)
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	Toxic for reproduction (Article 57 c)
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	Toxic for reproduction (Article 57 c)
74	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol #	561-41-1	Carcinogenic (Article 57a)
75	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Carcinogenic (Article 57 a)
76	4-[4,4'-bis(dimethylamino)benzhydrylidene] cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride(C.I. Basic Violet 3)#	548-62-9	Carcinogenic (Article 57a)
77	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) #	2580-56-5	Carcinogenic (Article 57a)
78	Diboron trioxide	1303-86-2	Toxic for reproduction (Article 57 c)
79	Lead(II) bis(methanesulfonate)**	17570-76-2	Toxic for reproduction (Article 57 c)
80	Formamide	75-12-7	Toxic for reproduction (Article 57 c)
81	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	Carcinogenic (Article 57a)
82	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	Mutagenic (Article 57b)
83	α,α-Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)#	6786-83-0	Carcinogenic (Article 57a)
84	β-TGIC(1,3,5-tris[(2S and2R)-2,3-epoxypropyl] 1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	Mutagenic (Article 57b)
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	PBT (Article 57 d); vPvB (Article 57 e)
86	Pentacosafuorotridecanoic acid	72629-94-8	PBT (Article 57 d); vPvB (Article 57 e)
87	Tricosafuorododecanoic acid	307-55-1	vPvB (Article 57 e)
88	Henicosafuoroundecanoic acid	2058-94-8	vPvB (Article 57 e)
89	Heptacosafuorotetradecanoic acid	376-06-7	vPvB (Article 57 e)
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated-covering well-defined substances and UVCB substances, polymers and homologue	-	Equivalent level of concern – probable serious effects on the environment (Article 57 f)
91	4-Nonylphenol, branched and linear -substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	-	Equivalent level of concern – probable serious effects on the environment (Article 57 f)
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	Equivalent level of concern – probable serious effects on human health (Article 57 f)

