

## **BONDLINE REACH COMPLIANCE**

### **(Registration, Evaluation, Authorisation and Restriction of Chemicals)**

The European REACH Directive (DR/1907/2006EC) has a significant impact on all manufacturers and importers of chemical substances in the European Union.

Bondline Electronics Ltd are neither a manufacturer nor importer of chemical substances, it is regarded as a "Downstream user" and will not be pre-registering any substances itself. We have taken the necessary steps to make sure that all of our suppliers are aware of their obligations under REACH.

Since REACH became law in June 2007, we have not received any negative comments from any of our suppliers regarding future registration. If we do receive any such information that might affect any product supplied to your company, we will immediately be in touch. The REACH Directive also includes a list of Substances of Very High Concern (247 SVHC). We have received information regarding these substances from all of our suppliers. We are able to confirm that the majority finished products supplied by Bondline Electronics do not knowingly contain in a concentration above 0.1% weight by weight (w/w) any SVHC in the Candidate list published by European Chemicals Agency (ECHA) or Annex XVII of the REACH regulation (1907/2006/EC) – including list update **20<sup>th</sup> January 2025**

The exceptions to this are

1. "Non Resistant" Thermal papers/tags including the name 953, 963 or 983. These grades contain the chemical 4,4'-isopropylidenediphenol (CAS 80-05-7) also known as Bisphenol A (BPA) in a concentration above 0.1% (w/w). A full list of affected grades is listed in the attached (Appendix 1).
2. Self adhesive products containing the adhesive CWW20. This adhesive contains (NPEO) Nonyl Phenol Ethoxylate (CAS 68412-54-4) in a concentration above 0.1% (w/w). A full list of affected grades is listed in the attached (Appendix)

Please see table below on following pages:



The substances added to the SVHC Candidate List effective January 20<sup>th</sup> 2025 are shown in the table below:

Substance Name	CAS # (Chemical Abstracts Service)	Where used (examples)
<b>Bis(2-(2-methoxyethoxy)ethyl) ether</b>  Also called tetraglyme, Tetraethylene glycol dimethyl ether, and TetraEGDME	143-24-8	<ul style="list-style-type: none"> <li>- In lithium-ion battery technology;</li> <li>- Manufacture of soldering fluxes and solder pastes, of computers, electronics, and optical products;</li> <li>- Production of binders for paints, adhesives;</li> <li>- Used in paints and adhesive removers;</li> <li>- HFC/CFC lubricant in automotive air conditioning, compressors;</li> <li>- Printing and reproduction of recorded media,</li> <li>- Solvent used in flue gas cleaning systems;</li> <li>- Volatile organic compounds (VOC) extractors, from solid wastes;</li> <li>- Additive for the fixation of methylated methylolmelamine resins in durable-press cotton and cellulosic fabrics</li> </ul> <p>Source: <a href="https://echa.europa.eu/documents/10162/ec7ae316-5a0d-0c44-dbc0-e517db9eded0">https://echa.europa.eu/documents/10162/ec7ae316-5a0d-0c44-dbc0-e517db9eded0</a></p>
<b>Diocetyl tin 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</b>	3648-18-8 and others	<ul style="list-style-type: none"> <li>- Widespread use for the manufacture of plastic products, fabrics, textiles, apparel, and leather;</li> <li>- Stabilizers and catalysts in the production of plastics, rubber, adhesives, and sealants, coatings and paints, thinners, paint removers, fillers, putties, plasters, modeling clay, metal surface treatment products, non-metal-surface treatment products, ink and toners, products such as pH regulators, flocculants, precipitants, neutralization agents, leather treatment products, paper, and board treatment products, polishes and wax blends, polymer preparations and compounds, textile dyes and impregnating products as well as washing and cleaning products.</li> </ul> <p>Source: <a href="https://echa.europa.eu/documents/10162/8326d2d9-ad73-ab30-4ea9-d284bd26dd91">https://echa.europa.eu/documents/10162/8326d2d9-ad73-ab30-4ea9-d284bd26dd91</a></p>

NO.	SUBSTANCE	CAS NO. / EC NO	CLASSIFICATION	POTENTIAL USES
1	1,4-dioxane	204-661-8 / 123-91-1	Requirement <sup>1</sup>	Carc. 1B Ev. C (human health and environment)
2	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)	221-967-7 / 3296-90-0  253-057-0 / 36483-57-5, 1522-92-5  202-480-9 / 96-13-9	Carc. 1B	<ul style="list-style-type: none"> <li>– In polymer production manufacture of plastics products</li> <li>– Reactive flame-retardant intermediate</li> </ul>
3	2-(4-tert-butylbenzyl)propional dehyde and its individual stereoisomers	- / -	Repr. 1B	<ul style="list-style-type: none"> <li>– Fragrance ingredient in cosmetics, personal care products, washing and cleaning products, air care products and biocidal products.</li> </ul>
4	4,4'-(1-methylpropylidene)bisphenol	201-025-1 / 77-40-7	ED (human health and environment)	<ul style="list-style-type: none"> <li>– Manufacture of phenolic and polycarbonate resins</li> <li>– Corrosion inhibitors to coat cans in the food industry</li> </ul>
5	Glutaral	203-856-5 / 111-30-8	Respiratory sensitising properties	<ul style="list-style-type: none"> <li>– Biocide, e.g. preservative for paper</li> <li>– Fire extinguishing agents</li> <li>– Anti-foaming agents</li> <li>– In paint and varnish</li> <li>– Leather tanning</li> <li>– Use in x-ray film processing</li> </ul>
6	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 vPvB	<ul style="list-style-type: none"> <li>– Flame-retardants and plasticizer additives in plastics, rubber, textiles, coatings, paints and varnishes, adhesives and sealants</li> <li>– Additives in coolants and lubricants</li> </ul>
7	Orthoboric acid, sodium salt	237-560-2 / 13840-56-7	Repr. 1B	<ul style="list-style-type: none"> <li>– Corrosion inhibitor</li> </ul>
8	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)	- / -	Repr. 1B ED (human health and environment)	<ul style="list-style-type: none"> <li>– Chemical intermediate for lubricant additive materials and of fuel system cleaners</li> <li>– Manufacture of rubber products and plastic products</li> <li>– Monomer for phenol/formaldehyde resins and ink resins</li> <li>– Intermediate for the production of special resins, paints, varnishes and coating resins</li> </ul>

