お客様各位

資料中の「ラピスセミコンダクタ」等名称の ラピステクノロジー株式会社への変更

2020 年 10 月 1 日をもって、ラピスセミコンダクタ株式会社の LSI 事業部門は、ラピステクノロジー株式会社に分割承継されました。従いまして、本資料中にあります「ラピスセミコンダクタ株式会社」、「ラピスセミ」、「ラピス」といった表記に関しましては、全て「ラピステクノロジー株式会社」に読み替えて適用するものとさせていただきます。なお、会社名、会社商標、ロゴ等以外の製品に関する内容については、変更はありません。以上、ご理解の程よろしくお願いいたします。

2020年10月1日
ラピステクノロジー株式会社

Dear customer

LAPIS Semiconductor Co., Ltd. ("LAPIS Semiconductor"), on the 1st day of October, 2020, implemented the incorporation-type company split (shinsetsu-bunkatsu) in which LAPIS established a new company, LAPIS Technology Co., Ltd. (“LAPIS Technology”) and LAPIS Technology succeeded LAPIS Semiconductor’s LSI business.

Therefore, all references to "LAPIS Semiconductor Co., Ltd.", "LAPIS Semiconductor" and/or "LAPIS" in this document shall be replaced with "LAPIS Technology Co., Ltd."

Furthermore, there are no changes to the documents relating to our products other than the company name, the company trademark, logo, etc.

Thank you for your understanding.

LAPIS Technology Co., Ltd.
October 1, 2020

2019 年 4 月 18 日
SD00000288

環　境　デ　ー　タ
Environmental Data

製品名/Product name：ML5243-002TDZ0ATL

本仕様は上記の商品についての仕様です、ラピスでは同等商品で細部の仕様に違いのある複数の商品が存在する場合があります、本仕様に基づきご発注、サンプルご要求等される場合は上記商品名を末尾まで全てご指定ください。This spec sheet is for product above name, LAPIS have more than 1 products name in case there are multi products which have different spec in detail. Please order by full name above, when you send purchase order or sample order.

構成/ Composition

本書は、下記の通りの構成になっています。/This document is composed of the following.

データの名称 Data Name
成分表/ List of ingredient substances
RoHS 適合保証書/RoHS Certificate of Compliance
Reach 適合保証書/Reach Certificate of Compliance

ラピスセミコンダクタ株式会社/LAPIS Semiconductor Co., Ltd.

ご注意

1) 本資料の記載内容は改良などのため予告なく変更することがあります。
2) 本資料は製品のご紹介資料です。ご使用に際しては、別途最新の仕様書を必ずご請求のうえ、ご確認ください。
3) ラピスセミコンダクタは常に品質・信頼性の向上に取り組んでおりますが、半導体製品は種々の要因で故障・誤作動する可能性があります。万が一、本製品が故障・誤作動した場合であっても、その影響により人身事故、火災損害等が起こらないようご使用機器でのディレーティング、冗長設計、延焼防止、バックアップ、フェイルセーフ等の安全確保をお願いします。定格を超えたご使用や使用上の注意書が守られていない場合、いかなる責任もラピスセミコンダクタは負うものではありません。

