

## INTRODUCTORY STATEMENT

### AGFA's EH&S POLICY

Agfa accepts responsibility for its products and supports the "Responsible Care" initiative, a voluntary program drawn up by the Chemical Industry. Product Stewardship, as an important component of Responsible Care is a corporate commitment for Agfa. It focuses specifically on all aspects of a product's HS&E management, taking into account regulatory requirements, societal expectations and existing practices. Product Stewardship therefore promotes performance improvement within several of the guiding principles of Responsible Care. Agfa sees it as 'Responsible Care' applied to products, thereby accepting responsibility for Agfa's products by critically examining the environmental and safety issues throughout each stage of the product's life cycle.

The general principles of Agfa's Environmental Policy are:

1. Comprehensive environmental protection and maximum safety are given the same priority as high product quality and commercial efficiency.
2. Products are designed, developed and manufactured so that the production process, the transportation, the storage and the use of products, as well as the waste treatment at the end of the life cycle have minimal impact upon the environment.
3. Agfa is committed to systematically developing environmentally acceptable products and production processes.
4. Agfa will advise its customers, its employees and the authorities with an evaluation of its products and manufacturing processes, in all matters pertaining to health, safety and environment.
5. Agfa will not restrict its activities to merely complying with legal requirements relative to the environment. On its own initiative, Agfa will also take further steps based on its proper sense of responsibility.

In view of the adverse effects, which some substances may have for human health and the environment, a number of regulations apply to limit or to prohibit the content of these substances in products. The complex nature and varied composition of Agfa's products makes the implementation of these regulations an important task, that requires the participation of suppliers.

As a tool to help Agfa fulfill its self commitments about the Environmental Policy Agfa has released a Corporate List "Restricted Substances". The Agfa list of "Restricted Substances" is a listing of legally restricted substances. This list aims to inform third parties about substances for which Agfa imposes restrictions and for which Agfa therefore needs to be informed through a Statement of Adherence. This list can also be used by Agfa's suppliers to ensure that information on these substances is taken into account for product planning, development and design and may therefore be helpful in the customer – supplier relationship and dialog too.

### AGFA's CORPORATE LIST OF "RESTRICTED SUBSTANCES"

The document not only provides the list of Restricted Substances but also gives some information about relevant legal requirements for bringing products onto the market. Most regulations specify concentrations, that may not be exceeded for the substances or substance groups in the application (product) in question. The column "Examples of Legal Regulations European Community / countries" refers to applicable substance related legal provisions. Suppliers should be aware that chemical substances regulated under European Community Directives and Regulations are subject to "full harmonization". The legality and practicality of stricter or different national rules should be systematically checked by the suppliers. Efforts have been made to provide accurate information at the date of publication of the document. It is provided for information only and does not replace applicable legal provisions. It is the duty of those who are responsible for placing products on the market to check and to comply with all relevant national and international regulations.

