

Report No. 报告号: 326038409b 001 Page 1 of 14 第1页,共 14页

EASCO ELECTRICAL (JIANG SU) CO,LTD. Client 客户:

Contact Information 联系方式: 亿思柯电气(江苏)有限公司

No.88 Chaoyang Road, Huiping Town, Qidong City, Jiangsu, P.R. China

江苏省启东市惠萍镇朝阳路88号

Identification/ PVC Marker Tube / PVC空白套管

Model No(s) 样品描述/规格: OMR

Sample obtaining method 样品获

取方式:

Sending by customer 客户寄样

Test item complete and undamaged. 样品完好无损

样品接收状态

Condition at delivery:

Sample Receiving date 收件日期: 2024-07-11

Testing Period 测试日期: 2024-07-11 to 2024-07-18

Chemical Laboratory Shanghai 上海化学实验室 Place of testing:测试地点

Test Specification 测试要求: Test result 测试结果:

Customer's requirement 客戶要求:

1. 1. Risk Assessment of Articles: Screening of substances of very high concern (SVHC) subject to the candidate list by European Chemical Agency (ECHA) according to Regulation (EC) No 1907/2006 and its amendments

SVHC concentration(s)

≤0.1%

产品风险评估:依据法规(EC) No 1907/2006及其修正案,筛检欧洲化学品管 理局(ECHA)候选清单中的高度关注物质。

For and on behalf of TÜV Rheinland (Shanghai) Co., Ltd.

Mia Shen / Project Engineer 2024-07-26 Name/Position 姓名/职位 Date 日期

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed. This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. For a test report to be used within Mainland of China which is not with CMA logo, then the reported results are used for research, teaching or internal quality control purposes and are for internal use only. This test report does not entitle to carry any safety mark on this or similar products. "Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

样品信息由客户提供。测试结果根据所做测试的种类和范围而得出。本测试报告仅对来样负责。未经本测试中心许可,测试报告不得部分复制。在中国境内使用的检测检验报告,如未加 盖CMA章,则报告结果作为科研、教学或内部质量控制之用,仅供内部使用。不能根据此报告在上述产品或类似产品上使用任何安全标志。本测试报告中,描述符合性声明所应用的判定规 则发布在我司官网 https://www.tuv.com/landingpage/en/gm-gcn/。



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## Material List 材料清单:

Item 项目: PVC Marker Tube / PVC空白套管

**OMR** 

Material No. 材料号	Material 材质	Color 颜色	Location 位置
B001	Plastic	white	refer to photo
B002	Plastic	yellow	refer to photo



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1. Screening of substances of very high concern (SVHC) subject to the candidate list by European Chemical Agency (ECHA) according to Regulation (EC) No 1907/2006 and its amendments. / 依 据Reach法规(EC) No 1907/2006及其修正案,筛检欧洲化学品管理局(ECHA) 候洗清单中的高度关 注物质。

Obligation of Importer is necessary if the detected SVHC concentration in article level is >0.1%: /如果在物品中检测到SVHC高度关注物质浓度大干0.1%则进口商有义务:

To communicate information down the supply chain according to article. 33 of Regulation (EC) No 1907/2006

/ 依照REACH法规第33条需要向供应链告知或者:

1. Notification to ECHA, if the quantities of SVHC in the produced/imported articles are above 1 ton in total per year per company.

/ 如果一家公司生产/进口的物品中检出的高度关注物质总量超过每年一吨,则需要向ECHA通报。

2. Provide sufficient information to ensure safe use of the article and, as a minimum, include the name of the substance, to their customers and on request to consumers within 45 days of the receipt of this request.

/ 向其客户提供足够的信息以确保安全使用该物品,信息至少包括物质名称,并应消费者要求,在收 到该要求45天内提供给他们。

Test Method

1) SVOC: organic solvent extraction, determination by GC-MS/ECD/

测试方法:

半挥发性有机物:有机溶剂萃取,气相质谱联用仪扫描法/气相色谱电子捕获检测器测定

2) VOC: organic solvent extraction, determination by GC-MS/ 挥发性有机物:有机溶剂萃取,气相质谱联用仪扫描法测定

3) VVOC: headspace-GC/MS analysis/

极易挥发性有机物:顶空-气相质谱联用仪扫描法分析

4) non-VOC: organic solvent extraction, determination by LC-MS/MS/ 非挥发性有机物,有机溶剂萃取,液相色谱-串联质谱扫描法测定

5) inorganics: acid digestion, determination by ICP-OES/ 无机物:酸消解,电感耦合等离子体发射光谱法分析测定

### **Test Result:** 测试结果:

Test No. 测试编号		Result (%) 测试结果
T001	B001 + B002	DBP=0.03%

**Abbreviation:** < = Less than

缩略语

RL = Reporting limit % = Percentage

< = 小于

RL = 表示报告检出限

% = 百分比



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## Remark:

(\*1) The reporting limit for each individual SVHC in Candidate List by ECHA: 欧洲化学品管理局候选清单中每个高度关注物质的报告检出限:

	Substances/物质	CAS No./ CAS号码	Reporting Limit/ 报告检出限
1	4,4'- Diaminodiphenylmethane (A9) / 4,4'-二胺基二苯甲烷	101-77-9	0.01%
2	Benzyl butyl phthalate (BBP) / 邻苯二甲酸丁酯苯甲酯	85-68-7	0.01%
3	Bis (2-ethylhexyl)phthalate (DEHP) / 邻苯二甲酸二(2 - 乙基己基)酯	117-81-7	0.01%
4	Dibutyl phthalate (DBP) / 邻苯二甲酸二丁基酯	84-74-2	0.01%
5	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane / 六溴环十二烷	25637-99-4 / 3194-55-6 / 134237-50-6 / 134237-51-7 / 134237-52-8	0.01%
6	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene) / 二甲苯麝香	81-15-2	0.01%
7	2,4-Dinitrotoluene (2,4-DNT) / 2,4 - 二硝基甲苯	121-14-2	0.01%
8	Diisobutyl phthalate (DIBP) / 邻苯二甲酸二异丁酯	84-69-5	0.01%
9	Tris(2-chloroethyl)phosphate (TCEP) / 三 (2 - 氯乙基) 磷酸酯	115-96-8	0.01%
10	Diarsenic pentaoxide (*2) / 五氧化二砷	1303-28-2	0.01%
11	Diarsenic trioxide (*2) / 三氧化二砷	1327-53-3	0.01%
12	Lead chromate (*2) (*3) 铬酸铅	7758-97-6	0.01%
13	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) (*2) (*3) / 颜料红104	12656-85-8	0.01%
14	Lead sulfochromate yellow (C.I. Pigment Yellow 34) (*2) / 颜料黄34	1344-37-2	0.01%
15	Trichloroethylene / 三氯乙烯	79-01-6	0.01%
16	Chromium trioxide (*2) / 三氧化铬	1333-82-0	0.01%
17	Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers/ 氧化铬及其聚合物形成的酸:Chromic acid, / 铬酸 Dichromic acid, / 重铬酸Oligomers of chromic acid and dichromic acid/ 重铬酸聚合物. (*2)	7738-94-5 / 13530-68-2	0.01%
18	Sodium dichromate) (*2) (*3) / 重铬酸钠水合物	7789-12-0 / 10588-01-9	0.01%
19	Potassium dichromate (*2) (*3) ) / 重铬酸钾	7778-50-9	0.01%
20	Ammonium dichromate (*2) (*3) ) / 重铬酸铵	7789-09-5	0.01%
21	Potassium chromate (*2) (*3) / 铬酸钾	7789-00-6	0.01%
22	Sodium chromate (*2) (*3) / 铬酸钠	7775-11-3	0.01%
23	Formaldehyde, oligomeric reaction products with aniline (technical MDA) (*10) / 甲醛苯胺聚合物	25214-70-4	0.01%
24	1,2-Dichloroethane (1,2-DCE) / 1,2-二氯乙烷	107-06-2	0.01%
25	Bis(2-methoxyethyl) ether (DEGDB) / 二乙二醇二甲醚	111-96-6	0.01%
26	Arsenic acid (*2) / 砷酸	7778-39-4	0.01%
27	2,2'-dichloro-4,4'-methylenedianiline (MOCA) / 4,4'-二氨基-3,3'-二氯二苯甲烷	101-14-4	0.01%
28	Dichromium tris(chromate) (*2) (*3) / 铬酸铬	24613-89-6	0.01%
29	Strontium chromate (*2) (*3) / 铬酸锶	7789-06-2	0.01%
30	Potassium hydroxyoctaoxodizincatedichromate (*2) (*3) / 氢氧化铬酸锌钾	11103-86-9	0.01%
31	Pentazinc chromate octahydroxide (*2) (*3) / 锌黄	49663-84-5	0.01%
32	1-bromopropane (n-propyl bromide) / 正丙基溴	106-94-5	0.01%
33	Diisopentylphthalate/ 邻苯二甲酸二异戊酯	605-50-5	0.01%
34	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) / 邻苯二甲酸二(C6-8支链与直 链)烷基酯,富C7	71888-89-6	0.01%



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35	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) / 1,2-苯二酸-二(C7-11支链与直链) 烷基(醇)酯	68515-42-4	0.01%
36	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear / 支链和直链1,2-苯二羧二戊酯	84777-06-0	0.01%
37	Bis(2-methoxyethyl) phthalate / 邻苯二甲酸二甲氧乙酯	117-82-8	0.01%
38	Dipentyl phthalate (DPP) / 邻苯二甲酸二戊酯	131-18-0	0.01%
39	N-pentyl-isopentylphthalate / 邻苯二甲酸正戊基异戊基酯	776297-69-9	0.01%
40	Anthracene oil (*6) / 蔥油	90640-80-5	0.01%(*7)
41	Pitch, coal tar, high temperature (*6) / 沥青,煤焦油,高温	65996-93-2	0.01%(*7)
42	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (OPEO) [covering well-defined substances and UVCB substances, polymers and homologues] / 4- (1,1,3,3-四甲基丁基) 苯酚,乙氧基–以及所有被定义的物质,未知成分或可变成分的物质,聚合物和同系物	-	0.01%
43	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] / 分支或线性的王基酚,包括含有9个碳烷基链的所有独立的同分异构体和所有含有线性或分支9个碳烷基链的UVCB物质	-	0.01%
44	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear 邻苯二甲酸异己酯	68515-50-4	0.01%
45	Dihexyl phthalate / 邻苯二甲酸二己酯	84-75-3	0.01%
46	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) / 1,2-苯二甲酸二C6-10烷基酯; 1,2-苯二甲酸混合癸、己、辛二酯,包含 ≥ 0.3% 的邻苯二甲酸二己酯(EC No. 201-559-5)	68515-51-5 / 68648-93-1	0.01%
47	Trixylyl phosphate / 磷酸三(二甲苯)酯	25155-23-1	0.01%
48	Sodium perborate,perboric acid, sodium salt (*2) (*5) / 水合高硼酸钠盐类	-	0.01%
49	Sodium peroxometaborate (*2) (*5) 过硼酸钠	7632-04-4	0.01%
50	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 stereoisomers of [1] and [2] or any combination thereof] / [1] 5-二级丁基-2-(2,4-二甲基环己-3-烯-1-基)-5-甲基-1,3-二噁烷, [2] 5-二级丁基-2-(4,6-二甲基环己-3-烯-1-基)-5-甲基-1,3-二噁烷包含以下[1]与[2]之所有单独立体异构物与其组成。	-	0.01%
51	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) / 2-(2'-羟基-3',5'-二特戊基苯基)苯并三唑	25973-55-1	0.01%
52	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) / 2,4-二-叔丁基-6-(5-氯-2H-苯并三唑-2-基)苯酚(UV-327)	3864-99-1	0.01%
53	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) / 2-(2'-羟基-3'-异丁基-5'-叔丁基苯基)苯并三唑(UV-350)	36437-37-3	0.01%
54	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) / 2-(2'-羟基-3',5'-二叔丁基苯基)-苯并三唑	3846-71-7	0.01%
55	Anthracene / 蒽	120-12-7	0.01%
56	Bis(tributyItin) oxide (TBTO) (*4) / 氧化双三丁基锡	56-35-9	0.01%
57	Triethyl arsenate (*2) / 三乙基砷酸盐	15606-95-8	0.01%
58	Lead hydrogen arsenate (*2) / 砷酸氢铅	7784-40-9	0.01%
59	Cobalt dichloride (*2) / 二氯化钴	7646-79-9	0.01%
60	Acrylamide / 丙烯酰胺	79-06-1	0.01%