4) 本資料に記載されております応用回路例やその定数などの情報につきましては、本製品の標準的な動作や使い方を説明するものです。したがいまして、量産設計をされる場合には、外部諸条件を考慮していただきますようお願いいたします。
5) 本資料に記載されております技術情報は、本製品の代表的動作および応用回路例などを示したものであり、それをもって、当該技術情報に関するラピスセミコンダクタまたは第三者の知的財産権その他の権利を許諾するものではありません。したがいまして、上記技術情報の使用に起因して第三者の権利にかかわる紛争が発生した場合、ラピスセミコンダクタはその責任を負うものではありません。
6) 本製品は、一般的な電子機器（AV 機器、OA 機器、通信機器、家電製品、アミューズメント機器など）および本資料に明示した用途への使用を意図しています。
7) 本資料に掲載されております製品は、耐放射線設計はなされておりません。
8) 本製品を下記のような特に高い信頼性が要求される機器等に使用される際には、ラピスセミコンダクタへ必ずご連絡の上、承諾を得てください。・輸送機器（車載、船舶、鉄道など）、幹線用通信機器、交通信号機器、防災・防犯装置、安全確保のための装置、医療機器、サーバー、太陽電池、送電システム
9) 本製品を極めて高い信頼性を要求される下記のような機器等には、使用しないでください。・航空宇宙機器、原子力制御機器、海底中継機器
10) 本資料の記載に従わないために生じたいかなる事故、損害もラピスセミコンダクタはその責任を負うものではありません。
11) 本資料に記載されております情報は、正確を期すため慎重に作成したものですが、万が一、当該情報の誤り・誤植に起因する損害がお客様に生じた場合においても、ラピスセミコンダクタはその責任を負うものではありません。
12) 本製品のご使用に際しては、RoHS 指令など適用される環境関連法令を遵守の上ご使用ください。お客様がかかる法令を遵守しないことにより生じた損害に関して、ラピスセミコンダクタは一切の責任を負いません。本製品の RoHS 適合性などの詳細につきましては、セールス･オフィスまでお問合せください。
13) 本製品および本資料に記載の技術を輸出又は国外へ提供する際には、「外国為替及び外国貿易法」、「米国輸出管理規則」など適用される輸出関連法令を遵守し、それらの定めにしたがって必要な手続を行ってください。
13) 本資料の一部または全部をラピスセミコンダクタの許可なく、転載・複写することを堅くお断りします。

Notes

1) The information contained herein is subject to change without notice.
2) This is product introduction sheet, before you use our products, please contact our sales representative and verify the latest specifications
3) Although LAPIS Semiconductor is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors. Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. LAPIS Semiconductor shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by LAPIS Semiconductor.
4) Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.
5) The technical information specified herein is intended only to show the typical functions of the Products and examples of application circuits for the Products. No license, expressly or implied, is granted hereby under any intellectual property rights or other rights of LAPIS Semiconductor or any third party with respect to the information contained in this document; therefore LAPIS Semiconductor shall have no responsibility whatsoever for any dispute, concerning such rights owned by third parties, arising out of the use of such technical information.
6) The Products are intended for use in general electronic equipment (i.e. AV/OA devices, communication, consumer systems, gaming/entertainment sets) as well as the applications indicated in this document.
7) The Products specified in this document are not designed to be radiation tolerant.
8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a LAPIS Semiconductor representative: transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.
9) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.
10) LAPIS Semiconductor shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.
11) LAPIS Semiconductor has used reasonable care to ensure the accuracy of the information contained in this document. However, LAPIS Semiconductor does not warrant that such information is error-free and LAPIS Semiconductor shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.
12) Please use the Products in accordance with any applicable environmental laws and regulations, such as the RoHS Directive. For more details, including RoHS compatibility, please contact a ROHM sales office. LAPIS Semiconductor shall have no responsibility for any damages or losses resulting non-compliance with any applicable laws or regulations.
13) When providing our Products and technologies contained in this document to other countries, you must abide by the procedures and provisions stipulated in all applicable export laws and regulations, including without limitation the US Export Administration Regulations and the Foreign Exchange and Foreign Trade Act.
14) This document, in part or in whole, may not be reprinted or reproduced without prior consent of LAPIS Semiconductor.

製品含有化学物質一覧

回答No. 21985
回答日 2019/4/17

JEITA 半導体 標準フォーマット

ラピスセミコンダクタ株式会社
品質保証部 品質サービスグループ
責任者　片山　聡裕
記入担当者　大友　篤
同E-mail ohtomo941@mnf.lapis-semi.com
電話 045-476-9219