# AGFA LIST OF RESTRICTED SUBSTANCES



no	chemical substances	examples of CAS-no.	prohibited applications 1)	threshold limits (ppm)	examples of use	examples Legal and Regulatory Information
1	Arsenic and arsenic compounds	Detailed lists with examples of CAS- No. (1)	in antifouling paints in wood preservation	1000 (total) <sup>2)</sup>	piment, paint, dye, antifoamer for glass, III-V-group semiconductor substrate (GaAs), flame retardant	89/677/EEC
2	Cadmium and cadmium compounds	Detailed lists with examples of CAS- No. (2)	general	intentionally added <sup>5)</sup>	Pigment, anti-corrosion surface treatment, electric and electronic materials, optical material, stabilizer, plating, pigment for resin, fluorescent, electrode, solder, electric contact, contact point, zinc plating, stabilizer for PVC	Statutory Order 1199 of December 23, 1992 on the Prohibition of Sale, Importation, and Manufacture of Cadmium-containing Products (Danish Law), 76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (91/338/EEC, 91/157/EEC, 93/86/EEC); 99/51/EEC; 2000/53/EEC (EU/ELV Directive)
			electrical and electronic equipment (RoHS) 4)	100 (hom) 3)		2002/95/EC (EU/RoHS Directive)
3	Hexavalent chromium compounds	Detailed lists with examples of CAS- No. (3)	general	intentionally added <sup>5)</sup>	pigment, paint, ink, catalyst, plating, anticorrosion surface treatment, dye, paint dryer, surface treatment, chromate treatment, paints adhesion enhancement, anti-corrosion	2000/53/EC (EU/ELV Directive), ,
			electrical and electronic equipment (RoHS) 4)	1000 (hom) 3)		2002/95/EC (EU RoHS Directive)
4	Lead and lead compounds	Detailed lists with examples of CAS- No. (4)	permanently installed batteries	1000 (total) <sup>2)</sup>	rubber hardener, pigment, paint, lubricant, plastic stabilizer, materials for battery, free-machining alloy, free-cutting, steels, optical materials, X-ray shielding in CRT glass, electrical solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, resin stabilizer, plating, metal alloy, resin additives	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (86/677/EEC, 91/157/EEC, 93/86/EEC); 2000/53/EC (EU/ELV Directive),
			electrical and electronic equipment (RoHS) 4)	1000 (hom) 3)		2002/95/EC (EU/RoHS Directive),
5	Mercury and mercury compounds	Detailed lists with examples of CAS- No. (5)	general	intentionally added <sup>4)</sup>	fluorescent bulb, contact point material, pigment, anti-corrosion, switches, high efficiency phosphor, antibacterial treatment, batteries, discharge lamps, thermometers	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (86/677/EEC, ); 2000/53/EC (EU/ELV Directive);
			electrical and electronic equipment (RoHS) 4)	1000 (hom) <sup>3)</sup>		98/101/EEC; 2002/95/EC (EU/RoHS Directive); 98/101/EEC
			batteries	5 (total) <sup>2)</sup>	Button cells and batteries composed of button cells, Alkaline-manganese batteries, Carbon-zinc batteries	91/157/EEC, 93/86/EEC,

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no	chemical substances	examples of CAS-no.	prohibited applications 1)	threshold limits (ppm)	examples of use	examples Legal and Regulatory Information
6	Heavy metals (lead, cadmium, hexavalent chromium, mercury)	Detailed lists with examples of CAS- No. (1-2-3-4-5)	packaging and packaging components	100 (total) <sup>2)</sup>		94/62/EEC (EU Packaging Directive); 99/177/EC US regulations on heavy metals in packaging (17 States), also New England Mercury-Containing Product Legislation (VT, NH, MD, ME).  EU 94/62/EC CH ChemRRV App. 2.16(4)
7	Sulfur hexafluoride (SF <sub>6</sub> )		general	intentionally added <sup>5)</sup>	Isolating gas	AT BGBl. Nr. 447/2002
8	Asbestos	Detailed lists with examples of CAS- No. (6)	general	intentionally added <sup>5)</sup>	Brake lining pad, insulator, filler, abrasive, insulator, filler, pigment, paint, talc, adiabatic material	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (83/478/EEC; 85/610/EEC; 87/217/EEC; 91/659/EEC; 99/77/EEC). United States: Toxic Substances Control Act (restricts new uses); Occupational Safety and Health Act (29 CFR 1910.1001-1051).
9	Tar oils (Creosotes)	Detailed lists with examples of CAS- No. (7)	wooden and wooden materials	intentionally added <sup>5)</sup>	Impregnations	94/60/EEC
10	Formaldehyde	Detailed lists with examples of CAS- No. (8)	wooden materials and furniture	0,1 ml/m <sup>3</sup>	In wooden materials & furniture, detergents, cleaning agents and polishes	Germany: ChemVerbotsV ; Austria: BGBl, 194/1990
11	Dioxins and furans (Chlorinated & Brominated)	Detailed lists with examples of CAS- No. (9)	general	0,005 (total) <sup>2)</sup>	pollutions in oils	Germany: ChemVerbotsV
12	Ozone Depleting Substances (ODS) including aliphatic Chlorohydrogencarbons (CHC), Chlorofluorocarbons (CFC), Hydrochlorofluorocarbons (HCFC), Hydrobromofluorocarbons (HBFC), and halons	Detailed lists with examples of CAS- No. (10)	general	intentionally added <sup>5)</sup>	refrigerant, foaming agent, extinguishant, solvent cleaner	Law Concerning the Protection of the Ozone Layer through the Control of Specified Substances and others (Japanese law), Montreal Protocol, 1990 revision of Article 611 of the Clean Air Act (US law), 76/769/EEC, marketing and Use of Dangerous Substances and amendments: (94/60/EEC; 97/64/EEC) Regulation EU 2037/2000; Germany: FCKW-Halon-VerbotsV CH ChemRRV App. 1.3
13	Pentachlorophenol (PCP) and compounds and salts	Detailed lists with examples of CAS- No. (11)	general	intentionally added <sup>5)</sup>	insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, capacitors, transformers	91/173/EEC, 99/51/EEC, 94/783/EEC, 96/211/EEC ; Germany: ChemVerbotsV