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61	Anthracene oil, anthracene paste, distn. lights (*6) / 蔥油,蔥糊,轻油	91995-17-4	
62	Anthracene oil, anthracene paste, anthracene fraction (*6) / 蒽油, 蒽糊, 蒽馏分离液	91995-15-2	
63	Anthracene oil, anthracene-low (*6) / 蔥油, 含蒽量少	90640-82-7	0.01% (*7)
64	Anthracene oil, anthracene paste (*6) / 蔥油, 蔥糊	90640-81-6	
65	Boric acid (*2) (*5) / 硼酸	10043-35-3 / 11113-50-1	0.01%
66	Disodium tetraborate, anhydrous (*2) (*5) / 无水四硼酸二钠	1303-96-4 / 1330-43-4 / 12179- 04-3	0.01%
67	Tetraboron disodium heptaoxide, hydrate (*2) (*5) / 水合七氧四硼酸二钠	12267-73-1	0.01%
68	2-Methoxyethanol / 2-乙二醇甲醚	109-86-4	0.01%
69	2-Ethoxyethanol / 2-乙氧基乙醇	110-80-5	0.01%
70	Cobalt(II) sulphate (*2) / 硫酸钴(II)	10124-43-3	0.01%
71	Cobalt(II) dinitrate (*2) / 硝酸钴(II)	10141-05-6	0.01%
72	Cobalt(II) carbonate (*2) / 碳酸钴(II)	513-79-1	0.01%
73	Cobalt(II) diacetate (*2) / 醋酸钴(II)	71-48-7	0.01%
74	Alkanes C10-C13, chloro (Short Chain Chlorinated Paraffins) (SCCP) / 短链氯化石蜡	85535-84-8	0.01%
75	2-Ethoxyethyl acetate / 2-乙氧基乙酸乙酯	111-15-9	0.01%
76	Hydrazine / 肼	302-01-2 / 7803-57-8	0.01%
77	1-Methyl-2-pyrrolidone (NMP) / 1 -甲基- 2 -吡咯烷酮	872-50-4	0.01%
78	1,2,3-Trichloropropane / 1,2,3-三氯丙烷	96-18-4	0.01%
79	Aluminosilicate Refractory Ceramic Fibres (RCF) (*8) /硅酸铝,耐火陶瓷纤维	-	0.01%
80	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) (*8) / (Zr-RCF)氧化锆硅酸铝.耐火陶瓷纤维	-	0.01%
81	2-Methoxyaniline,o-Anisidine / 邻甲氧基苯胺	90-04-0	0.01%
82	4-(1,1,3,3-tetramethylbutyl)phenol / 对特辛基苯酚	140-66-9	0.01%
83	Calcium arsenate (*2) / 砷酸钙	7778-44-1	0.01%
84	Trilead diarsenate (*2) / 砷酸铅	3687-31-8	0.01%
85	N,N-dimethylacetamide (DMAC) / 二甲基乙酰胺	127-19-5	0.01%
86	Phenolphthalein / 酚酞	77-09-8	0.01%
87	Lead dipicrate (*2) / 苦味酸铅	6477-64-1	0.01%
88	Lead diazide, Lead azide (*2) / 叠氮化铅	13424-46-9	0.01%
89	Lead styphnate (*2) / 收敛酸铅	15245-44-0	0.01%
90	1,2-bis(2-methoxyethoxy)ethane (TEGDME,triglyme) / 1,2-二(2-甲氧基乙氧基)乙烷 (三甘醇二甲醚)	112-49-2	0.01%
91	1,2-dimethoxyethane,ethylene glycol dimethyl ether (EGDME) / 1,2-二甲氧基乙烷 (乙二醇二甲醚)	110-71-4	0.01%
92	Diboron trioxide (*2) (*5) / 三氧化二硼	1303-86-2	0.01%
93	Formamide (FOR) / 甲酰胺	75-12-7	0.01%



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94	Lead(II) bis(methanesulfonate) (*2) / 甲基磺酸铅	17570-76-2	0.01%
95	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC) / 异氰尿酸三缩水甘油酯	2451-62-9	0.01%
96	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC) / 1,3,5-三(环氧乙烷基甲基)- 1,3,5-三嗪-2,4,6-(1H,3H,5H)- 三酮立体 异构体	59653-74-6	
97	4,4'-bis(dimethylamino)benzophenone (Michler's ketone), MK / 4,4'-二(N,N-二甲氨基)二苯甲酮(四甲基米氏酮)	90-94-8	0.01%
98	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base), RMK / N,N,N',N'-四甲基-4,4'-二氨基二苯甲烷(四乙基米氏酮)	101-61-1	0.01%
99	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*2) / 碱性蓝26	2580-56-5	0.01%
100	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*9) / 结晶紫 (4-(双(P-(二甲氨基)苯基)亚甲基)-2,5-环己烯基-1-基铵	548-62-9	0.01%
101	4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*9) / 4,4-二 [(二甲氨基)苯基]-4-甲氨基苯甲醇	561-41-1	
102	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*9) / α, α - 二[4-(二甲氨基)苯基]-4-苯基氨基-1-萘甲醇	6786-83-0	
103	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE) 十溴联苯醚	1163-19-5	0.01%
104	Pentacosafluorotridecanoic acid / 全氟十三酸	72629-94-8	0.01%
105	Tricosafluorododecanoic acid / 全氟十二酸	307-55-1	0.01%
106	Henicosafluoroundecanoic acid / 全氟十一酸	2058-94-8	0.01%
107	Heptacosafluorotetradecanoic acid / 全氟十四酸	376-06-7	0.01%
108	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA) (*11) / 偶氮二甲酰胺	123-77-3	0.05%
109	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry] / 六氫苯二甲酸酐	85-42-7 / 13149-00-3 / 14166-21-3	0.01%
110	Hexahydromethylphthalic anhydride (MHHPA) [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry] /甲基六氫苯酐	25550-51-0 / 19438-60-9 / 48122-14-1 / 57110-29-9	0.01%
111	N,N-dimethylformamide (DMF) / N,N-二甲基甲醯	68-12-2	0.01%
112	1,2-Diethoxyethane / 乙二醇二乙醚	629-14-1	0.01%
113	Diethyl sulphate/ 硫酸二乙酯	64-67-5	0.01%
114	Methoxyacetic acid (MAA) / 甲氧基乙酸	625-45-6	0.01%
115	Dimethyl sulphate / 硫酸二甲酯	77-78-1	0.01%
116	N-methylacetamide / N-甲基乙酰胺	79-16-3	0.01%



