PRIMARK®

Restricted Substances List

February 2018

Primark's Commitment to Zero Use and Discharge of Hazardous Chemicals

UPDATES SINCE PREVIOUS VERSION: Due to the significant change of including both the Product Restricted Substances List (PRSL) and Manufacturing Restricted Substances List (MRSL) in this updated document, individual changes are not listed and all suppliers are required to review this document in full and sign the updated 'Primark Chemical Policy' in Appendix. 2.

As an international retailer, Primark is committed to reducing the environmental impact of our products at every stage of their life. We recognise the importance of reducing the environmental impact throughout the manufacturing process, and for that reason, we are committed to continuously improving our chemical management programme, in line with evolving industry standards, product specifications and technological developments.

To achieve this, Primark committed to working with other brands, retailers and industry stakeholders, to phase out hazardous chemicals from our supply chain and to achieve the goal of 'zero discharge' by 2020. Further details on Primark's Detox Commitment can be found here.

In line with this commitment, Primark's Restricted Substances List (RSL) has been updated to align with the ZDHC Manufacturing Restricted Substances List (MRSL).

This updated document, now details Primark's chemical restriction limits for:

1. Chemical formulations used within the manufacturing process **(MRSL limits)**

2. Any finished product and/or raw material used within Primark products **(PRSL limits)**

Wherever possible, the substances and limits defined by ZDHC have been maintained. However, additional substances were included to align with our existing product compliance limits and in such cases, Primark MRSL limits have been defined. The MRSL limits constitute a full ban on the intentional use of these substances. Primark applies acceptable limits in the process of elimination.

It is the supplier's responsibility to ensure that all Primark products meet the defined limits set out in this document. Compliance is regularly assessed through surveillance testing.

All Primark supplier's and manufacturing facilities must commit to these requirements and return a signed copy of the updated 'Primark Chemical Policy' in Appendix. 2, to the Primark Environmental Sustainability Team: environmental@primark.co.uk

This document will be reviewed every 12 months to support elimination beyond the Detox 11 priority chemicals.

For any assistance, please notify Primark by way of email: environmental@primark.co.uk

REMINDER: Primark has had an absolute ban on the use and discharge of Per and Polyfluorinated chemicals (PFC's), Alkylphenols/Alkylphenol-ethoxylates (APEO's) and Phthalates, since 2015.

Fig. 1 Matrix - Product Material Type vs. Chemical Substance

The below matrix shows 19 priority chemical substances (beyond the Detox 11 priority chemicals) that Primark has highlighted for elimination from its supply chain, and the likelihood of finding these chemical substances within the material types used within Primark production. Red: extremely likely to be found, Amber: moderately likely to be found, Green: unlikely to be found. Suppliers should use this matrix as a reference guide for their own material testing due diligence and should confirm with their manufacturing facilities and chemical manufacturers that the substance groups in red are NOT to be used for Primark production.

**This matrix is intended to be used as a reference guide only*

Chemical Substance	Natural/ Cellulosic Textiles	Synthetic Textiles	Leather	Soft Plastics (inc. Plastisol prints & synthetic leather)	Hard Plastics	Surface Coatings	Rubber	Metallic	Paper & Board	Wooden Items	Ceramics	Glass	Oils & Waxes	Glues & Adhesives	Electronics	Foams (inc. EVA)
Formaldehyde																
Dimethylfumarate																
Alkylphenol & Nonylphenol																
Alkylphenol & Alkylphenol Ethoxylates																
Azo Dyes forming Restricted amines																
Chlorobenzenes																
Chlorotoluenes																
Chlorophenols																
Dyes with carcinogenic or similar concerns																
Dyes – Disperse & Sensitising																
Flame Retardants																
Per & Poly Fluorinated Chemicals																
Metals																
Phthalates																
Polycyclic Aromatic Hydrocarbons																
Chlorinated Solvents																
Organotin Compounds																
Glycols																
Volatile Organic Compounds (VOCs)																

Restricted Substance Limits

The table on page 4 onwards, summarises the restricted substance limits for Primark production.

Limits are split by:

1. Manufacturing Restricted Substances List **(MRSL)** limits: for chemical products
2. Product Restricted Substances List **(PRSL)** limits: for Primark goods for resale

Primark suppliers are required to apply these limits to all upstream supply chain manufacturing facilities for Primark production. To manage compliance, suppliers are required to follow the checklist as tabled below.

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Supplier Checklist		
Policy	All suppliers must sign and return the updated 'Primark Chemical Policy' in Appendix. 2 of this document and send a signed copy to: environmental@primark.co.uk	
Policy	Suppliers must communicate the Primark RSL 2018 document to all upstream manufacturing facilities and they must also sign the 'Primark Chemical Policy' in Appendix. 2. Signed copies of the 'Primark Chemical Policy' for all manufacturing facilities, including their own and the manufacturing facilities of their suppliers, must be kept on file.	
Management	Each supplier and manufacturing facility must have a nominated representative for the ownership of environmental health and safety and responsible for chemical management	
Management	All manufacturing facilities must maintain an up-to-date chemical inventory using the Primark Chemical Inventory List (CIL) format and guidelines in Appendix. 3 of this document.	
Management	Suppliers must ensure that all manufacturing facilities implement the requirements of the guidelines document in Appendix 3. In particular, that they: • Maintain an up-to-date chemical inventory list • Purchase only MRSL compliant chemicals *(either supported by a declaration from their chemical manufacturer, or listed as compliant within the ZDHC Chemical Gateway)* • Perform regular chemical management training	
Monitor/Review	Suppliers and manufacturing facilities must perform regular due diligence testing, especially in case of major changes in raw materials, to assure RSL compliance	
Monitor/Review	Manufacturing facilities must test wastewater bi-annually (in accordance with Primark's Wastewater Testing Expectations document) to confirm compliance, and upload their test reports to the ZDHC Gateway – Wastewater module. It is expected that manufacturing facilities will discharge wastewater that is, as a minimum, legally compliant and meets or exceeds the foundational limits for conventional parameters in Table 1 of the ZDHC Wastewater Guidelines	

**All limits detailed in the table below, are in parts per million (ppm), unless otherwise stated*

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Phthalates	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	sum 250	1000
	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	sum 250	1000
	1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0	sum 250	1000
	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	sum 250	1000
	Bis-(2-methoxyethyl) phthalate (DMEP)	117-82-8	sum 250	1000
	Butylbenzyl phthalate (BBP)	85-68-7	sum 250	1000
	Dimethyl phthalate (DMP)	131-11-3	sum 250	1000
	Diethyl phthalate (DEP)	84-66-2	sum 250	1000
	Dibutyl phthalate (DBP)	84-74-2	sum 250	1000
	Dinonyl phthalate (DNP)	84-76-4	sum 250	1000
	Diethylhexyl phthalate (DEHP)	117-81-7	sum 250	1000
	Diisobutyl phthalate (DIBP)	84-69-5	sum 250	1000
	Diisopentyl phthalate (DIPP)	605-50-5	sum 250	1000
	Diisooctyl phthalate (DIOP)	27554-26-3	sum 250	1000
	Diisononyl phthalate (DINP)	28553-12-0	sum 250	1000
		68515-48-0	sum 250	1000
	Diisodecyl phthalate (DIDP)	26761-40-0	sum 250	1000
		68515-49-1	sum 250	1000
	Di-n-propyl phthalate (DPRP)	131-16-8	sum 250	1000
	Di-n-pentyl phthalate (DnPP)	131-18-0	sum 250	1000
	Di-n-hexyl phthalate (DnHP)	84-75-3	sum 250	1000
	Di-n-octyl phthalate (DnOP)	117-84-0	sum 250	1000
	Di-cyclohexyl phthalate (DCHP)	84-61-7	sum 250	1000
	n-Pentyl-isopentyl phthalate	776297-69-9	sum 250	1000