# AGFA LIST OF RESTRICTED SUBSTANCES



no	chemical substances	examples of CAS-no.	prohibited applications 1)	threshold limits (ppm)	examples of use	examples Legal and Regulatory Information
14	Polychlorinated biphenyl's (PCB), Polychlorinated terphenyls (PCT), and compounds	Detailed lists with examples of CAS- No. (12)	general	intentionally added 5)	insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, capacitors, transformers	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law), 76/769/EEC, Marketing and Use of Dangerous Substances. 76/769/EEC, 82/828/EEC, 85/467/EEC, 89/677/EEC Germany: ChemVerbotsV
15	Polybrominated biphenyls (PBB) (hexa-), (octa-), (deca-)	Detailed lists with examples of CAS- No. (13)	electrical and electronic equipment (RoHS) 4)	1000 (hom) <sup>3)</sup>	flame retardant in plastics and circuit boards	2002/95/EEC (EU/RoHS Directive), German law on dioxin; Regulation 304/2003 (application: industrial chemicals) 2002/95/EC
	Polybrominated diphenyl ethers (PBDE)		flame retardant	1000		2002/95/EC (EU/RoHS Directive); German law on dioxin; 76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (2003/11/EEC for Penta BDE, Octa BDE). US Law (Hawaii, Maine for penta BDE and Octa BDE).
	Pentabromdiphenylether C <sub>12</sub> H <sub>5</sub> Br <sub>5</sub> O					2003/11/EC
	Octabromdiphenylether C <sub>12</sub> H <sub>2</sub> Br <sub>8</sub> O					
16	Organostannic compounds Tributyl Tins & Triphenyl Tins	Detailed lists with examples of CAS- No. (14)	antifouling paints	intentionally added 5)		89/677/EEC, 99/51/EEC, Germany: ChemVerbotsV
17	Certain azo compounds with carcinogenic amines	Detailed lists with examples of CAS- No. (15)	Dyes in requisites with occasional or permanent bodily contact	intentionally added 5)		76/769/EEC Germany: BedarfsgegV

- 1) data valid for the whole substance group if not otherwise indicated
- 2) (total) = limit value refers to the sum of all substances in this class
- 3) (hom) = limit value refers to homogenous materials (that can not be mechanically disjointed into different materials e.g. individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins, coatings)

- 4) (RoHS) = materials banned by the EC directive
- 5) Intentionally Added means the deliberate use in the formulation of a product or subpart where its continued presence is desired in the final product or subpart to provide a specific characteristic, appearance, or quality. Metal plating is an example of intentional addition.