商品名 ML5243-002TDZ0ATL　　**製品重量(mg)** 80.00

部位	重量(mg)	化学物質群	化学物質	CAS No	使用目的	含有量(mg)	部位含有率(%)	全体含有率(%)
チップ	3.65	シリコンおよび無機化合物	シリコン(Si)	7440-21-3	チップの主材	3.5691	97.7707	4.4614
		砒素及び及びその化合物	ヒ素(As)	7440-38-2	ドーパント	0.0000	0.0008	0.0000
		ホウ素及びその化合物	ホウ素(B)	7440-42-8	ドーパント	0.0004	0.0101	0.0005
		リン及びその化合物	リン(P)	7723-14-0	ドーパント	0.0011	0.0310	0.0014
		チタン及びその化合物	チタン(Ti)	7440-32-6	回路形成	0.0059	0.1611	0.0074
		タングステン及びその化合物	タングステン(W)	7440-33-7	回路形成	0.0588	1.6107	0.0735
		銅及びその化合物	銅(Cu)	7440-50-8	回路形成	0.0001	0.0014	0.0001
		アルミニウム及びその化合物	アルミニウム(Al)	7429-90-5	回路形成	0.0151	0.4142	0.0189
チップの接合部	0.59	銀及びその化合物	銀(Ag)	7440-22-4	チップ接合（主成分）	0.4557	77.0000	0.5697
		樹脂	アクリル樹脂	ー	チップ接合（主成分）	0.1184	19.9993	0.1480
		樹脂	エポキシ樹脂等	ー	チップ接合（主成分）	0.0178	3.0007	0.0222
リードフレーム	39.09	銅及びその化合物	銅(Cu)	7440-50-8	合金成分	37.4286	95.7592	46.7857
		鉄及びその化合物	鉄(Fe)	7439-89-6	合金成分	0.8811	2.2543	1.1014
		銀及びその化合物	銀(Ag)	7440-22-4	銀メッキ（物性向上）	0.7764	1.9865	0.9706
ボンディングワイヤ	0.14	金及びその化合物	金(Au)	7440-57-5	チップと外部端子配線（主成分）	0.1407	100.0000	0.1759
外部端子メッキ部	2.25	スズ及びその化合物	スズ(Sn)	7440-31-5	端子メッキ材料（主成分）	2.2541	100.0000	2.8176
パッケージ樹脂	34.28	樹脂	エポキシ樹脂等	ー	封止材料（主成分）	4.6959	13.7000	5.8696
		リン及びリン化合物	有機リン化合物	ー	樹脂硬化剤	0.3428	1.0000	0.4285
		シリカ	シリカ(SiO2)	60676-86-0	封止材料（主成分）	29.1352	85.0000	36.4191
		カーボン	カーボン(C)	1333-86-4	封止材料（着色）	0.1028	0.3000	0.1285
		その他						
				含有量合計		80.0000		100.0000
				製品重量－含有量合計		0.00		

ROHM GROUP
LAPIS
SEMICONDUCTOR

Certificate of Compliance
RoHS (Restriction of Hazardous Substances)

This document certifies that this product is in compliance with:

*Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EU RoHS Directive)
**Commission Delegated Directive 2015/863/EU of 31 March 2015 amending Annex Ⅱ to 2011/65/EU (shown above) as regards the list of restricted substances
***Management Methods for Controlling Pollution Caused by Electronic Information Products (China RoHS)

The stated components are deemed as compliant as accord to definitions given in the directives.

The hazardous Substances are:

1.	Cadmium (Cd)	< 100ppm
2.	Lead (Pb)	< 1000ppm
3.	Mercury (Hg)	< 1000ppm
4.	Hexavalent Chromium (Cr VI)	< 1000ppm
5.	Polybrominated Biphenyls (PBBs)	< 1000ppm
6.	Polybrominated Diphenyl Ethers (PBDEs)	< 1000ppm
7.	Bis (2-ethylhexyl) phthalate (DEHP)	< 1000ppm
8.	Dibutyl phthalate (DBP)	< 1000ppm
9.	Benzyl butyl phthalate (BBP)	< 1000ppm
10.	Diisobutyl phthalate (DIBP)	< 1000ppm

LAPIS Semiconductor Co., Ltd.

Quality Service Group, Quality Assurance Division

Authorized Person:

Signature: M. Umetani

Date: April 11, 2019

ROHM GROUP
LAPIS
SEMICONDUCTOR

Certification of EU REACH Compliance

We hereby guarantee that the this product is compliant to EU REACH regulation.

Object products do not contain the SVHC substances listed in Appendix 1 exceed the restricted threshold.

In addition, this guarantee is set within our knowledge as far as we can be acknowledged; in case that the products were found as containing SVHC substances exceed the restricted threshold in the future, we will report our findings immediately.