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Alkyphenol & Alkylphenol ethoxylates	Nonylphenol, mixed isomers	25154-52-3	250	sum 10
	Octylphenol	27193-28-8	250	sum 10
	Octylphenol, ethoxylated	9036-19-5	500	sum 100
	Octyl phenol ethoxylate, branched 9.5EO	68987-90-6	500	sum 100
	Polyoxyethylated octyl phenol	9002-93-1	500	sum 100
	Polyoxyethylated nonyl phenol	9016-45-9	500	sum 100
	Polyoxyethylated p-nonyl phenol	26027-38-3	500	sum 100
	Isononylphenol	11066-49-2	250	sum 10
	4-Nonylphenol	104-40-5	250	sum 10
	4-Nonylphenol, branched	84852-15-3	250	sum 10
	4-Octylphenol	1806-26-4	250	sum 10
	4-tert-Octylphenol	140-66-9	250	sum 10
	Isononylphenol, ethoxylated	37205-87-1	500	sum 100
	Nonylphenol, branched, ethoxylated	68412-54-4	500	sum 100
	4-Nonylphenol, branched, ethoxylated	127087-87-0	500	sum 100
Glycols	Bis(2-methoxyethyl)-ether	111-96-6	50	10
	2-Ethoxyethanol	110-80-5	50	10
	2-Ethoxyethyl acetate	111-15-9	50	10
	Ethylene glycol dimethyl ether	110-71-4	50	10
	2-Methoxyethanol	109-86-4	50	10
	2-Methoxyethylacetate	110-49-6	50	10
	2-Methoxypropylacetate	70657-70-4	50	10
	Triethylene glycol dimethyl ether	112-49-2	50	10

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Flame Retardants	2,2-Bis(bromomethyl)-1,3-propanediol	3296-90-0	250	10
	Bis(2,3-dibromopropyl)phosphate	5412-25-9	250	10
	Paraffin, C10-C13, chlorinated (SCCP)	85535-84-8	50 (Textile)	5
	Paraffin, C10-C13, chlorinated (SCCP)	85535-84-8	250 (Leather)	5
	Hexabromocyclododecane	3194-55-6	250	10
	Tetrabromobisphenol A	79-94-7	250	10
	Tris(chloroethyl)phosphate	115-96-8	250	5
	Tris-[2-chloro-1-(chloromethyl)ethyl]phosphate (TDCP)	13674-87-8	250	10
	Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	250	10
	Polybrominated biphenyls (PBBs)	59536-65-1	250	10
	Pentabromodiphenyl ether (PentaBDE)	32534-81-9	250	10
	Octabromodiphenyl ether (OctaBDE)	32536-52-0	250	10
	Decabromodiphenyl ether (DecaBDE)	1163-19-5	250	10
	Triethylenephosphoramide (TEPA)	545-55-1	250	10
	Polybromodiphenyl ethers (PBDE's)	Several	250	10
Per and Poly Fluorinated Chemicals	Perfluorooctane sulfonic acid /Perfluorooctane sulfonate (PFOS)	1763-23-1	25 ppb	1 ug/m2
	Perfluorooctanoic acid (PFOA)	335-67-1	25 ppb	1 ug/m2
	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	1 ppm	1 ug/m2
	Perfluorohexane sulphonates (PFHxS)	3871-99-6	1 ppm	1 ug/m2
	Perfluorobutanoic acid	375-22-4	1 ppm	1 ug/m2
	Perfluorobutane sulphonates	29420-49-3	1 ppm	1 ug/m2

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Metals	Antimony	7440-36-0	50	30
	Arsenic	7440-38-2	50	0.2
	Cadmium	7440-43-9	20	0.1
	Cadmium (pigments)	7440-43-9	50	0.1
	Chromium, total	7440-47-3	100	1
	Chromium, VI	18540-29-9	10	0.5
	Chromium, VI (Leather)	18540-29-9	10	3
	Cobalt	7440-48-4	500	1
	Copper	7440-50-8	250	25
	Lead	7439-92-1	100	0.2
	Manganese	7439-96-5	1000	30
	Mercury	7439-97-6	4	0.02
	Mercury (pigments)	7439-97-6	25	0.02
	Nickel	7440-02-0	200	1
	Zinc	7440-66-6	1500	30
Volatile Organic Compounds (VOCs)	Xylene (all isomers)	1330-20-7	500	20
	m-Cresol	108-39-4	500	20
	o-Cresol	95-48-7	500	20
	p-Cresol	106-44-5	500	20
	Benzene	71-43-2	50	5

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Polycyclic Aromatic Hydrocarbons	Benzo(a)pyrene	50-32-8	20	1
	Benzo(e)pyrene	192-97-2	Sum 200	1
	Benzo(a)anthracene	56-55-3	Sum 200	1
	Chrysene	218-01-9	Sum 200	1
	Benzo(b)fluoroanthene	205-99-2	Sum 200	1
	Benzo(j)fluoroanthene	205-82-3	Sum 200	1
	Benzo(k)fluoroanthene	207-08-9	Sum 200	1
	Dibenzo(a,h)anthracene	53-70-3	Sum 200	1
	Acenaphthene	83-32-9	Sum 200	Sum 10
	Acenaphthylene	208-96-8	Sum 200	Sum 10
	Anthracene	120-12-7	Sum 200	Sum 10
	Benzo(ghi)perylene	191-24-2	Sum 200	Sum 10
	Fluoranthene	206-44-0	Sum 200	Sum 10
	Fluorene	86-73-7	Sum 200	Sum 10
	Indeno(1,2,3-cd)pyrene	193-39-5	Sum 200	Sum 10
	Naphthalene	91-20-3	Sum 200	Sum 10
	Phenanthrene	85-01-8	Sum 200	Sum 10
	Pyrene	129-00-0	Sum 200	Sum 10
Chlorotoluenes	Monochlorotoluenes (all isomers)	Several	Sum 200	Sum 1
	Dichlorotoluenes (all isomers)	Several	Sum 200	Sum 1
	Trichlorotoluenes (all isomers)	Several	Sum 200	Sum 1
	Tetrachlorotoluene (all isomers)	Several	Sum 200	Sum 1
	Pentachlorotoluene	877-11-2	Sum 200	Sum 1