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117	Furan / 呋喃	110-00-9	0.01%
118	Methyloxirane (Propylene oxide) / 环氧丙烷	75-56-9	0.01%
119	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine / 3-乙基-2-甲基-2- (3-甲基丁基) -1,3-恶唑烷	143860-04-2	0.01%
120	室) -1,3-心性が Dibutyltin dichloride (DBTC) (*15) / 二氯二丁基錫	683-18-1	0.01%
121	Dinoseb (6-sec-butyl-2,4-dinitrophenol) / 2- (1-甲基丙基) -4,6-二硝基苯酚	88-85-7	0.01%
122	4,4'-methylenedi-o-toluidine / 4,4'-二氨基-3,3'-二甲基联苯基甲烷	838-88-0	0.01%
123	4,4'-oxydianiline and its salts / 4,4'-二氨基二苯醚	101-80-4	0.01%
124	4-Aminoazobenzene / 4-氨基偶氮苯	60-09-3	0.01%
125	4-methyl-m-phenylenediamine (toluene-2,4-diamine) / 2,4-二氨基甲苯	95-80-7	0.01%
126	6-methoxy-m-toluidine (p-cresidine) / 3-甲基-6-甲氧基苯胺	120-71-8	0.01%
127	Biphenyl-4-ylamine / 4胺基联苯	92-67-1	0.01%
128	o-aminoazotoluene / 邻氨基偶氮甲苯	97-56-3	0.01%
129	o-Toluidine / 邻甲苯胺	95-53-4	0.01%
130	Acetic acid, lead salt, basic (*2) / 城式醋酸铅	51404-69-4	0.01%
131	Trilead bis(carbonate) dihydroxide (*2) / 城式碳酸铅	1319-46-6	0.01%
132	Lead oxide sulfate (*2) / 城式硫酸铅	12036-76-9	0.01%
133	[Phthalato(2-)]dioxotrilead (*2) / (1,2-苯二羧酸根合)二氧化三铅	69011-06-9	0.01%
134	Dioxobis(stearato)trilead (*2) / 双(十八酸基)二氧代三铅	12578-12-0	0.01%
135	Fatty acids, C16-18, lead salts (*2) /C16-18-脂肪酸铝盐	91031-62-8	0.01%
136	Lead bis(tetrafluoroborate) (*2) / 四氟硼酸铅(II)	13814-96-5	0.01%
137	Lead cyanamidate (*2) / 氨基氰铅盐	20837-86-9	0.01%
138	Lead dinitrate (*2) / 硝酸铅	10099-74-8	0.01%
139	Lead monoxide (lead oxide) (*2) / 氧化铅	1317-36-8	0.01%
140	Orange lead (lead tetroxide) (*2) / 四氧化铅	1314-41-6	0.01%
141	Lead titanium trioxide (*2) / 钛酸铅	12060-00-3	0.01%
142	Lead titanium zirconium oxide (*2) / 钛酸铅锆	12626-81-2	0.01%
143	Pyrochlore, antimony lead yellow (*2) 颜料黄41	8012-00-8	0.01%
144	Pentalead tetraoxide sulphate (*2) /氧化铅与硫酸铅的复合物	12065-90-6	0.01%
145	Silicic acid (H2Si2O5), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD),the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008] (*2) / 含铅的矽酸钡	68784-75-8	0.01%
146	Silicic acid, lead salt (*2) / 矽酸铅	11120-22-2	0.01%
147	Sulfurous acid, lead salt, dibasic (*2) / 亚硫酸铅 (II)	62229-08-7	0.01%
148	Tetraethyllead (*2) / 四乙基铅	78-00-2	0.01%
149	Tetralead trioxide sulphate (*2) / 三碱式硫酸铅	12202-17-4	0.01%
150	Trilead dioxide phosphonate (*2) / 磷酸氧化铅	12141-20-7	0.01%
151	Ammonium pentadecafluorooctanoate (APFO) (*12) / 全氟辛酸铵	3825-26-1	0.01%
152	Pentadecafluorooctanoic acid (PFOA) / 全氟辛酸	335-67-1	0.01%
153	Cadmium (*2) /镉	7440-43-9	0.01%
154	Cadmium oxide (*2) /氧化镉	1306-19-0	0.01%



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155	4-Nonylphenol, branched and linear, ethoxylated (NPEO) [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] / 分支或线性的乙氧化壬基酚 [包括含有9个碳烷基链的所有独立的同分异构体和所有含有线性或分支9个碳烷基链的UVCB物质]	-	0.01%
156	Imidazolidine-2-thione; (2-imidazoline-2-thiol) / 伸乙硫脲(咪唑啶-2-硫酮)	96-45-7	0.01%
157	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) / 直接红28	573-58-0	0.01%
158	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) / 直接黑38	1937-37-7	0.01%
159	Lead di(acetate) (*2) / 醋酸铅	301-04-2	0.01%
160	Cadmium sulphide (*2) / 硫化镉	1306-23-6	0.01%
161	Cadmium chloride (*2) / 氯化镉	10108-64-2	0.01%
162	Cadmium fluoride (*2) / 氟化镉	7790-79-6	0.01%
163	Cadmium sulphate (*2) / 硫酸镉	10124-36-4 / 31119-53-6	0.01%
164	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) (*13) /二正辛基-双(巯乙酸2-乙基己酯)锡(DOTE)	15571-58-1	0.01%
165	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) (*14) / 二正辛基-双(巯乙酸2-乙基己酯)锡 与甲基锡三(巯基乙酸异辛酯)的反应物(DOTE 和MOTE反应物)	-	0.01%
166	1,3-propanesultone (1,3-PS) / 1,3-丙烷磺酸内酯	1120-71-4	0.01%
167	Nitrobenzene / 硝基苯	98-95-3	0.01%
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts / 全氟壬酸及其钠和铵盐	375-95-1 / 21049-39-8 / 4149-60-4 /	0.01%
169	Benzo[def]chrysene (Benzo[a]pyrene) /苯并[def]菌 (苯并[a]芘)	50-32-8	0.01%
170	4,4'-isopropylidenediphenol (bisphenol A) (BPA) / 双酚A	80-05-7	0.01%
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts / / 全氟癸酸 (PFDA) 及其钠盐和铵盐	335-76-2 / 3830-45-3 / 3108-42-7	0.01%
172	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] / 支链与直链的4-庚基酚	-	0.01%
173	p-(1,1-dimethylpropyl)phenol 4-叔戊基苯酚	80-46-6	0.01%
174	Perfluorohexane-1-sulfonic acid and its salts (PFHxS) / 全氟己基磺酸及其盐类	-	0.01%
175	Chrysene / 屈	218-01-9	0.01%
176	Benzo[a]anthracene / 苯並[a]蒽	56-55-3	0.01%
177	Cadmium nitrate(*2) / 硝酸镉	10325-94-7	0.01%
178	Cadmium hydroxide(*2) / 氢氧化镉	21041-95-2	0.01%
179	Cadmium carbonate(*2) / 碳酸镉	513-78-0	0.01%
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"TM) [covering any of its individual anti- and syn-isomers or any combination thereof] / 德克隆[包括所有反式和顺式异构体及其组合]	-	0.01%