93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7	Equivalent level of concern – probable serious effects on human health (Article 57 f)
94	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0 19438-60-9 48122-14-1 57110-29-9	Equivalent level of concern – probable serious effects on human health (Article 57 f)
95	Methoxy acetic acid	625-45-6	Toxic for reproduction (Article 57 c); equivalent level of concern - probable serious effects on human health and the environment (Article 57 f)
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Toxic for reproduction (Article 57 c)
97	Diisopentylphthalate (DIPP)	605-50-5	Toxic for reproduction (Article 57 c)
98	N-pentyl-isopentylphthalate	-	Toxic for reproduction (Article 57 c)
99	1,2-Diethoxyethane	629-14-1	Toxic for reproduction (Article 57 c)
100	N,N-dimethylformamide	68-12-2	Toxic for reproduction (Article 57 c)
101	Dibutyltin dichloride (DBT)	683-18-1	Toxic for reproduction (Article 57 c)
102	Acetic acid, lead salt, basic**	51404-69-4	Toxic for reproduction (Article 57 c)
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)**	1319-46-6	Toxic for reproduction (Article 57 c)
104	Lead oxide sulfate (basic lead sulfate)**	12036-76-9	Toxic for reproduction (Article 57 c)
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)**	69011-06-9	Toxic for reproduction (Article 57 c)
106	Dioxobis(stearato)trilead**	12578-12-0	Toxic for reproduction (Article 57 c)
107	Fatty acids, C16-18, lead salts**	91031-62-8	Toxic for reproduction (Article 57 c)
108	Lead bis(tetrafluoroborate)**	13814-96-5	Toxic for reproduction (Article 57 c)
109	Lead cyanamate**	20837-86-9	Toxic for reproduction (Article 57 c)
110	Lead dinitrate**	10099-74-8	Toxic for reproduction (Article 57 c)
111	Lead oxide (lead monoxide)**	1317-36-8	Toxic for reproduction (Article 57 c)
112	Lead tetroxide (orange lead)**	1314-41-6	Toxic for reproduction (Article 57 c)
113	Lead titanium trioxide**	12060-00-3	Toxic for reproduction (Article 57 c)
114	Lead Titanium Zirconium Oxide**	12626-81-2	Toxic for reproduction (Article 57 c)
115	Pentalead tetraoxide sulphate**	12065-90-6	Toxic for reproduction (Article 57 c)
116	Pyrochlore,antimony lead yellow**	8012-00-8	Toxic for reproduction (Article 57 c)
117	Silicic acid, barium salt, lead-doped**	68784-75-8	Toxic for reproduction (Article 57 c)
118	Silicic acid, lead salt**	11120-22-2	Toxic for reproduction (Article 57 c)
119	Sulfurous acid, lead salt, dibasic**	62229-08-7	Toxic for reproduction (Article 57 c)
120	Tetraethyllead**	78-00-2	Toxic for reproduction (Article 57 c)
121	Tetralead trioxide sulphate**	12202-17-4	Toxic for reproduction (Article 57 c)
122	Trilead dioxide phosphonate**	12141-20-7	Toxic for reproduction (Article 57 c)
123	Furan	110-00-9	Carcinogenic (Article 57a)
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	Carcinogenic (Article 57 a); Mutagenic (Article 57 b)
125	Diethyl sulphate	64-67-5	Carcinogenic (Article 57 a); Mutagenic (Article 57 b)
126	Dimethyl sulphate	77-78-1	Carcinogenic (Article 57 a)
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	Toxic for reproduction (Article 57 c)
128	Dinoseb	88-85-7	Toxic for reproduction (Article 57 c)
129	4,4'-methylenedi-o-toluidine	838-88-0	Carcinogenic (Article 57 a)
130	4,4'-oxydianiline and its salts	101-80-4	Carcinogenic (Article 57 a); Mutagenic (Article 57 b)
131	4-Aminoazobenzene	60-09-3	Carcinogenic (Article 57 a)
132	4-methyl-m-phenylenediamine	95-80-7	Carcinogenic (Article 57 a)
133	6-methoxy-m-toluidine	120-71-8	Carcinogenic (Article 57 a)

134	Biphenyl-4-ylamine	92-67-1	Carcinogenic (Article 57 a)
135	o-aminoazotoluene	97-56-3	Carcinogenic (Article 57 a)
136	o-Toluidine	95-53-4	Carcinogenic (Article 57 a)
137	N-methylacetamide	79-16-3	Toxic for reproduction (Article 57 c)
138	1-bromopropane; n-propyl bromide	106-94-5	Toxic for reproduction (Article 57 c)
139	Cadmium**	7440-43-9	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)
140	Cadmium oxide**	1306-19-0	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)
141	Dipentyl phthalate (DPP)	131-18-0	Toxic for reproduction (Article 57 c)
142	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-	Equivalent level of concern having probable serious effects to the environment (due to the endocrine disrupting properties of the degradation products) (Article 57 f)
143	Ammonium pentadecafluorooctanoate	3825-26-1	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
145	Cadmium sulphide**	1306-23-6	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)
146	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate)(C.I.Direct Red 28)	573-58-0	Carcinogenic (Article 57a)
147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate(C.I.Direct Black 38)	1937-37-7	Carcinogenic (Article 57a)
148	Dihexyl phthalate	84-75-3	Toxic for reproduction (Article 57 c)
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	Toxic for reproduction (Article 57 c)
150	Lead di(acetate) **	301-04-2	Toxic for reproduction (Article 57 c)
151	Trixylyl phosphate	25155-23-1	Toxic for reproduction (Article 57 c)
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Toxic for reproduction (Article 57 c)
153	Cadmium chloride**	10108-64-2	Carcinogenic (Article 57a); Mutagenic (Article 57(b)); Toxic for Reproduction (Article 57(c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
154	Sodium perborate; perboric acid, sodium salt	-	Toxic for reproduction (Article 57 c)
155	Sodium peroxometaborate	7632-04-4	Toxic for reproduction (Article 57 c)
156	Cadmium fluoride**	7790-79-6	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f)