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Chlorophenols	2-Chlorophenol	95-57-8	Sum 50	0.5
	3-Chlorophenol	108-43-0	Sum 50	0.5
	4-Chlorophenol	106-48-9	Sum 50	0.5
	2,3-Dichlorophenol	576-24-9	Sum 50	0.5
	2,4-Dichlorophenol	120-83-2	Sum 50	0.5
	2,5-Dichlorophenol	583-78-8	Sum 50	0.5
	2,6-Dichlorophenol	87-65-0	Sum 50	0.5
	3,4-Dichlorophenol	95-77-2	Sum 50	0.5
	3,5-Dichlorophenol	591-35-5	Sum 50	0.5
	2,3,4-Trichlorophenol	15950-66-0	Sum 50	0.5
	2,3,5-Trichlorophenol	933-78-8	Sum 50	0.5
	2,3,6-Trichlorophenol	933-75-5	Sum 50	0.5
	2,4,5-Trichlorophenol	95-95-4	Sum 50	0.5
	2,4,6-Trichlorophenol	88-06-2	Sum 50	0.5
	3,4,5-Trichlorophenol	609-19-8	Sum 50	0.5
	2,3,4,5-Tetrachlorophenol	4901-51-3	Sum 50	0.5
	2,3,4,6-Tetrachlorophenol	58-90-2	Sum 50	0.5
	2,3,5,6-Tetrachlorophenol	935-95-5	Sum 50	0.5
	Tetrachlorophenol (TeCP), salts and compounds	25167-83-3	Sum 50	0.5
	Pentachlorophenol (PCP), salts, esters and compounds	87-86-5	Sum 50	0.5

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Chlorobenzenes	Monochlorobenzene	108-90-7	200	Sum 1
	1,2-Dichlorobenzene	95-50-1	1000	Sum 1
	1,3-Dichlorobenzene	541-73-1	Sum 200	Sum 1
	1,4-Dichlorobenzene	106-46-7	Sum 200	Sum 1
	Trichlorobenzenes, all isomers	Several	Sum 200	Sum 1
	1,2,3-Trichlorobenzene	87-61-6	Sum 200	Sum 1
	1,2,4-Trichlorobenzene	120-82-1	Sum 200	Sum 1
	1,3,5-Trichlorobenzene	108-70-3	Sum 200	Sum 1
	Tetrachlorobenzenes, all isomers	Several	Sum 200	Sum 1
	1,2,3,4-Tetrachlorobenzene	634-66-2	Sum 200	Sum 1
	1,2,3,5-Tetrachlorobenzene	634-90-2	Sum 200	Sum 1
	1,2,4,5-Tetrachlorobenzene	95-94-3	Sum 200	Sum 1
	Pentachlorobenzene	608-93-5	200	Sum 1
	Hexachlorobenzene	118-74-1	200	Sum 1
Formaldehyde	Formaldehyde	50-00-0	200	16 (Baby)
	Formaldehyde	50-00-0	5000	75 (Skin)
	Formaldehyde	50-00-0	5000	300
Dimethyl fumerate (DMF)	Dimethyl fumerate (DMF)	624-49-7	0.1	0.1

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Carcinogenic Dyes	Acid Red 26	3761-53-3	250	5
	Basic Red 9	569-61-9	250	5
	Basic Violet 14	632-99-5	250	5
	Direct Black 38	1937-37-7	250	5
	Direct Blue 6	2602-46-2	250	5
	Direct Red 28	573-58-0	250	5
	Disperse Blue 1	2475-45-8	250	5
	Disperse Blue 3	2475-46-9	250	5
	Disperse Orange 11	82-28-0	250	5
	Malachit green	10309-95-2	250	5
	Malachit green chloride	569-64-2	250	5
	Malachit green	2437-29-8	250	5
	Basic Blue 26	2580-56-5	250	5
Disperse & Sensitizing Dyes	Disperse Yellow 3	2832-40-8	250	5
	Disperse Blue 7	3179-90-6	250	5
	Disperse Blue 26	3860-63-7	250	5
		12222-75-2	250	5
	Disperse Blue 35	56524-77-7	250	5
	Disperse Blue 102	12222-97-8	250	5
	Disperse Blue 106	12223-01-7	250	5
	Disperse Blue 124	61951-51-7	250	5
	Disperse Brown 1	23355-64-8	250	5
	Disperse Orange 1	2581-69-3	250	5
	Disperse Orange 3	730-40-5	250	5

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Disperse & Sensitizing Dyes Contd.	Disperse Orange 37/59/76	1223-33-5	250	5
		13301-61-6	250	5
		51811-42-8	250	5
	Disperse Red 1	2872-52-8	250	5
	Disperse Red 11	2872-48-2	250	5
	Disperse Red 17	3179-89-3	250	5
	Disperse Yellow 1	119-15-3	250	5
	Disperse Yellow 9	6373-73-5	250	5
	Disperse Yellow 39	12236-29-2	250	5
	Disperse Yellow 49	54824-37-2	250	5
	Disperse Yellow 23	6250-23-3	250	5
	Navy Blue: A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato) chromate(1-); trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-)	**Component 1**: 118685-33-9 **Component 2**: Not allocated	250	5

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Azo Dyes forming Restricted Amines	Aniline	62-53-3	150	20
	p-Aminoazobenzene	60-09-3	150	20
	o-Aminoazotoluene	97-56-3	150	20
	4-Aminobiphenyl	92-67-1	150	20
	2-Amino-4-nitrotoluene	99-55-8	150	20
	2-Anisidine	90-04-0	150	20
	Benzidine	92-87-5	150	20
	4-Chloroaniline	106-47-8	150	20
	4-Chlor-2-toluidine	95-69-2	150	20
	p-Cresidine	120-71-8	150	20
	2,4-Diaminoanisole	615-05-4	150	20
	4,4'-Diaminodiphenylmethane	101-77-9	150	20
	2,4-Diaminotoluene	95-80-7	150	20
	3,3'-Dichlorobenzidine	91-94-1	150	20
	3,3'-Dimethoxybenzidine 3,3'-Dimethylbenzidine	119-90-4	150	20
		119-93-7	150	20
	3,3'-Dimethyl-4,4'-diaminodiphenylmethane 4,4'-Methylenebis-(2-chloroaniline)	838-88-0	150	20
		101-14-4	150	20
	2-Naphthylamine	91-59-8	150	20
	4,4'-Oxydianiline	101-80-4	150	20
	4,4'-Thiodianiline	139-65-1	150	20
	2-Toluidine	95-53-4	150	20
	2,4,5-Trimethylaniline	137-17-7	150	20
	2,4-Xylidine	95-68-1	150	20
	2,6-Xylidine	87-62-7	150	20

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Organotin Compounds	Monobutyltin compounds (MBT)	Several	5	1
	Dibutyltin compounds (DBT)	Several	20	1
	Dioctyltin compounds (DOT)	Several	5	0.5
	Tripropyltin compounds (TPT)	Several	5	0.5
	Tributyltin compounds (TBT)	Several	5	1
	Triphenyltin compounds (TPhT)	Several	5	1
	Trioctyltin compounds (TOT)	Several	5	1
	Tricyclohexyltin compounds (TCyHT)	Several	5	1
	Monomethyltin compounds (MMT)	Several	5	1
	Monooctyltin compounds (MOT)	Several	5	1
	Dimethyltin compounds (DMT)	Several	5	1
	Diphenyltin compounds (DPhT)	Several	5	1
	Trimethyltin compounds (TMT)	Several	5	1