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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] / 1,3,4噻二唑烷-2,5二硫酮,甲醛和4-庚基苯酚的支链和直链的反应物(4-庚基苯酚,支链和直链含量≥0.1% w/w)	-	0.01%
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride, TMA) / 1,2,4-苯三酸酐(偏苯三酸酐) (TMA)	552-30-7	0.01%
183	Dicyclohexyl phthalate (DCHP) /邻苯二甲酸二环己酯(DCHP)	84-61-7	0.01%
184	Terphenyl, hydrogenated / 氢化三联苯	61788-32-7	0.01%
185	Octamethylcyclotetrasiloxane (D4) / 八甲基环四硅氧烷(D4)	556-67-2	0.01%
186	Decamethylcyclopentasiloxane (D5) / 十甲基环五硅氧烷(D5)	541-02-6	0.01%
187	Dodecamethylcyclohexasiloxane (D6) / 十二甲基环六硅氧烷(D6)	540-97-6	0.01%
188	Ethylenediamine (EDA) / 乙二胺 (EDA)	107-15-3	0.01%
189	Lead / 铅(*2)	7439-92-1	0.01%
190	Disodium octaborate(*2) (*5) / 氧化硼钠	12008-41-2	0.01%
191	Benzo[ghi]perylene / 苯并(g,h,i)苝	191-24-2	0.01%
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane / 2,2-二(4-羟基苯基)-4-甲基戊烷	6807-17-6	0.01%
193	Benzo[k]fluoranthene / 苯并(k)荧蒽	207-08-9	0.01%
194	Fluoranthene / 荧蒽	206-44-0	0.01%
195	Phenanthrene / 菲	85-01-8	0.01%
196	Pyrene / 芘	129-00-0	0.01%
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan- 2-one 1,7,7-三甲基-3-(苯基亚甲基)双环[2.2.1]庚烷-2-酮	15087-24-8	0.01%
198	2-methoxyethyl acetate / 2-甲氧基乙基乙酸酯	110-49-6	0.01%
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) ) / 三 (4-壬基苯基,支链和直链)亚磷酸酯(TNPP),含有≥0.1% w / w 的 4 -壬基苯基,支链和直链(4-NP)	-	0.01%
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof) / 2,3,3,3-四氟-2- (七氟丙氧基) 丙酸,及其盐类和酰基卤化物(包括它们各自的同分异构体及其组合)	-	0.01%
201	4-tert-butylphenol (PTBP) / 4-叔丁基苯酚	98-54-4	0.01%
202	Diisohexyl phthalate (DiHexP) / 邻苯二甲酸二异己酯	71850-09-4	0.01%
203	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone / 2-苄基-2-二甲基氨基-1-(4-吗啉苯基)丁酮	119313-12-1	0.01%
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one / 2-甲基-1-(4-甲硫基苯基)-2-吗啉基-1-丙酮	71868-10-5	0.01%
205	Perfluorobutane sulfonic acid (PFBS) and its salts / 全氟丁烷磺酸(PFBS)及其盐	-	0.01%
206	1-vinylimidazole / 1-乙烯基咪唑	1072-63-5	0.01%
207	2-methylimidazole / 2-甲基咪唑	693-98-1	0.01%
208	Butyl 4-hydroxybenzoate / 对羟基苯甲酸丁酯	94-26-8	0.01%
209	Dibutylbis(pentane-2,4-dionato-O,O')tin(*15) / 双(乙酰丙酮酸)二丁基锡	22673-19-4	0.01%
210	Bis(2-(2-methoxyethoxy)ethyl)ether / 双(2-(2-甲氧基乙氧基)四乙二醇二甲醚	143-24-8	0.01%
211	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety (*13) / 二月桂酸二辛酯、锡烷, 二辛基锡、二辛基锡、双(椰油酰氧基)衍生物和任何其他锡、二辛基锡、双(脂肪酰氧基)衍生物。其中C12 是脂肪酰氧基部分的主要碳数	-	0.01%



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212	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers / 2-(4-叔丁基苄基)丙醛及其立体异 构体	-	0.01%
213	Orthoboric acid, sodium salt (*2) (*5) / 原硼酸钠盐	13840-56-7	0.01%
214	2,2-bis(bromomethyl)propane1,3-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)/ 2,2-双(溴甲基)丙烷1,3-二醇 (BMP);2,2-二甲基丙-1-醇,三溴衍生物/3溴-2,2-双(溴甲基)-1-丙醇(TBNPA);2,3-二溴-1-丙醇(2,3-DBPA)	3296-90-0 / 36483-57-5 / 1522-92-5 / 96-13-9	0.01%
215	Glutaral / 戊二醛	111-30-8	0.01%
216	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] / 中链氯化石蜡(MCCP) (UVCB物质由大于或等于80% 的碳链长度在C14至C17范围内 的直链氯代烷烃组成)	-	0.01%
217	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) / 苯酚,烷基化产物(主要在对位) 具有来自低聚的富含C12的支链 烷基链,涵盖单个异构体和/或它 们的组合(PDDP)	-	0.01%
218	1,4-dioxane / 1,4二恶烷	123-91-1	0.01%
219	4,4'-(1-methylpropylidene)bisphenol / 4,4"(1-甲基亚丙基) 双酚	77-40-7	0.01%
220	tris(2-methoxyethoxy)vinylsilane/乙烯基-三(2-甲氧基乙氧基)硅烷	1067-53-4	0.01%
221	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/S-(三环[5.2.1.0'2,6]癸-3-烯-8(或9)-基)O-(异丙基或异丁基或2-乙基己基)O-(异丙基或异丁基或2-乙基己基)二硫代磷酸酯	255881-94-8	0.01%
222	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)_/2,2'-亚甲基双- (4-甲基-6-叔丁基苯酚	119-47-1	0.01%
223	(±)-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) /(±)-1,7,7-三甲基-3-[(4-甲基苯基)亚甲基]双环[2.2.1]庚-2-酮,包括任何单独的异构体和/或其组合(4-MBC) (3E)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one / (3E)-1,7,7-trimethyl-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (1R,3E,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one / (1R,3E,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one / (1R,3E,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one / (1S,3Z,4R)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (±)-1,7,7-trimethyl-3-[(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one / (1R,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one / (1R,4S)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (1S,3E,4R)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (1S,3E,4R)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (1R,3Z,4S)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]pe-2-酮 (1R,3Z,4S)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (1R,3Z,4S)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]庚-2-酮 (1R,3Z,4S)-1,7,7-三甲基-3-(4-甲基苯亚甲基)双环[2.2.1]pe-2-酮 (1R,3Z,4S)-1,7,7-三甲基-3-(4-甲基苯亚甲基)	- 1782069-81-1 95342-41-9 852541-25-4 36861-47-9 741687-98-9 852541-30-1 852541-21-0	0.01%
224	N-(hydroxymethyl)acrylamide/ N-(羟甲基)丙烯酰胺	924-42-5	0.01%
225	1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene] 1,2-二(2,4,6-三溴苯氧基)乙烷	37853-59-1	0.01%
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (TBBPA) 四溴双酚 A	79-94-7	0.01%
227	4,4'-sulphonyldiphenol 双酚 S	80-09-1	0.01%
228	Barium diboron tetraoxide(*2) (*5) 偏硼酸钡	13701-59-2	0.01%
229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof 3,4,5,6-四溴-1,2-苯二羧酸双(2-乙基己基)酯,包括包括任何单独的异构体和/或其组合	-	0.01%