Sincerely,

LAPIS Semiconductor Co., Ltd.
Quality Service Group, Quality Assurance Division
Authorized Person:
Signature: M. Umetani
Date: April 11, 2019

Appendix 1

List of SVHC Candidates

No.	Substance name	CAS number	EC number
1	Anthracene	120-12-7	204-371-1
2	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	202-974-4
3	Dibutyl phthalate (DBP)	84-74-2	201-557-4
4	Cobalt dichloride	7646-79-9	231-589-4
5	Diarsenic pentaoxide	1303-28-2	215-116-9
6	Diarsenic trioxide	1327-53-3	215-481-4
7	Sodium dichromate	7789-12-0 10588-01-9	234-190-3
8	5-*tert*-butyl-2,4,6-trinitro-*m*-xylene (musk xylene)	81-15-2	201-329-4
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α – HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 3194-55-6 (134237-50-6 134237-51-7 134237-52-8)	247-148-4 221-695-9
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5
12	Bis(tributyltin)oxide (TBTO)	56-35-9	200-268-0
13	Lead hydrogen arsenate	7784-40-9	232-064-2
14	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7
15	Triethyl arsenate	15606-95-8	427-700-2
16	Anthracene oil	90640-80-5	292-602-7
17	Anthracene oil, anthracene paste, distn.Lights	91995-17-4	295-278-5
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9
19	Anthracene oil, anthracene-low	90640-82-7	292-604-8
20	Anthracene oil, anthracene paste	90640-81-6	292-603-2
21	Diisobutyl Phthalate (DIBP)	84-69-5	201-553-2
22	2,4-Dinitrotoluene	121-14-2	204-450-0
23	Coal tar pitch, high temperature	65996-93-2	266-028-2
24	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5
25	Aluminosilicate, Refratory Ceramic Fibres	(JAMP-SN0007)	- Index No. 650-017-00-8

No.	Substance name	CAS number	EC number
26	Zirconia Aluminosilicate, Refratory Ceramic Fibres	(JAMP-SN0055)	- Index No. 650-017-00-8
27	Lead sulfochromate yellow (C.I. Pigment yellow 34)	1344-37-2	34215-693-7
28	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	104235-759-9
29	Lead Chromate	7758-97-6	231-846-0
30	Acrylamide	79-06-1	201-173-7
31	Trichloroethylene	79-01-6	201-167-4
32	Boric acid	10043-35-3 11113-50-1	233-139-2 234-343-4
33	Disodium tetraborate,anhydrous	1330-43-4 12179-04-3 1303-96-4	215-540-4
34	Tetraboron disodium heptaoxide,hydrate	12267-73-1	235-541-3
35	Sodium chromate	7775-11-3	231-889-5
36	Potassium chromate	7789-00-6	232-140-5
37	Ammonium dichromate	7789-09-5	232-143-1
38	Potassium dichromate	7778-50-9	231-906-6
39	Cobalt(II) sulphate	10124-43-3	233-334-2
40	Cobalt(II) dinitrate	10141-05-6	233-402-1
41	Cobalt(II) carbonate	513-79-1	208-169-4
42	Cobalt(II) diacetate	71-48-7	200-755-8
43	2-Methoxyethanol	109-86-4	203-713-7
44	2-Ethoxyethanol	110-80-5	203-804-1
45	Chromium trioxide	1333-82-0	215-607-8
46	Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid	7738-94-5 13530-68-2 (JAMP-SN0071)	231-801-5 236-881-5 -
47	2-Ethoxyethl acetate (2-EEA)	111-15-9	203-839-2
48	Strontium chromate	7789-06-2	232-142-6
49	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich(DIHP)	71888-89-6	276-158-1