Detailed Chemical lists with examples of CAS-Numbers			
<b>1) Arsenic and arsenic compounds</b>	<b>CAS-no.</b>		
Arsenic	7440-38-2		
Gallium arsenide	1303-00-0		
Calcium arsenate	7778-44-1		
Calcium arsenite	27152-57-4		
Arsenic pentoxyde	1303-28-2		
Arsenic trioxyde	1327-53-3		
Potassium arsenite	10124-50-2		
Potassium arsenate	7784-41-0		
Lead arsenate	3687-31-3		
other Arsenic compounds	-		
<b>2) Cadmium and Cadmium compounds</b>	<b>CAS-no.</b>		
Cadmium	7440-43-9		
Cadmium oxide	1306-19-0		
Cadmium sulfide	1306-23-6		
Cadmium chloride	10108-64-2		
Cadmium sulphate	10124-36-4		
other Cadmium compounds	-		
<b>3) Chromium VI and compounds</b>	<b>CAS-no.</b>		
Chromium	7440-47-3		
Chromium trioxide	1333-82-0		
Barium chromate	10294-40-3		
Calcium chromate	13765-19-0		
Chromic acetate	1066-30-4		
Lead (II) chromate	7758-97-6		
Sodium chromate	7775-11-3		
Sodium dichromate	10588-01-9		
Strontium chromate	7789-06-2		
Potassium dichromate	7778-50-9		
Potassium chromate	7789-00-6		
Zinc chromate	13530-65-9		
other Chromium VI compounds			
<b>4) Lead and lead compounds</b>	<b>CAS-no.</b>		
Lead	7439-92-1		
Lead (II) sulfate	7446-14-2		
Lead (II) carbonate	598-63-0		
Lead hydrocarbonate	1319-46-6		
Lead acetate	301-04-2		
Lead (II) acetate, trihydrate	6080-56-4		
Lead phosphate	7446-27-7		
Lead selenide	12069-00-0		
Lead (IV) oxide	1309-60-0		
Lead (II,IV) oxide	1314-41-6		
Lead (II) sulfide	1314-87-0		
Lead (II) oxide	1317-36-8		
Lead (II) carbonate basic	1319-46-6		
Lead hydroxidcarbonate	1344-36-1		
Lead (II) phosphate	7446-27-2		
Lead (II) chromate	7758-97-6		
Lead (II) titanate	12060-00-3		
Lead sulphate, sulphuric acid, lead salt	15739-80-7		
Lead sulphate, tribasic	12202-17-4		
Lead stearate	1072-35-1		
Lead stearate dibasic	56189-09-4		
other Lead compounds	-		
<b>5) Mercury and Mercury compounds</b>	<b>CAS-no.</b>		
Mercury	7439-97-6		
Mercuric chloride	33631-63-9		
Mercury (II) chloride	7487-94-7		
Mercuric sulphate	7783-35-9		
Mercuric nitrate	10045-94-0		
Mercury (II) oxide	21908-53-2		
Mercuric sulfide	1344-48-5		
other Mercury compounds	-		

# AGFA LIST OF RESTRICTED SUBSTANCES



<b>6) Asbestos and Asbestos materials</b>	<b>CAS-no.</b>	<b>9) Halogenated dioxins and furans</b>	<b>CAS-no.</b>
Asbestos and Asbestos materials	1332-21-4	1,2,3,7,8-Penta-CDD	40321-76-4
Actinolite	77536-66-4	2,3,7,8-Tetra-CDF	51207-31-9
Amosite (Grunerite)	12172-73-5	2,3,4,7,8-Penta-CDF	57117-31-4
Anthophyllite	77536-67-5	1,2,3,4,7,8-Hexa-CDD	39227-28-6
Chrysotile	12001-29-5	1,2,3,7,8,9-Hexa-CDD	19408-74-3
Crocidolite	12001-28-4	1,2,3,6,7,8-Hexa-CDD	57653-85-7
Tremolite	77536-68-6	1,2,3,7,8-Penta-CDF	57117-41-6
<b>7) Tar oils (Creosotes)</b>	<b>CAS-no.</b>	1,2,3,4,7,8-Hexa-CDF	70648-26-9
Tar oils (Creosotes)	8001-58-9	1,2,3,7,8,9-Hexa-CDF	72918-21-9
<b>8) Formaldehyde</b>	<b>CAS-no.</b>	1,2,3,6,7,8-Hexa-CDF	57117-44-9
Formaldehyde	50-00-0	2,3,4,6,7,8-Hexa-CDF	60851-34-5
		1,2,3,4,6,7,8-Hepta-CDD	35822-46-9
		1,2,3,4,6,7,8,9-Octa-CDD	3268-87-9
		1,2,3,4,6,7,8-Hepta-CDF	67562-39-4
		1,2,3,4,7,8,9-Hepta-CDF	55673-89-7
		1,2,3,4,6,7,8,9-Octa-CDF	39001-02-0
		2,3,7,8-Tetra-BDD	50585-81-6
		1,2,3,7,8-Penta-BDD	109333-34-8
		2,3,7,8-Tetra-BDF	67733-57-7
		2,3,4,7,8-Penta-BDF	131166-92-2
		1,2,3,4,7,8-Hexa-BDD	110999-44-5
		1,2,3,7,8,9-Hexa-BDD	10999-46-7
		1,2,3,6,7,8-Hexa-BDD	110999-45-6
		1,2,3,7,8-Penta-BDF	109333-34-8