1	N-(hydroxymethyl)acrylamide	213-103-2	924-42-5	Carcinogenic; Mutagenic	As a monomer for polymerisation, as a fluoroalkyl acrylate copolymer, and in paints and coatings.
---	-----------------------------	-----------	----------	-------------------------	---

**REACH SVHC list is not a static list and it is updated frequently. Up to 20<sup>th</sup> January 2025, there are 247 substances/entries on the SVHC candidate list.**

<b><u>diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</u></b>	278-355-8
<b><u>bis(4-chlorophenyl) sulphone</u></b>	201-247-9

- **6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol** (EC# 204-327-1, CAS# 119-47-1)
- **tris(2-methoxyethoxy)vinylsilane** (EC# 213-934-0, CAS# 1067-53-4)
- **(±)-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)** (4-MBC is a group of substances;
- **S-(tricyclo(5.2.1.0<sup>2,6</sup>)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate** (EC# 401-850-9, CAS# 255881-94-8)

235	<u>bis(4-chlorophenyl) sulphone</u>	201-247-9	80-07-9	14-06-23
234	<u>diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</u>	278-355-8	75980-60-8	14-06-23

233	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	253-692-3	37853-59-1
232	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	201-236-9	79-94-7
231	4,4'-sulphonyldiphenol	201-250-5	80-09-1
230	Barium diboron tetraoxide	237-222-4	13701-59-1
229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	-	-
228	Isobutyl 4-hydroxybenzoate	224-208-8	4247-02-3
227	Melamine	203-615-4	108-78-1
226	Perfluoroheptanoic acid and its salts	-	-
225	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	473-390-7	-

Substance Name	CAS Number	Reason for Inclusion	Examples of Use
2,4,6-tri-tert-butylphenol	732-26-3	Toxic for reproduction (Article 57c)  Persistent, bioaccumulative and toxic (PBT)  (Article 57d)	Manufacture of another substance; formulation of mixtures and in fuel products.
2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol	3147-75-9	Very persistent and very bioaccumulative (vPvB)  (Article 57e)	Air care products, coating products, adhesives and sealants, lubricants and greases, polishes and waxes and washing and cleaning products.
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4	Toxic for reproduction (Article 57c)	Inks and toners, coating products.
Bumetrizole	3896-11-5	vPvB  (Article 57e)	Coating products, adhesives and sealants and washing and cleaning products.
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol		vPvB  (Article 57e)	Adhesives and sealants, coating products, fillers, putties, plasters, modelling clay, inks and toners and polymers.
Dibutyl phthalate (updated entry)	84-74-2	Endocrine disrupting properties  (Article 57(f) – environment)	Metal working fluids, washing and cleaning products, laboratory chemicals and polymers.

Bis( $\alpha,\alpha$ -dimethylbenzyl) peroxide 201-279-3 80-43-3 Toxic for reproduction (Article 57c) Flame retardant

Substance name	EC number	CAS number	Reason for inclusion	Examples of uses
6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid	701-118-1	2156592-54-8	Toxic for reproduction (Article 57c)	Lubricants, greases, release products and metal working fluids
O,O,O-triphenyl phosphorothioate	209-909-9	597-82-0	Persistent, bioaccumulative and toxic, PBT (Article 57d)	Lubricants and greases
Octamethyltrisiloxane	203-497-4	107-51-7	Very persistent, very bioaccumulative, vPvB (Article 57e)	Manufacture and/or formulation of: cosmetics, personal/health care products, pharmaceuticals, washing and cleaning products, coating and non-metal surface treatment and in sealants and adhesives
Perfluamine	206-420-2	338-83-0	Very persistent, very bioaccumulative, vPvB (Article 57e)	Manufacture of electrical, electronic and optical equipment and machinery and vehicles
Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	421-820-9	192268-65-8	Persistent, bioaccumulative and toxic, PBT (Article 57d)	No active registrations
<b>Updated entry:</b>				
Tris(4-nonylphenyl, branched and linear) phosphite	-	-	Endocrine disrupting properties (Article 57(f) – environment)	Polymers, adhesives, sealants and coatings