157	Cadmium sulphate**	10124-36-4; 31119-53-6	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	PBT (Article 57 d); vPvB (Article 57 e)
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	PBT (Article 57 d); vPvB (Article 57 e)
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	Toxic for reproduction (Article 57 c)
161	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	Toxic for reproduction (Article 57 c)
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5, 68648-93-1 (271-094-0, 272-013-1)	Toxic for reproduction (Article 57 c)
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	-	vPvB (Article 57 e)
164	1,3-propanesultone	1120-71-4	Carcinogenic (Article 57 a)
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	vPvB (Article 57 e)
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	vPvB (Article 57 e)
167	Nitrobenzene	98-95-3	Toxic for reproduction (Article 57 c)
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptafluorononanoic acid and its sodium and ammonium salts)	375-95-1; 21049-39-8; 4149-60-4	Toxic for reproduction (Article 57 c);PBT (Article 57 d)
169	Benzo[a]pyrene	50-32-8	Carcinogenic (Article 57a) Mutagenic (Article 57b) Toxic for reproduction (Article 57c) PBT (Article 57d) vPvB (Article 57e)
170	4,4'-isopropylidenediphenol (Bisphenol A, BPA)	80-05-7	Toxic for reproduction (Article 57c) Endocrine disrupting properties (Article 57(f) - environment) Endocrine disrupting properties (Article 57(f) - human health)
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2, 3830-45-3, 3108-42-7	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
172	p-(1,1-dimethylpropyl)phenol (pentylphenol, PTAP)	80-46-6	Equivalent level of concern having probable serious effects to the environment (Article 57 f)

173	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB-and well-defined substances which include any of the individual isomers or a combination thereof]	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4	vPvB (Article 57e)
175	Benz[a]anthracene	56-55-3	Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e)
176	Cadmium carbonate**	513-78-0	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
177	Cadmium hydroxide**	21041-95-2	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
178	Cadmium nitrate**	10325-94-7	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
179	Chrysene	218-01-9	Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e)
180	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo [12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	vPvB (Article 57e)
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	Endocrine disrupting properties (Article 57(f) - environment)
182	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride) (TMA)	552-30-7	Respiratory sensitising properties (Article 57(f)) – human health
183	Dicyclohexyl phthalate (DCHP)	84-61-7	Toxic for reproduction (Article 57(c)); endocrine disrupting properties (Article 57(f) - human health)
184	Octamethylcyclotetrasiloxane (D4)	556-67-2	PBT (Article 57d) vPvB (Article 57e)
185	Decamethylcyclopentasiloxane (D5)	541-02-6	PBT (Article 57d) vPvB (Article 57e)
186	Dodecamethylcyclohexasiloxane (D6)	540-97-6	PBT (Article 57d) vPvB (Article 57e)
187	Lead**	7439-92-1	Toxic for reproduction (Article 57c)
188	Disodium octaborate**	12008-41-2	Toxic for reproduction (Article 57c)
189	Benzo[ghi]perylene	191-24-2	PBT (Article 57d) vPvB (Article 57e)
190	Terphenyl hydrogenated	61788-32-7	vPvB (Article 57e)