Chemical Group	Chemical Substance	CAS Number	MRSL Limit	PRSL Limit
Chlorinated Solvents	cis-1,2-dichloroethylene	156-59-2	5	1
	trans - 1,2-dichloroethylene	156-60-5	5	1
	1,1,1-Trichloroethane	71-55-6	5	1
	1,1,2-Trichloroethane	79-00-5	5	1
	1,1,1,2-Tetrachloroethane	630-20-6	5	1
	1,2-Dichloroethane	107-06-2	5	1
	Dichloromethane	75-09-2	5	1
	Tetrachloroethylene (Perchloroethylene)	127-18-4	5	1
	Trichloroethylene	79-01-6	40	1
	Trichloromethane (Chloroform)	67-66-3	20	5
	Vinylidene chloride (1,1-Dichloroethylene)	75-35-4	50	10
	Carbon tetrachloride CCl4	56-23-5	5	1

Appendix 1: Testing methods by chemical substance type

Chemical Substance	Testing Method	
Phthalates	Solvent Extraction: Gas Chromatography-Mass Spectrometry Liquid Chromatography-Mass Spectrometry	
Alkyphenol & Alkylphenol ethoxylates	Solvent Extraction: Gas Chromatography-Mass Spectrometry Liquid Chromatography-Mass Spectrometry	
Glycols	High-performance Liquid Chromatography Liquid Chromatography-Mass Spectrometry	
Flame Retardants	Solvent Extraction: Gas Chromatography-Mass Spectrometry Liquid Chromatography-Mass Spectrometry Gas Chromatography – Negative Chemical Ionization	
Per and Poly Fluorinated Chemicals (PFCs)	Solvent Extraction: Liquid Chromatography- Mass Spectrometry/ Mass Spectrometry	
Metals	Antimony	ISO 105 E04 (Textile) Acid Digestion Inductively Coupled Plasma
	Arsenic	Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy
	Cadmium	Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy

Chemical Substance	Testing Method	
Metals Contd.	Cadmium (Pigments)	Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy
	Chromium (Total)	ISO105 E04 (Textile) ISO17075 (Leather) Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy
	Chromium VI	ISO105 E04 (Textile) ISO17075 (Leather) Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy
	Cobalt	ISO 105 E04 (Textile)
	Copper	ISO 105 E04 (Textile)
	Lead	Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy
	Manganese	ISO 105 E04 (Textile)
	Mercury	Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy

Chemical Substance	Testing Method	
Metals Contd.	Mercury (Pigments)	Inductively Coupled Plasma – Optical Emission Spectrometry Atomic Absorption Spectroscopy
	Nickel	ISO 105 E04 (Textile) EN 1811 & EN 12472 (Metal)
	Zinc	ISO 105 E04 (Textile)
Volatile Organic Compounds (VOCs)	Gas Chromatography – Mass Spectrometry	
Polycyclic Aromatic Hydrocarbons	Gas Chromatography – Mass Spectrometry Liquid Chromatography	
Chlorotoluenes	DIN 54232 Gas Chromatography – Mass Spectrometry	
Chlorophenols	EN ISO 17070 Solvent Extraction: Gas Chromatography – Mass Spectrometry	
Chlorobenzenes	DIN 54232 Gas Chromatography – Mass Spectrometry	
Formaldehyde	ISO 14184-1 (Textile) ISO 17226-2 (Leather)	
Dimethylfumerate (DMF)	Solvent Extraction: Gas Chromatography – Mass Spectrometry	
Carcinogenic Dyes	DIN 54231 Liquid Chromatography	

Chemical Substance	Testing Method
Disperse & Sensitizing Dyes	DIN 54231 Liquid Chromatography
Azo Dyes (Forming Restricted Amines)	EN 14362-1 (Textile) ISO 17234-1 (Leather) EN 14362-3 (Textile) ISO 17234-2 (Leather) Liquid Chromatography Gas Chromatography

Appendix 2: Primark Chemical Policy

Supplier Company Name:

Country Location:

Date:

[ORGANISATION NAME] are committed to the elimination of hazardous chemicals in all manufacturing processes associated with Primark production.

We commit to Primark's Restricted Substances List and 'Implementation Toolkit', and agree to the implementation of Primark's Chemical Inventory List (in all facilities using chemicals for Primark production).

This commitment extends to all upstream suppliers of products and services associated with Primark production.

The representative for the ownership of environmental health and safety and responsible for chemical management in this organisation is as follows:

Responsible Person (Full Name):

Contact email:

Signed:

PRINT NAME_____ **POSITION**_____

Date: _____

Please email a signed copy of this policy to Primark's Environmental Sustainability Team: environmental@primark.co.uk

Appendix 3: Primark Chemical Inventory List (CIL) – Guidelines for Use

Primark have developed a CIL template to support Primark suppliers and their manufacturing facilities, in effective chemical management and the elimination of the use and discharge of hazardous chemicals.

Primark suppliers are asked to appoint a responsible person to manage the distribution and review of Primark's CIL template to all manufacturing facilities using chemicals for Primark production.

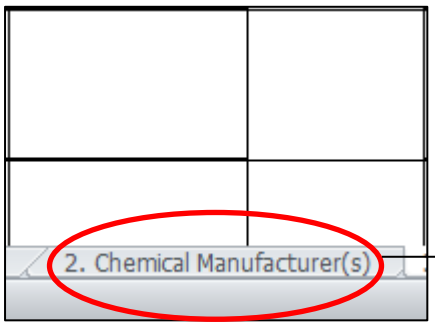
Primark requests a complete and up-to-date CIL document from each manufacturing facility, to be submitted through each Primark Supplier every six months, from the date of initial distribution.

**Please Note: All sections of the CIL template must be completed*

Section 1 – Basic Data

	Chemical Manufacturer name	Product Name	Chemical Type	Date of the MSDS on file?	Environmental Hazard data (GHS H phrases - H400 to H413)	Average consumption / month	Volume in Stock	Storage Location	Specific Physical Hazards (explosive, flammable etc)	Job title of the person completing the assessment
EXAMPLE ROW ONLY. DO NOT FILL OR CHANGE	ABC Chemicals	Clarite ONE	Auxiliary	2016	•H400: Very toxic to aquatic life	500 kg	250 kg	chemicals warehouse	NA	chemicals manager

Step 1 – Adding chemical manufacturer(s) to the CIL - Fill out chemical manufacturer information located within chemical manufacturer(s) worksheet (2) at the bottom of the CIL page