No.	Substance name	CAS number	EC number
50	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	271-084-6
51	Hydrazine	302-01-2 7803-57-8	206-114-9
52	1-Methyl-2-pyrrolidone (NMP)	872-50-4	212-828-1
53	1,2,3-Trichloropropane	96-18-4	202-486-1
54	Dichromium tris (chromate)	24613-89-6	246-356-2
55	Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9	234-329-8
56	Pentazinc chromate octahydroxide	49663-84-5	256-418-0
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1
58	Bis(2-methoxyehyl) phthalate (DMEP)	117-82-8	204-212-6
59	2-Methoxyaniline; *o*-Anisidine	90-04-0	201-963-1
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-*tert*-Octylphenol)	140-66-9	205-426-2
61	1,2-Dichloroethane	107-06-2	203-458-1
62	Bis(2-methoxyethyl)ether	111-96-6	203-924-4
63	Arsenic acid	7778-39-4	231-901-9
64	Calcium arsenate	7778-44-1	231-904-5
65	Trilead diarsenate	3687-31-8	222-979-5
66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9
68	Phenolphthalein	77-09-8	201-004-7
69	Lead diazide	13424-46-9	236-542-1
70	Lead styphnate	15245-44-0	239-290-0
71	Lead dipicrate	6477-64-1	229-335-2
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3
73	1,2-dimethoxyethane;ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9
74	Diboron trioxide	1303-86-2	215-125-8
75	Formamide	75-12-7	200-842-0

No.	Substance name	CAS number	EC number
76	Lead(II)bis(methanesulfonate)	17570-76-2	401-750-5
77	TGIC(1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazine-2,4,6-trione)	2451-62-9	219-514-3
78	β-TGIC(1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	423-400-0
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2
81	[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)]	2580-56-5	219-943-6
82	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)]	6786-83-0	229-851-8
83	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)]	561-41-1	209-218-2
84	[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)]	548-62-9	208-953-6
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9
86	Pentacosafluorotridecanoic acid	72629-94-8	276-745-2
87	Tricosafluorododecanoic acid	307-55-1	206-203-2
88	Henicosafluoroundecanoic acid	2058-94-8	218-165-4
89	Heptacosafluorotetradecanoic acid	376-06-7	206-803-4

No.	Substance name	CAS number	EC number
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	(JAMP-SN0081)	-
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	(JAMP-SN0082)	-
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8
93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7	201-604-9
94	Hexahydromethylphathalic anhydride, Hexahydro-4-methylphathalic anhydride, Hexahydro-1-methylphathalic anhydride, Hexahydro-3-methylphathalic anhydride	25550-51-0 19438-60-9 48122-14-1 57110-29-9	247-094-1 243-072-0 256-356-4 260-566-1
95	Methoxy acetic acid	625-45-6	210-894-6
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2
97	Diisopentylphthalate (DIPP)	605-50-5	210-088-4
98	N-pentyl-isopentylphtalate	776297-69-9	-
99	1,2-Diethoxyethane	629-14-1	211-076-1
100	N,N-dimethylformamide; dimethyl formamide	68-12-2	200-679-5
101	Dibutyltin dichloride (DBTC)	683-18-1	211-670-0
102	Acetic acid, lead salt, basic	51404-69-4	257-175-3
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)	1319-46-6	215-290-6
104	Lead oxide sulfate (basic lead sulfate)	12036-76-9	234-853-7
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)	69011-06-9	273-688-5
106	Dioxobis(stearato)trilead	12578-12-0	235-702-8
107	Fatty acids, C16-18, lead salts	91031-62-8	292-966-7

No.	Substance name	CAS number	EC number
108	Lead bis(tetrafluoroborate)	13814-96-5	237-486-0
109	Lead cynamidate	20837-86-9	244-073-9
110	Lead dinitrate	10099-74-8	233-245-9
111	Lead oxide (lead monoxide)	1317-36-8	215-267-0
112	Lead tetroxide (orange lead)	1314-41-6	215-235-6
113	Lead titanium trioxide	12060-00-3	235-038-9
114	Lead Titanium Zirconium Oxide	12626-81-2	235-727-4
115	Pentalead tetraoxide sulphate	12065-90-6	235-067-7
116	Pyrochlore, antimony lead yellow	8012-00-8	232-382-1
117	Silicic acid, barium salt, lead-doped	68784-75-8	272-271-5
118	Silicic acid, lead salt	11120-22-2	234-363-3
119	Sulfurous acid, lead salt, dibasic	62229-08-7	263-467-1
120	Tetraethyllead	78-00-2	201-075-4
121	Tetralead trioxide sulphate	12202-17-4	235-380-9
122	Trilead dioxide phosphonate	12141-20-7	235-252-2
123	Furan	110-00-9	203-727-3
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2
125	Diethyl sulphate	64-67-5	200-589-6
126	Dimethyl sulphate	77-78-1	201-058-1
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7
128	Dinoseb	88-85-7	201-861-7
129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6
132	4-methyl-*m*-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1
133	6-methoxy-*m*-toluidine (*p*-cresidine)	120-71-8	204-419-1
134	Biphenyl-4-ylamine	92-67-1	202-177-1
135	*o*-aminoazotoluene	97-56-3	202-591-2
136	*o*-Toluidine; 2-Aminotoluene	95-53-4	202-429-0