191	Ethylenediamine (EDA)	107-15-3	Respiratory sensitising properties (Article 57(f) - human health)
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	Toxic for reproduction (Article 57c)
193	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	Endocrine disrupting properties (Article 57(f) - environment)
194	Benzo[k]fluoranthene	207-08-9	Carcinogenic (Article 57a); PBT (Article 57d); vPvB (Article 57e)
195	Fluoranthene	206-44-0	PBT (Article 57d); vPvB (Article 57e)
196	Phenanthrene	85-01-8	vPvB (Article 57e)
197	Pyrene	129-00-0	PBT (Article 57d); vPvB (Article 57e)
198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment) Equivalent level of concern having probable serious effects to human health (Article 57(f) – human health)
199	2-methoxyethyl acetate	110-49-6	Toxic for reproduction (Article 57(c))
200	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	Endocrine disrupting properties (Article 57(f) – environment)
201	4-tert-butylphenol (PTBP)	98-54-4	Endocrine disrupting properties (Article 57(f) – environment)
202	Diisohexyl phthalate	71850-09-4	Toxic for reproduction (Article 57c)
203	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Toxic for reproduction (Article 57c)
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Toxic for reproduction (Article 57c)
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	Equivalent level of concern having probable serious effects on the environment (Article 57f) Equivalent level of concern having probable serious effects on human health (Article 57f)
206	1-vinylimidazole	1072-63-5	Toxic for reproduction (Article 57c)
207	2-methylimidazole	693-98-1	Toxic for reproduction (Article 57c)
208	Butyl 4-hydroxybenzoate	94-26-8	Endocrine disrupting properties (Article 57(f) – human health)
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	Toxic for reproduction (Article 57c)
210	Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	Toxic for reproduction (Article 57c)
211	Dioctyltin dilaurate, stannane, dioctyl-, bis(cocoacyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	Toxic for reproduction (Article 57c)

212	1,4-dioxane	123-91-1	Carcinogenic (Article 57a) Equivalent level of concern having probable serious effects on the environment (Article 57f) Equivalent level of concern having probable serious effects on human health (Article 57f)
213	2,2-bis(bromomethyl)propane 1,3-diol (BMP), 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo- 2,2-bis(bromomethyl)-1-propanol (TBNPA), 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0, 36483-57-5/ 1522-92-5, 96- 13-9	Carcinogenic (Article 57a)
214	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers	-	Toxic for reproduction (Article 57c)
215	4,4'-(1-methylpropylidene) bisphenol; (bisphenol B)	77-40-7	Endocrine disrupting properties (Article 57(f) - environment AND human health)
216	Glutaral	111-30-8	Respiratory sensitising properties (Article 57(f) - human health)
217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	-	PBT (Article 57d) vPvB (Article 57e)
218	Orthoboric acid, sodium salt	13840-56-7	Toxic for reproduction (Article 57c)
219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP)	-	Toxic for reproduction (Article 57c) Endocrine disrupting properties (Article 57(f) – human health) Endocrine disrupting properties (Article 57(f) – environment)
220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	-	Endocrine disrupting properties (Article 57(f) - human health)
221	Endocrine disrupting properties (Article 57(f) - human health)	119-47-1	Toxic for reproduction (Article 57c)
222	S-(tricyclo[5.2.1.0'2,6]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	PBT (Article 57 d)
223	Tris(2-methoxyethoxy)vinylsilane	1067-53-4	Toxic for reproduction (Article 57c)
224	N-(hydroxymethyl)acrylamide	924-42-5	Carcinogenic (Article 57a) Mutagenic (Article 57b)

Item No.	Tested Items	CAS No.	Classification
1	Resorcinol	108-46-3	Endocrine disrupting properties (Article 57(f) - human health)

8. Phthalates Test

Test with reference to EN 14372:2004.