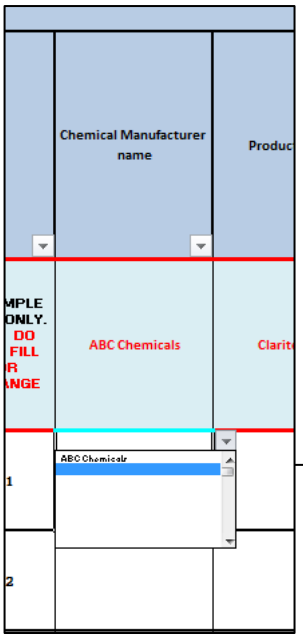


CHEMICAL MANUFACTURER DETAILS

Please fill in the table below, with details of your chemical manufacturer(s)

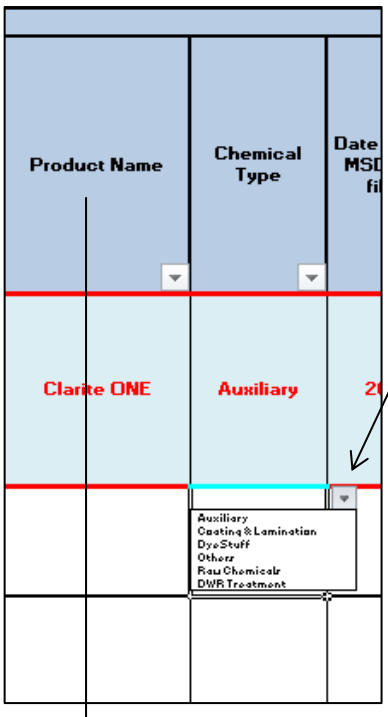
	EXAMPLE COLUMN
Company Name on MSDS:	ABC Chemicals
Address:	No 6 Taiwan
Phone Number:	866 678 XX
Contact Person:	Contact Person Name
Contact Email:	Supplieremail@supplieremail.com
Local trader name on Invoice:	XYZ

Step 2 – Select chemical manufacturer name from the drop down list in main CIL worksheet



Once supplier details have been entered into the chemical manufacturer(s) worksheet above, 'Chemical Manufacturer Name' can be selected from the dropdown list

Step 3 – Insert Chemical Product Name & choose 'Chemical Type' from dropdown list;

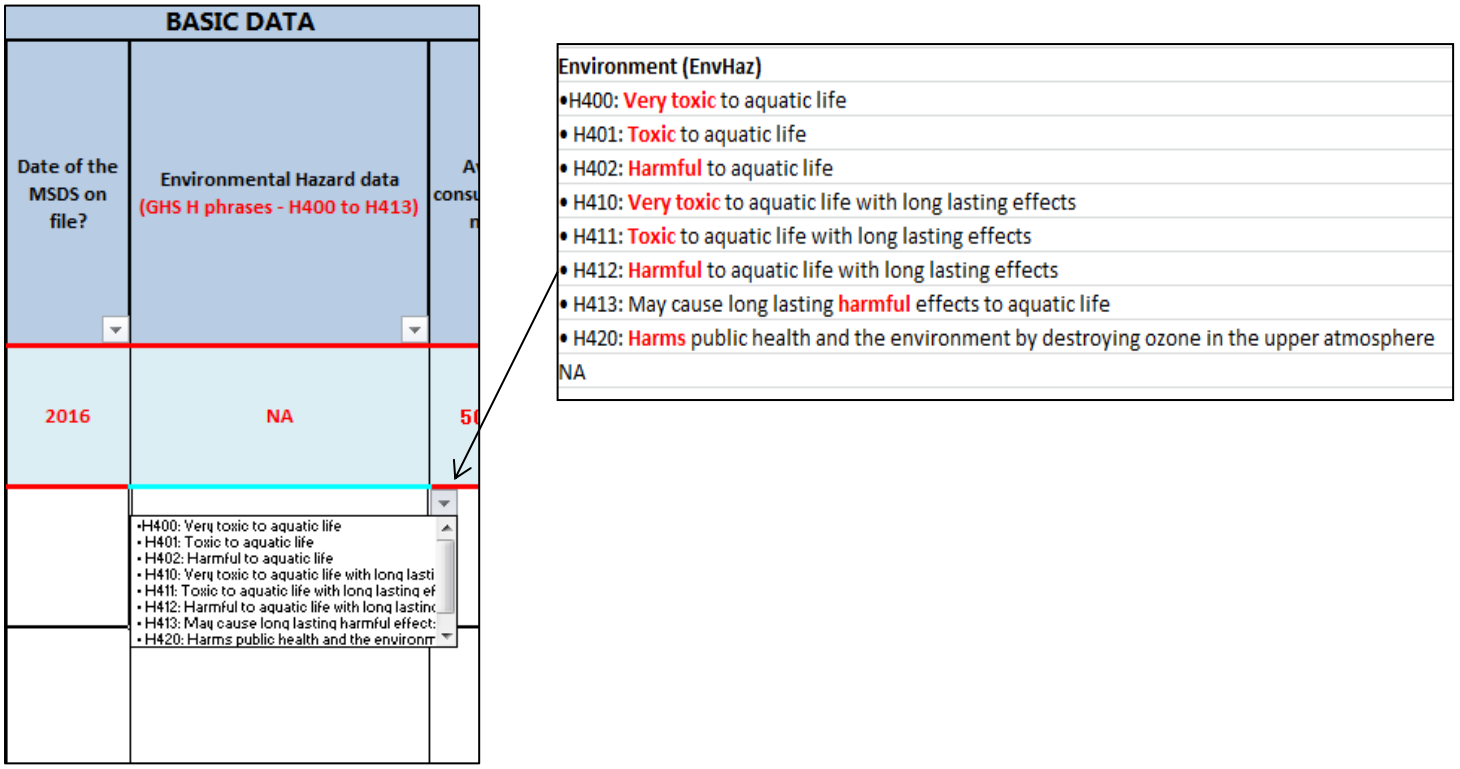


Chemical Type:

- Auxiliary
- Coating & Lamination
- Dyestuff
- Others – including
  - Laboratory; Analysis Chemicals, Trial Chemicals
  - Household; Toilet detergent, Paint Oil, Painting Solvent
  - Equipment; Boiler Fuel, Pump Oil, Water Purification
  - Waste Water; Treatment Chemicals
- Raw Chemicals
  - Acids
  - Alkalis or Bases
  - Salts
- DWR (Durable Water Repellant) Treatment

Product Name should be the same name as listed on the product Material Safety Data Sheet (MSDS)

Step 4 – Insert the date of the MSDS on file for the chemical product and if information is listed in Section 2 of the product MSDS, choose 'Environmental Hazard Data' from dropdown list. If no information is listed, please select N/A



Step 5 – Insert average consumption per month (kg or litres), volume of chemical product currently in stock (kg/litres), storage location of chemical product, any specific hazards listed within section 2 of the product MSDS and the job title of person responsible for maintaining the CIL