No.	Substance name	CAS number	EC number
137	N-methylacetamide	79-16-3	201-182-6
138	1-bromopropane; *n*-propyl bromide	106-94-5	203-445-0
139	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9
140	Cadmium oxide	1306-19-0	215-146-2
141	Ammonium pentadecafluorooctaboate (APFO)	3825-26-1	223-320-4
142	Cadmium	7440-43-9	231-152-8
143	4-Nonylphenol, branched and linear, ethoxylated	(JAMP-SN0064)	-
144	Dipentyl phthalate (DPP)	131-18-0	205-017-9
145	Cadmium sulphide	1306-23-6	215-147-8
146	Dihexyl phthalate	84-75-3	201-559-5
147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4
148	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	217-710-3
149	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	202-506-9
150	Lead di(acetate)	301-04-2	206-104-4
151	Trixylyl phosphate	25155-23-1	246-677-8
152	Cadmium chloride	10108-64-2	233-296-7
153	1,2-Benzenedicarboxylic acid, dihexylester, branched and linear	68515-50-4	271-093-5
154	Sodium peroxometaborate	7632-04-4	231-556-4
155	Sodium perborate; perboric acid, sodium salt	15120-21-5 13517-20-9 11138-47-9 37244-98-7 12040-72-1 -	239-172-9 - - 234-390-0 - -
156	Cadmium fluoride	7790-79-6	232-222-0

No.	Substance name	CAS number	EC number
157	Cadmium sulphate	10124-36-4 31119-53-6	233-331-6
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	239-622-4
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)	(JAMP-SN0084)	-
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
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 stereoisomers of [1] and [2] or any combination thereof]	(JAMP-SN0085)	-
164	Nitrobenzene	98-95-3	202-716-0
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1
167	1,3-propanesultone	1120-71-4	214-317-9
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononanoic acid) and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	201-245-8

No.	Substance name	CAS number	EC number
171	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]	(JAMP-SN0089)	-
172	*p*-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9
173	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	- 206-400-3 221-470-5
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4 (JAMP-SN0090)	206-587-1 -
175	Chrysene	218-01-9 1719-03-5	205-923-4
176	Benz[a]anthracene	56-55-3 1718-53-2	200-280-6
177	Cadmium nitrate	10022-68-1 10325-94-7	233-710-6
178	Cadmium hydroxide	21041-95-2	244-168-5
179	Cadmium carbonate	513-78-0	208-168-9
180	Dodecachloropentacyclo[12.2.1.1^{6,9}.0^{2,13}.0^{5,10}]octadeca-7,15-diene (“Dechlorane Plus”™) covering any of its individual anti- and syn-isomers or any combination thereof	13560-89-9 135821-74-8 135821-03-3	236-948-9
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(4-HPbl)]	93925-00-9	300-298-5
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride TMA (Trimellitic Anhydride)	552-30-7	209-008-0
183	Benzo[ghi]perylene	191-24-2	205-883-8
184	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9
185	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9
186	Disodium octaborate	12008-41-2	234-541-0
187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8

No.	Substance name	CAS number	EC number
188	Ethylenediamine (EDA)	107-15-3	203-468-6
189	Lead	7439-92-1	231-100-4
190	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7
191	Terphenyl, hydrogenated	61788-32-7	262-967-7
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1
193	Benzo[k]fluoranthene	207-08-9	205-916-6
194	Fluoranthene	206-44-0	205-912-4
195	Phenanthrene	85-01-8	201-581-5
196	Pyrene	129-00-0	204-927-3
197	1,7,7-trimehtyl-3-(phenylmethylene)bicycle [2,2,1]heptan-2-one(3-benzylidene camphor)	15087-24-8	239-139-9