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230	Isobutyl 4-hydroxybenzoate 4-羟基苯甲酸 2-甲基丙酯	4247-02-3	0.01%
231	Melamine 三聚氰胺	108-78-1	0.01%
232	Perfluoroheptanoic acid and its salts 全氟庚酸及其盐	-	0.01%
233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine 2,2,3,3,5,5,6,6-八氟-4-(1,1,1,2,3,3,3-七氟丙烷-2-基)吗啉和2,2,3,3,5,5,5,6,6-八氟烷-4-(七氟丙基)吗啉的反应物料	-	0.01%
234	bis(4-chlorophenyl) sulphone 4,4'-二氯二苯砜	80-07-9	0.01%
235	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO) (2,4,6-三甲基苯甲酰基) 二苯基氧化膦	75980-60-8	0.01%
236	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol Phenol, methylstyrenated EC / List no: 270-966-8   CAS no: 68512-30-1 2-苯丙烯与苯酚的低聚和烷基化反应产物	-	0.01%
237	Bumetrizole 2-(5-氯-2H-苯三唑-2-基)-6-(1,1-二甲基乙基)-4-甲基苯酚(UV-326)	3896-11-5	0.01%
238	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 2- (二甲基氨基) -2-[ (4-甲基苯基) 甲基]-1-[4- (吗啉-4-基) 苯基]丁-1-酮	119344-86-4	0.01%
239	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) [2-羟基-5-(1,1,3,3-四甲丁基)苯基]苯并三唑(UV-329)	3147-75-9	0.01%
240	2,4,6-tri-tert-butylphenol 2,4,6-三叔丁基苯酚	732-26-3	0.01%
241	Bis(α,α-dimethylbenzyl) peroxide 过氧化二异丙苯	80-43-3	0.01%

### Remarks 备注

- (\*2) The substances are tested and calculated in terms of its respective elements and to the worst-case scenario. The report states the theoretical value of SVHC substances without consideration of the actual occurrence in the article. 这些物质按照其各自元素测定并按照最坏的情况进行计算。这些对应的元素可能来自SVHCs以外的化合物。
- (\*3) The substances are tested and calculated in terms of Cr (VI). 测试其代表性元素六价铬。
- (\*4) The substance is tested and calculated in terms of Tributyl tin. 测试三丁基錫并以之做計算。
- (\*5) The substances are tested and calculated in terms of boron element and the boron element may come from the compounds other than SVHCs.
- (\*6) The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological materials), which are identified by its main constituents. 该物质为未知或多种混合物,交错反应物质或生物材料,以其主要组成物质分析之。
- (\*8) The test results are based on microscopic and chemical evaluation. 测试结果依据显微镜和化学评估。
- (\*9) The substances are quantified in terms of Michler's ketone and Michler's base by LC-MS, as Michler's ketone or Michler's base was found exceeds 0.01%.

  当米希勒酮或米希勒碱含量超过0.01%.时,用LC-MS以米希勒酮和米希勒碱做确认分析。



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- (\*10) The content oligomer is determined by Py-GC/MS. 低聚合物的含量以Py-GC/MS分析
- (\*11) The content of diazene-1,2-dicarboxamide is analyzed in terms of its breakdown product. 含量以其分裂物质分析
- (\*12) The substance is tested in terms of pentadecafluorooctanoate. 测试其代表性物质十五氟辛酸盐。
- (\*13) The substance is tested and calculated in terms of Dioctyl tin. 测试二辛基锡并以之做计算。
- (\*14) The substance is tested and calculated in terms of Monooctyl tin and Dioctyl tin. 测试单辛基锡和二辛基锡并以之做计算
- (\*15) The substance is tested and calculated in terms of Dibutyl tin 测试二丁基锡并以之做计算。
- (\*16) The tested material(s) was screened only for selected SVHCs. Selection of tests refers to the material type and application and the possibility of contamination during production & material specific contamination of the product.

  测试材料选择性筛检高度关注物质。选择的测试参考材料种类,应用,生产过程中污染的可能性和产品材料的特性。
- (\*17) The other SVHCs which are not mentioned in test result were either not subject to testing according to remark \*16 or less than report limit.

  测试结果中没有提及的其他高度关注物质,依据备注16无需测试或低于报告检出限。
- (\*18) The theoretical content of SVHC substances is calculated in terms of its respective elements. This material may contains the mentioned SVHCs, it is suggested to check the respective recipe if the theoretical content of the respective substance > 0.1% in each article



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Sample Photos 样品照片





- END 完 -



### General Terms and Conditions of Business of TÜV Rheinland in Greater China

- Scope
  These General Terms and Conditions of Business of TUV Rheinland in Greater China ("GTCB") is made between the client and one or more member entities of TUV Rheinland in Greater China is applicable as the case may be ("I'UV Rheinland"). The Greater China hereof refers to the regions within the territories of China. The Client hereof includes:

  a natural person capable to form laggly binding contracts under the applicable laws who concludes the contract not for the purpose of a daily use.

  The following terms and conditions of proceedings of the contract under the applicable law. The following terms and conditions of provisions the vision and conditions of the contract under the applicable two. The following terms and conditions of the client daily strip calcillary services and similar services as well as an activate services information, deliveries and similar services as well as an activate services information, deliveries and similar services as well as an activate services and services and services are under the contract of the contract even if TUV Rheinland does not explainly object to them. In the context of an ongoing business relationship with the client, this CTGB shall also apply to future contracts with the client without TUV Rheinland having to refer to them separately in each individual case.
- (ii)
- 13

Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

### Coming into effect and duration of contracts

- Coming into effect and duration of contracts

  The contract shall come into effect for the agreed terms upon the quotation letter of TÜV.

  Rhenland or a separate contractual document being signed by both contracting parties, or upon the works requested by the client being carried out by TÜV. Rheinland if the ident instructs TÜV.

  Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland si, in its sole discretion, erfeitled to accept the order by giving written notice of such acceptance (including notice sent via effectronic means) or by performing the requested services.

  The contract term starts upon the coming into effect of the contract in sociodance with article 3.1 and shall continue for the term agreed in the contract.

  If the contract provides for an existenci of the common of the contract term, the contract term will be extended the contract term, the contract term will be extended month notice prior to the end of the contractual term.
- 3.3

- The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contractually agreed service scope of TÜV Rheinland by both parties. It no such separate service scope of TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the service description (e.g., checking the correctness and functionality of partie, products, proprocesses, installations, organizations not Island in the service description, as well as the intended use and application of such) are not owed. In particular, no responsibility is assumed for the design, selection of materials, construction or intended use of an examined part product, process or plant, unless this is expressly stated in the order.
- 4.3
- The agreed services shall be performed in compliance with the regulature is in a contract is entered into.