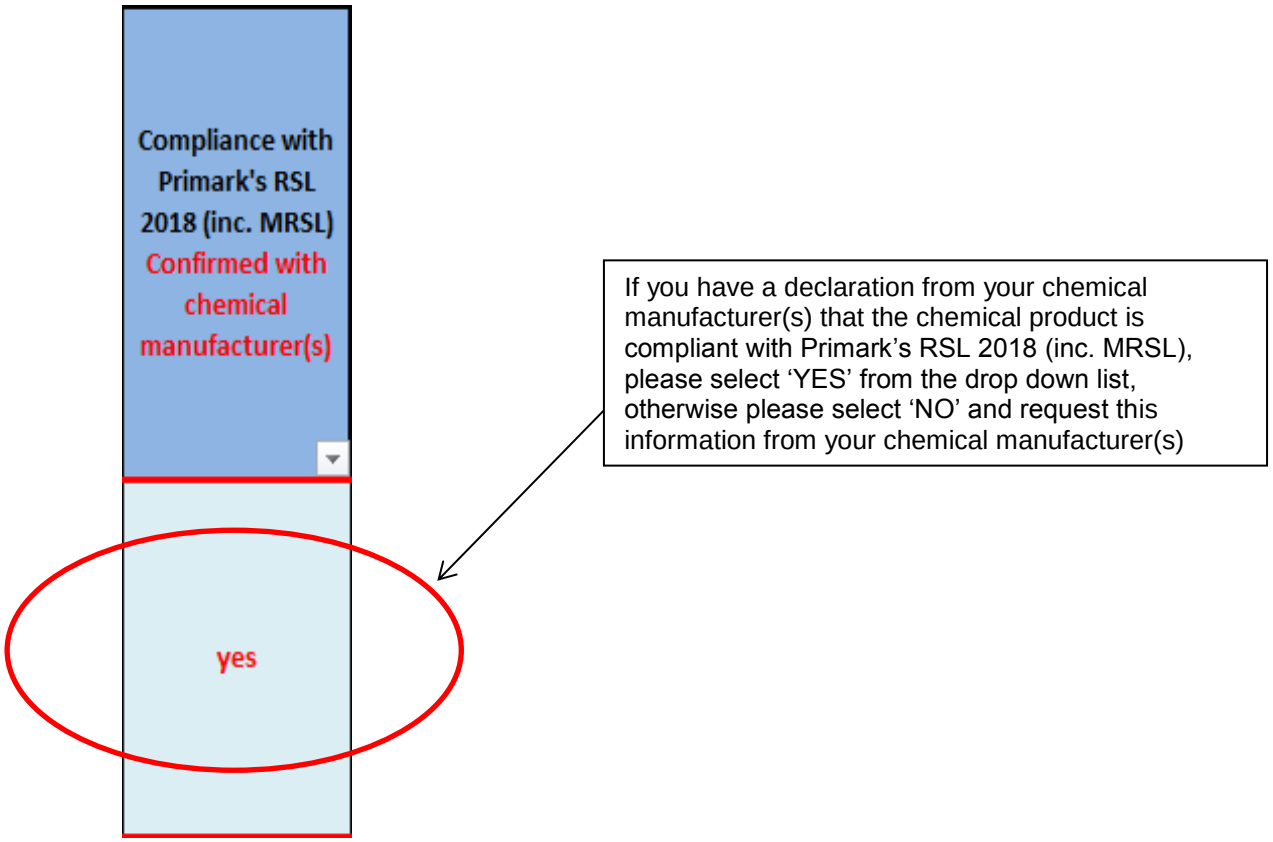
Average consumption / month	Volume in Stock	Storage Location	Specific Physical Hazards (explosive, flammable etc)	Job title of the person completing the assessment
500 kg	250 kg	chemicals warehouse	NA	chemicals manager

Average chemical consumption/ month	Average chemical consumption per month (kg/litre)
Volume in stock	Current stock of chemical (based on inventory book or ERP)
Storage Location	Clearly identify where in the facility the chemical is stored
Specific Physical Hazards	Select from drop down list (according to section 2 of MSDS) – If no physical hazards indicated, please select N/A
Job title of person completing the assessment	Job title of person responsible for maintaining CIL

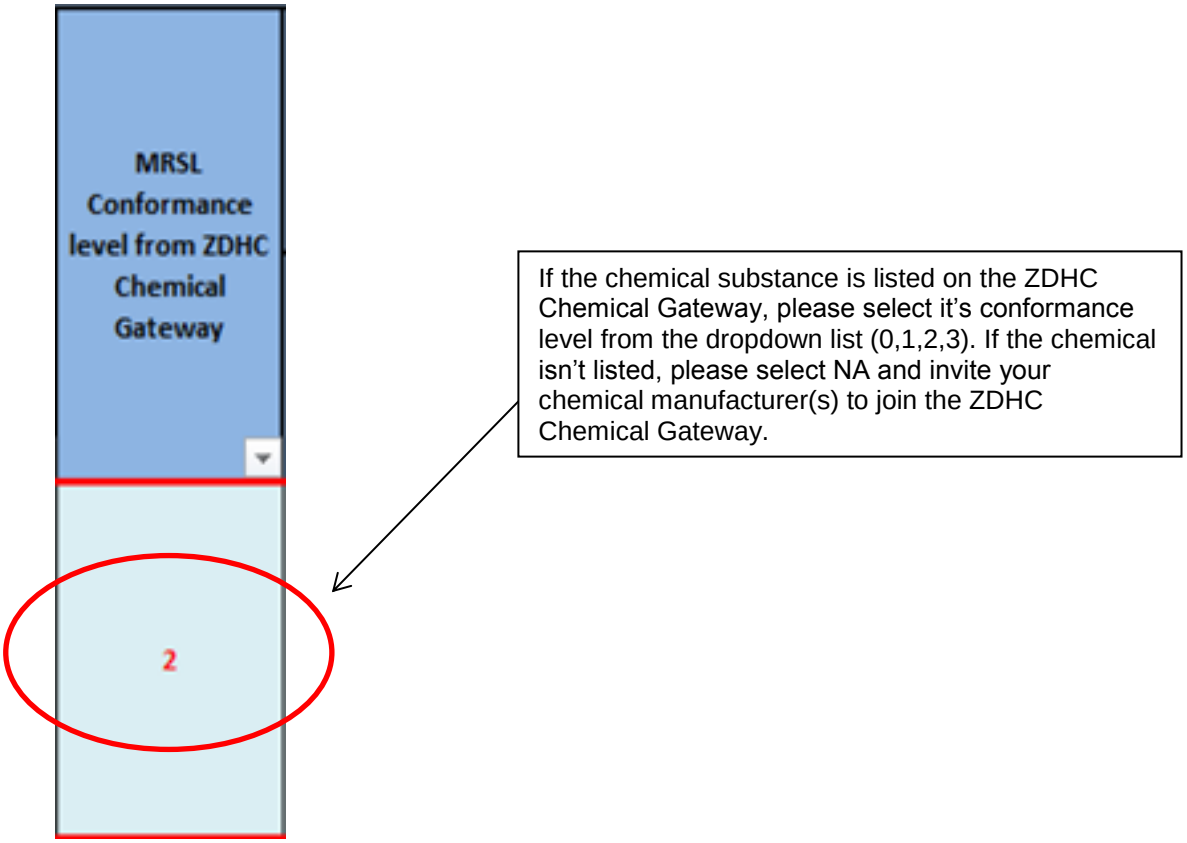
Section 2 – Intermediate Data

INTERMEDIATE DATA						
Compliance with Primark's RSL 2018 (inc. MRSL) Confirmed with chemical manufacturer(s)	MRSL Conformance level from ZDHC Chemical Gateway	Worker Safety Risk Assessment				
		Eye contact hazards	Inhalation hazards	Skin contact hazards	General Health Hazards	Control Measures
yes	2	• H318: Causes serious eye damage	NA	• H312: Harmful in contact with skin	• H351: Suspected of causing cancer	wear tightly fitting safety goggles