Compound	CAS No.	Unit	MDL	Limit	Result(s)	
					002	003+004+005
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	-	<0.005	<0.005
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	-	<0.005	<0.005
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	-	<0.005	<0.005
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	-	<0.005	<0.005
Sum of DBP, BBP, DEHP, DIBP	-	%	0.005	0.1	<0.005	<0.005
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	-	<0.005	<0.005
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	-	<0.005	<0.005
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	-	<0.005	<0.005
sum of DINP, DIDP, DNOP	-	%	0.005	0.1	<0.005	<0.005
1,2-Benzenedicarboxylic acid,dipentylester branched and linear (DPP)	84777-06-0	%	0.005	-	<0.005	<0.005
1,2-Benzenedicarboxylicacid, di-C6-8-branched alkyl esters,C7-rich (DIHP)	71888-89-6	%	0.005	0.1	<0.005	<0.005
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	%	0.005	0.1	<0.005	<0.005
1,2-benzenedicarboxylic acid,di-C6-10-alkyl esters;1,2-benzenedicarboxylic acid,mixed decyl and hexyl and octyl diesters with≥0.3%of dihexyl phthalate	68515-51-5, 68648-93-1	%	0.005	0.1	<0.005	<0.005
Bis(2-methoxyethyl)phthalate (DMEP)	117-82-8	%	0.005	0.1	<0.005	<0.005
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	<0.005	<0.005
1,2-Benzenedicarboxylicacid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4	%	0.005	0.1	<0.005	<0.005
Di-iso-hexyl phthalate,DiHxP	71850-09-4	%	0.005	0.1	<0.005	<0.005
Diisopentyl phthalate (DiPP)	605-50-5	%	0.005	0.1	<0.005	<0.005
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	<0.005	<0.005
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	<0.005	<0.005
n-Pentyl-isopentylphthalate (nPiPP)	776297-69-9	%	0.005	0.1	<0.005	<0.005
Dipropylheptyl phthalate(DPHP)	53306-54-0	%	0.005	0.1	<0.005	<0.005
Conclusion					Pass	Pass

Test Report

No.: 70.452.22.12067.01R1

Date: 2022-10-12



Compound	CAS No.	Unit	MDL	Limit	Result(s)	
					006	007
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	-	<0.005	<0.005
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	-	<0.005	<0.005
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	-	<0.005	<0.005
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	-	<0.005	<0.005
Sum of DBP, BBP, DEHP, DIBP	-	%	0.005	0.1	<0.005	<0.005
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	-	<0.005	<0.005
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	-	<0.005	<0.005
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	-	<0.005	<0.005
sum of DINP, DIDP, DNOP	-	%	0.005	0.1	<0.005	<0.005
1,2-Benzenedicarboxylic acid,dipentylester branched and linear (DPP)	84777-06-0	%	0.005	-	<0.005	<0.005
1,2-Benzenedicarboxylicacid, di-C6-8-branched alkyl esters,C7-rich (DIHP)	71888-89-6	%	0.005	0.1	<0.005	<0.005
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	%	0.005	0.1	<0.005	<0.005
1,2-benzenedicarboxylic acid,di-C6-10-alkyl esters;1,2-benzenedicarboxylic acid,mixed decyl and hexyl and octyl diesters with≥0.3%of dihexyl phthalate	68515-51-5, 68648-93-1	%	0.005	0.1	<0.005	<0.005
Bis(2-methoxyethyl)phthalate (DMEP)	117-82-8	%	0.005	0.1	<0.005	<0.005
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	<0.005	<0.005
1,2-Benzenedicarboxylicacid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4	%	0.005	0.1	<0.005	<0.005
Di-iso-hexyl phthalate,DiHxP	71850-09-4	%	0.005	0.1	<0.005	<0.005
Diisopentyl phthalate (DiPP)	605-50-5	%	0.005	0.1	<0.005	<0.005
Di-n-hexyl phthalate (DHP)	84-75-3	%	0.005	0.1	<0.005	<0.005
Dipentyl phthalate (DPP)	131-18-0	%	0.005	0.1	<0.005	<0.005
n-Pentyl-isopentylphthalate (nPiPP)	776297-69-9	%	0.005	0.1	<0.005	<0.005
Dipropylheptyl phthalate(DPHP)	53306-54-0	%	0.005	0.1	<0.005	<0.005
Conclusion					Pass	Pass

Remark: 1. Limit was according to client's requirement
- End of Test Report -