  TÜV Rheinland is entitled to determine, in its sole discretion, the method and nature of the assessment unbest scherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.

  On execution of the Nette shall be no simultaneous assumption of any guarantee of the On execution of the willy) and working order of either tested or exemined parts nor of the installation as a whole and its upstream and/or downstream processes, organisations, use and application in accordance with regulations, nor of the systems on which the installation is based in particular. TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, nor for the use and application in accordance with regulations, unless these questions are expressly covered by the contract.

- in particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, not for their use and application in accordance with requisitions, unless these questions are expressly covered by the contract.

  In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, reading of the safety programmes or safety regulations on which the inspections are based, reading of the safety programmes or safety regulations on which the inspections are based, reading and the safety of the safety programmes or safety regulations on which the heapted service scope change after conclusion of the contract, with a written notice to the client, TÜV Rheinland shall be entitled to additional remumeration for resulting additional expenses.

  The services to be provided by TÜV Rheinland under the contract are agreed exclusively with the contract are safety of the safety of t

- 5.5
- Performance periods/dates of performance are based on estimates of the work involved which are prepared in line with the details provided by the client. They shall only be binding fleeing confirmed as binding by TUV Rehination to writing, shall not commence until the Archies 5.1 and 5.2 also apply, even whost or spread to the periods shall not commence until the Archies 5.1 and 5.2 also apply, even whost or express approval by the client, to all extensions of agreed periods/dates of performance not caused by TUV Rehelman. TUV Rehination and or responsible for a delay in performance, in particular if the client has not input to the periods of t
- to resume performance.

  The client is obliged to comply with legal, officially prescribed and/or by the accreditor prescribed deadlines, it is the client's obliged to comply with legal, afficially prescribed and/or by the accreditor prescribed deadlines. It is the client's responsibility to agree on performance dates with TUV Rheinland, which enable the client to comply with the legal and/or officially prescribed deadlines. TUV Rheinland assumes no responsibility in this respect unless TUV Rheinland expressly agreed in writing aspectically stating that enumpting the deadlines is the contractual obligation of TUV.

- The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to  $T\bar{U}V$  Rheinland. 6.1
- Design documents, supplies, suxiliary staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and varrants that:

- b) the product, service or management system to be certified complies with applicable laws and regulations; and
- it doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.
- If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract/order without prior notice; and ii) withdraw the issued testing report/centificates
- The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expense.

- 7.1
- If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. If no price is sagreed in writing, invoicing shall be made in accordance with the price list of TUV Phenianda valid at the time of performance. Unless otherwise agreed, work shall be invoiced according to the progress of the work. If the execution of an order actuation over more than one month and the value of the contract or the agreed fixed price exceeds £2,500.00 or equivalent value in local currency. TUV Rheinland may demand payments on account or in installments.

- All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted. Payments shall be made to the basis, account of TUV Rhenland as indicated on the invoice, stating the invoice and client numbers. Stating the invoice and client numbers. Stating the invoice and client numbers. Stating the invoice and client numbers of the properties of the properties of the properties of the properties of the publicy amounted by a reputable commercial bank in the country where TUV Rheinland is located. At the same time, TUV Rheinland reserves the right to claim further demanges.
- applicable short term loan interest fave puocus princeres up a reposeer connected and the country where TUV Rheisland is located. At the same time, TUV Rheinland reserves the right the country where the term of the invoice despite being granted a reasonable grace period. TUV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract. The provisions set forth in article & I shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the claimst assets or contract to the contract of the contract of the contract of payment, commencement of insolvency proceedings against the claimst assets or contract of the contract of payment, commencement of insolvency proceedings against the claimst assets or contract on the contract of the contract
- ets.
  ections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of epit of the invoice.

TÜV Rheinland shall be entitled to demand appropriate advance payments. TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have heroteader. In this case, TÜV Rheinland shall notify the client in writing of the upper purchase to the proper purchase the propered purchase the proper purchase the proper purchase the proper pu

Only legally established and undisputed claims may be offset against claims by TÜV Rheinland. TÜV Rheinland shall have the right at all times to setoff any amount due or payable by the client including but not limited to setoff against any less goal by the client under any contracts agreement and or orders/quotations reached with TÜV Rheinland.

- 9.1
- Any part of the work result ordered which is complete in itself may be presented by TÜV Rheniand for acceptance as an instalment. The client shall be obliged to accept it immediately. If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client retures acceptance within this period stating at least one unfundental breach of contract by TÜV.
- Rheinland.

  The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV 
  Rheinland. 9.3
- Rheinland. If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place. During the Follow-Audit stage, if the client was unable to make use of the time windows provided for within the scope of a certification procedure for auditing/performance by TÜV Rheinland and the certificate is therefore to be without (e.g. performance of surveillance audits), or if the client certification promoted the procedure of surveillance audits), or if the client certification shallow of the certification procedure of surveillance audits), or if the client certification is interested to extend the procedure of surveillance audits), or if the crief cannot as compensation for expenses. The client reserves the right to prove that the TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above lump sum.
- Rhehland has incurred no damage whatsoever or usy a wannounce, ..., above lump sum, ar as the client has undertaken in the contract to accept services, TUV Rheinland shall also be entitled to charge lump-sum damages in the amount of 10% of the order amount as compensation for expenses if the service is not called within one year after the order has been placed. The client reserves the right to prove that the TUV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above mentioned lump sum.

- dentiality

  For the purpose of these terms and conditions, "confidential information" means all know-how, trade secrets, documents, images, drawings, expertise, information, dais, test results, sports, and secrets, documents, images, drawings, expertise, information, dais, test results, sports, and marketing techniques and materials, tangible or intangible, that are supplied, transferred or indevise disclosed by one Party (the "disclosing party") to the other Party (the "receiving party"), in writing or orally, in printed or electronic format. Confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is disclosed party in the provision of services 10.2. The disclosing party shall mark all confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential information to make the client child and any confidential information to TDV Rheinland. Instead, the client shall associate in the party shall confirm in uniting the confidential information to TDV Rheinland. Instead, the client shall associate into any confidential information to TDV Rheinland. Instead, the client shall associate into any confidential information to TDV Rheinland. Instead, the client shall associate and party transmits or otherwise discloses to the client shall associated and party transmits or otherwise discloses to the creating party and which is created during performance of work by TDV R
- 10.3
- 10.5 a)
- 10.7

## 11.1

- TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TÜV Rheinland is free to grant others the right to use the work results for individual or all types of use
- Rhehinal is free to grant others the right to use the work results for individual or all types of use (right of use). The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the contents of the work results produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such reports, export reports/opinions, test apports/results, results calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose. subject to Mil proyment of the renumeration agreed in tenuous left of clause 11.2 of the GTCB is subject to Mil proyment of the renumeration agreed in tenuous left of the Client may only pass on the work results in Unless TUV Rheinland has given its provivation correct to the partial passing on of work results.
- 11.4
- work results in full unless 1UV Rhenland has given its pror written consent to the partial passing on I work results in Societies and public exploration of work results for schedinging purposes or any further use of Arry publication the exploitation of the work results for schedinging purposes or any further use of TUV Rhenland need the prior written approved of TUV Rhenland and certification rules, etc.).