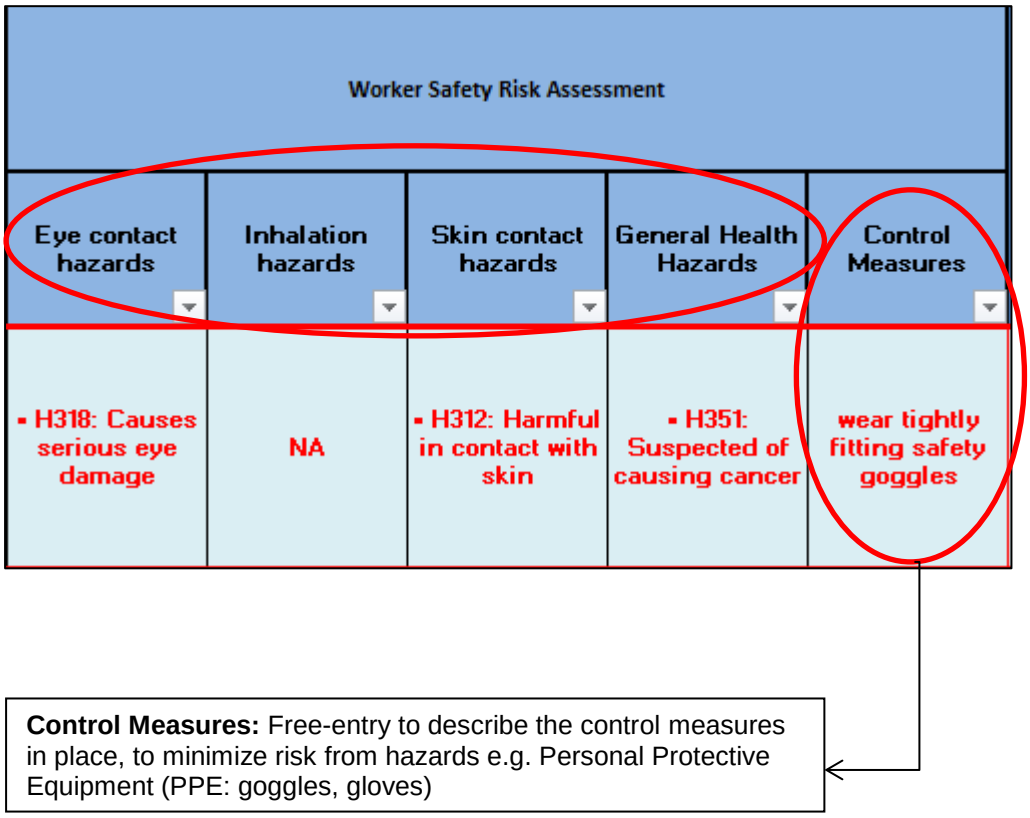
Step 1 – Have you obtained confirmation from your chemical manufacturer, that the chemical product is compliant with Primark's RSL 2018 (inc. MRSL)?



Step 2 – Is the chemical substance listed on the ZDHC Chemical Gateway? If listed, please indicate its conformance level.



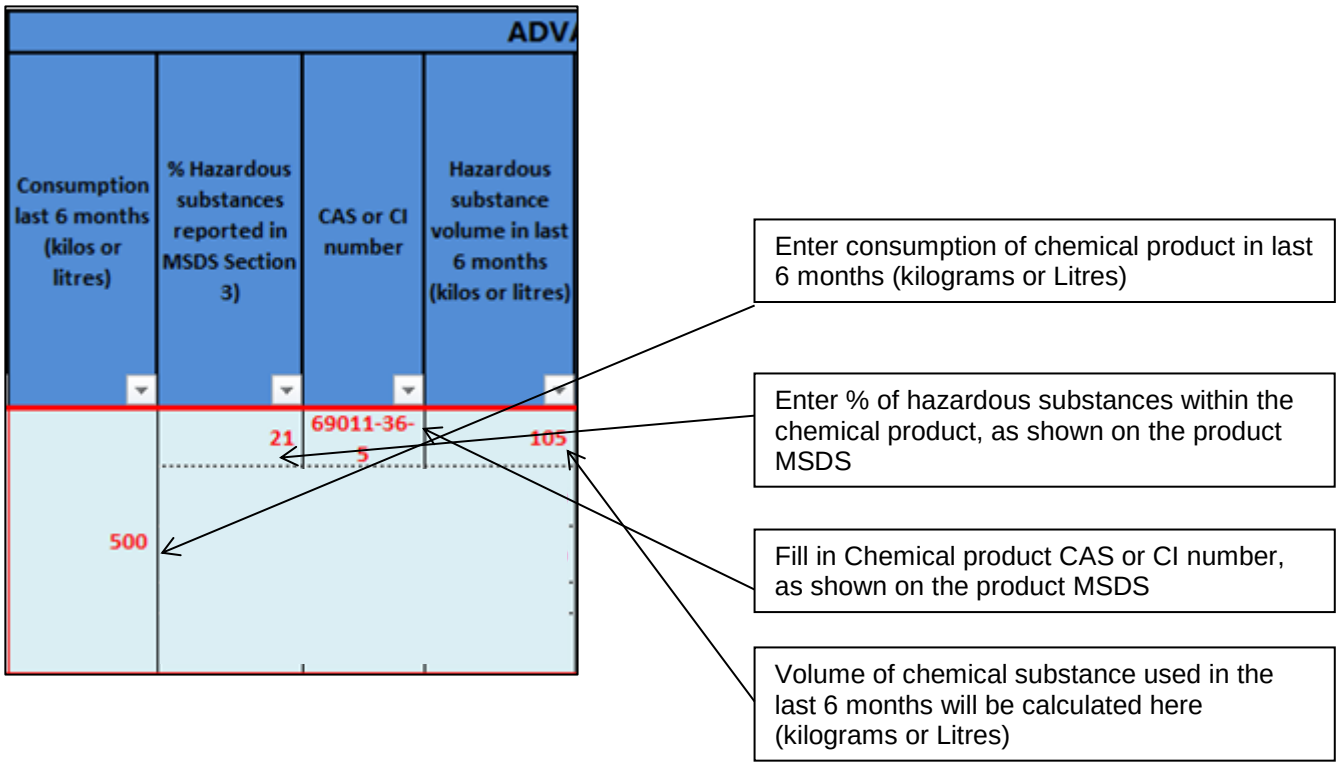
Step 3 – Select from dropdown lists in accordance with hazards listed in section 2 of the chemical product MSDS, if no hazards are listed, please select NA



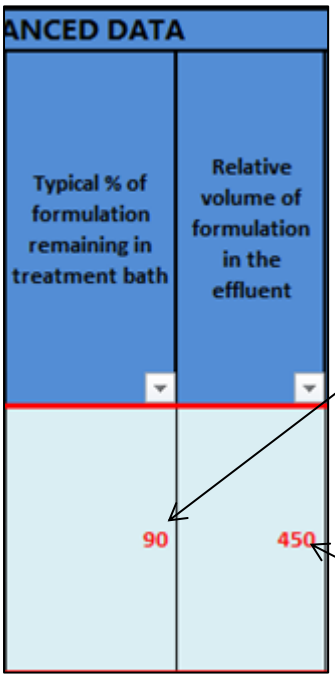
Section 3 – Advanced Data

ADVANCED DATA								
Consumption last 6 months (kilos or litres)	% Hazardous substances reported in MSDS Section 3)	CAS or CI number	Hazardous substance volume in last 6 months (kilos or litres)	Typical % of formulation remaining in treatment bath	Relative volume of formulation in the effluent	Aquatic Toxicity	COD (mg O2 / gram formulation)	COD loading
500	21	69011-36-5	105	90	450	NA	814	366
	10.0	34398-01-1	50					
	2.0	9003-04-7	10					
			-					
			-					

Step 1 – Consumption in last 6 months, % of Hazardous Substances reported in the product MSDS, CAS or CI number and calculation of Hazardous Substance volume in the last 6 months



Step 2 – Typical % of formulation remaining in treatment bath and formulation volume in effluent



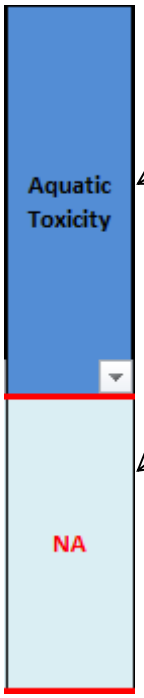
This data needs to be provided from a reliable source e.g. your chemical manufacturer. Care must be taken to ensure their capability and reliability in providing such data. Alternative sources of this information may also be suitable, but it is highly recommended to discuss with your chemical manufacturer in the first instance.

In general, chemical products used in treatment baths will fall into three categories:

- **Those with high affinity to the fibre, such as dyes – input 10 (%)**
- **Those with low affinity to the fibre, such as processing aids – input 90 (%)**
- **If no data is available – input 50 (%)**

This relative value will be calculated automatically

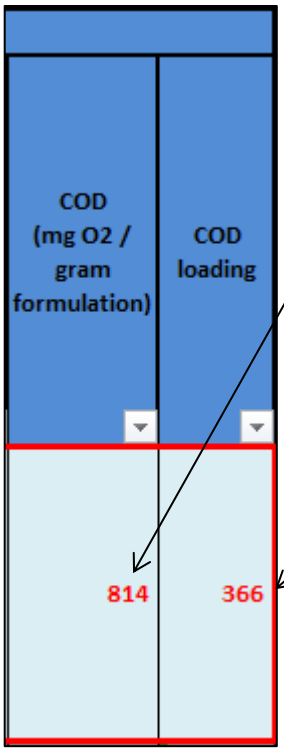
Step 3 – Aquatic Toxicity



'Environmental Hazard Data' will be automatically populated in this column from the information inputted within the 'BASIC DATA' section

Environment (EnvHaz)
•H400: Very toxic to aquatic life
• H401: Toxic to aquatic life
• H402: Harmful to aquatic life
• H410: Very toxic to aquatic life with long lasting effects
• H411: Toxic to aquatic life with long lasting effects
• H412: Harmful to aquatic life with long lasting effects
• H413: May cause long lasting harmful effects to aquatic life
• H420: Harms public health and the environment by destroying ozone in the upper atmosphere
NA

Step 4 – Enter COD Value, as noted within chemical product MSDS



Enter COD Value, as noted within Section 12 of chemical product MSDS

COD is the amount of oxygen required to fully oxidize the chemical product. It is scientifically much more reproducible than BOD (Biological Oxygen Demand) and is therefore frequently one of the key parameters in establishing effluent treatment charges.

The expected loading will be calculated automatically based on multiplying the “relative volume of formulation in the effluent” and the “COD value” entered

COD Loading value will be calculated automatically

Appendix 4: CIL – Reviewer Guidance Notes

1. Sort the “Date of the Material Safety Data Sheet (MSDS) on file” column, to identify MSDS’ which are missing, or more than 5 years old.
    - *Any missing or outdated MSDS must be obtained from the chemical manufacturer.*

2. Sort the “Environmental Hazard Data” column to identify any blanks.
    - *Missing data must be obtained from the chemical manufacturer along with an updated MSDS.*

3. Sort the “Physical Hazard Data” column to identify any blanks.
    - *Missing data must be obtained from the chemical manufacturer along with an updated MSDS.*

4. Sort the “Compliance with Primark’s RSL” column to identify any blanks.
    - *Missing data and an updated statement of compliance must be obtained from the chemical manufacturer.*

5. Sort the “Compliance with ZDHC MRSL” column to identify any blanks.
    - *Missing data and an updated statement of compliance must be obtained from the chemical manufacturer.*

6. Sort the “Eye & Inhalation & Skin Contact & General Health Hazard Data” columns (4 in total) to identify any blanks.
    - *Missing data must be obtained from the chemical manufacturer along with an updated MSDS.*

7. Sort the “Typical % of formulation remaining in the treatment bath” column to identify any blanks.
    - *Missing data must be obtained from the chemical manufacturer.*

8. Sort the “COD” column to identify any blanks.
    - *Missing data must be obtained from the chemical manufacturer.*

Appendix 5: Perfluorinated Chemicals (PFC's)

Primark has had a complete ban on all PFC's used in product manufacture, since 2015.

Primark test for intentional use as we recognise that the risk of contamination during processing is extremely high. However, Primark feel that the best approach to minimising the risk of contamination is to eliminate PFC's from all tiers of the supply chain and request support from Primark suppliers in this process.

For those suppliers currently manufacturing products with a Durable Water Repellent (DWR) function, Primark ask that you obtain written confirmation from each manufacturing facility, that PFC's are not present in any formulations stored or used within their facilities and that this has been confirmed in writing by each of their chemical manufacturers.

Primark also request ALL suppliers to review the Chemical Inventory Lists submitted by their manufacturing facilities and identify any chemicals listed as "DWR" under the column "Chemical Type". Primark suppliers should then confirm that these chemicals are supported by a declaration of conformance to the Primark Restricted Substances List 2018. Any formulations listed as "not compliant", suppliers must obtain a declaration from their manufacturing facility, that confirms PFC's are not present in any formulations stored or used within their facilities and that this has been confirmed in writing by each of their chemical manufacturers.

Version Control

Revision	Section Updated	Updated By	Authorised By	Date
1.1	All - Key terminology and document formatting changes made	Charlotte Pumford	Charles Dickinson	February 2018
1.2	Cosmetics temporarily removed from RSL update for review	Charlotte Pumford	Emma Hamilton-Foster	April 2018