  TUV Rhenland may revoke a conce given approval according to clause 11.5 at any time without stating reasons. In this case, the client is colleged to stop the transfer of the work results immediately afth own expense and, as first any sousher, to whicher work results immediately afth own expense and, as first any sousher, or which results similar document of TUV Rhenland to publication of the work results in the consent of TUV Rhenland to publication of the work results in the content of TUV Rhenland comprised populated or the results of the Volk Rhenland or TUV Rhenland or TUV Rhenland.

### Liability of TÜV Rheinland

12.1

- Liability of TÜV Rheinland

  Irraspective of the legal basis, to the fullest extent permitted by applicable law, in the event of a breach of contractual obligations or lord, the liability of TÜV Rheinland for all damages, bases and reimbursament of expenses caused by TÜV Rheinland, its legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fleed overall feet, these times the representatives and/or employees shall be limited to: (ii) in the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euror equivalent amount in local currency; and (iv) in the case of a famawork agreement that provides for the possibility of placing individual orders, three times of Nowthatandrian places and the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euror equivalent amount in local currency. The total and accumulated liability of TÜV Rheinland shall be only limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

  In the case is the contract and accumulated liability of TÜV Rheinland shall be only limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency. The contract has been shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

  In the contract has been shall not exceed the said of the contract shall be limited or and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

  In the contract has been shall not be increased by mainlor and contract and be limited to an shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

  In the contract has been shall not be increased by mainlore and contract of the contract shall be limited to the amount of damages reasonably foreseen as a possible consequence of such treach or contract unless such personnel made available is reported as vicarious agents. Or the personnel made available is reported as vicarious agent of

When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control law. The performance of a contract with the client is subject to the provisio that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or the performance due to national or international foreign trade legislations or embargos and/or the performance due to national or international foreign trade legislations or embargos and/or the performance of the national or international foreign trade legislations or embargos and/or the performance of the national or the performance of the performance of the national performance of the national performance of the performance of the national performance of the national performance of the performance of 13.1

sanctions. In the event of a violation, TÜV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incured thereof by TÜV Rheinland.

Data protection notice

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to penceal information) of the client and its related parties (including but not limited to the client and its related parties (including but not limited to the client and its related parties (including but not limited to the client client or process the personal data that the client collected or processes day itself and transferred to TÜV Rheinland. For certain services, we may also process sensitive personal data. TÜV Rheinland villus and process the data in accordance with the relavant legal basis. It amy personal data has to be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed or transferred to any hird party or any overseas party outside of the data has be disclosed to the data has been any transferred to the data subject. TON Rheinland will be any control of the data that personal data. The personal subjects may exercise the following rights: right of information, right of desicion, right of d

- 15.2
- tion of test material and documentation

  The test samples submitted by the client to TÜV Rheinland for testing will be scrapped following testing or will be returned to the client at the client's experies. The only exceptions are test stating requirement with the client.

  In storage or the basis of sistutions requirement with the client in storage on the basis of sistutions regulations or of another agreement with the client.

  Charges apply if the test samples are stored at the premises of TÜV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation. If reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples ander documentation, any liability claims for material and pecuniary damage resulting from the respective testing and certification that is brought forward by the client against TUV Rheinland as allow olded.

  The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark and GS mat contributions. The cost of the handover and dispatch of the test samples for storage on the client's premises are more by the client against will be liable for the loss of test samples or reference samples from the laboratories or warehouses of TUV Rheinland only in case of gross negligence.

- Ination of the contract

  Nowthstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to terminate the contract in set entitley or, in the case of services combined in one contract, each of the combined parts of the contract in set entitley or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the contract individually and individual cases.

  In the overt of any serious missinguesentation, be it by intentional finand or grootsy negligent in contract does not belong to the insurance coverage applicable to TÜV Rheinland and TÜV Rheinland and TÜV Rheinland and the entities or alumps and unexidated power data control in contract does

- Majoura\*

  Majour

- hip The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the

- The Parties are bound to perform their contractual duties even if events have rendered performance more ones than could reasonably have been anticipated at the time of the conclusion of the Monthitstanding paragraph 1 of this Clause, where a Party proves that:

  (a) the continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract and that its corresponders, the Parties are (b) it could not reasonably here aexided or overcome the event or its engolistic elementate contractual terms which reasonably allow to overcome the consequences of the event.

  Where Clause 182 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph, the Party mixed pits Clause is entitled to terminate the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the other.

- invalidity, written form, place of jurisdiction and dispute resolution.

  All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 17.1. Should one or several of the provisions under the contract and/or less terms and conditions be Should one or several of the provisions under the contract and/or less terms and conditions to the state of the several orders of the several orders and the content of the results provision in legal and commercial terms.

  Unless otherwise stipulated in the contract, the governing law of the contract and these terms and conditions shall be chosen following the rules as below.

  Unless otherwise stipulated in the contract, the governing law of the contract and the settlems and conditions shall be chosen following the rules as below.

  It is not the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.

  It TUV Rheeland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China. 19.2 19.3

- ITUV Rheritiand in question is legally registered and existing in 1-mm.

  The hereby agree that the contract and these terms and conditions shall be governed by the laws of Takwar.

  It TOV Rheritind in question is legally registered and existing in Hong Kong, the contracting is TOV Rheritind in the contract and these terms and conditions shall be governed by the laws of Hong Kong.

  Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiations.

  Unless otherwise seputated in the contract, if no cellement or no agreement in respect of the Unless otherwise seputated in the contract, and the contract and the state of the straing of the dispute, the dispute shall be submitted:

  In the case of TUV Rheritation in question being legally registered and existing in the People's Republic of China, to China International Economic and Trada Arbitration Commission (CETAC) submitted. The arbitration shall take place in Beijing, Shenghai, Shenchen or Chongqing as appropriately chosen by the claiming party, in the case of TUV Rheritation for question being legally registered and existing in Takwan, to Chinese Arbitration Association, Tages to be arbitrated in accordance with is then current Rules in the case of TUV Rheritation for legally registered and existing in Takwan, to Chinese Arbitration Association. Tages to be arbitrated in accordance with is then current Rules in the case of TUV Rheritation for legally registered and existing in Toky Rong, to Hong Kong, to Hong Kong to Hong Kong, to Hong Kong, to Hong Kong to Hong Ko