## 10) Ozone Depleting Substances (ODS)\*

including aliphatic Chlorohydrocarbons (CHC), Chlorofluorocarbons (CFC) , n- and polyhalogenated hydrochlorofluorocarbons (HCFC) , Hydrobromofluorocarbons (HBFC) and Halons

	CAS-no.
Trichlorofluoromethane (CFC 11)	75-69-4
Dichlorodifluoromethane (CFC12)	75-71-8
Chlorotrifluoromethane (CFC 13)	75-72-9
Pentachlorofluoroethane (CFC 111)	354-56-3
Tetrachlorodifluoroethane (CFC 112)	76-11-9
	76-12-0
Trichlorotrifluoroethane (CFC 113)	354-58-5
1,1,2 Trichlorotrifluoroethane	76-13-1
Dichlorotetrafluoroethane (CFC 114)	76-14-2
Monochloropentafluoroethane (CFC 115)	76-15-3
Heptachlorofluoropropane (CFC 211)	422-78-6
	135401-87-5
Hexachlorodifluoropropane (CFC 212)	3182-26-1
Pentachlorotrifluoropropane (CFC 213)	2354-06-5
	134237-31-3
Tetrachlorotetrafluoropropane (CFC 214)	29255-31-0
1,1,1,3- Tetrachlorotetrafluoropropane	2268-46-4
Trichloropentafluoropropane (CFC 215)	1599-41-3
1,1,1 –Trichloropentafluoropropane	4259-43-2
1,2,3 – Trichloropentafluoropropane	76-17-5
Dichlorohexafluoropropane (CFC 216)	661-97-2
Monochloroheptafluoropropane (CFC 217)	422-86-6
Bromochlorodifluoromethane (Halon 1211)	353-59-3
Bromotrifluoromethane (Halon 1301)	75-63-8
Dibromotetrafluoroethane ( Halon 2402)	124-73-2
Tetrachloromethane (Carbon Tetrachloride)	56-23-5
1,1,2,2-Tetrachloroethane	79-34-5
1,1,1,2-Tetrachloroethane	630-20-6
Pentachloroethane	76-01-7
Trichloromethane (Chloroform)	67-66-3
1,1,2-Trichloroethane	79-00-5
1,1-Dichloroethylene	75-35-4
1,1,1,- Trichloroethane (methyl chloroform)	71-55-6
and isomers, except 1,1,2- trichloroethane	
Bromomethane (Methyl Bromide)	74-83-9
Bromodifluoromethane and isomers ( HBFC `s)	1511-62-2
Bromochloromethane	74-97-5

\*Please note: These materials may contain isomers that are not listed here.

## 11) Pentachlorophenol (PCP) and compounds

	CAS-no.
Pentachlorophenol (PCP)	87-86-5
and compounds	131-52-2

## 12) Polychlorinated Biphenyls (PCB), Polychlorinated terphenyls (PCT) and compounds

	CAS-no.
Polychlorinated Biphenyls	1336-36-3
Polychlorinated Terphenyls	61788-33-8
Aroclor	12767-79-2
Chlorodiphenyl (Aroclor 1260)	11096-82-5
Kanechlor 500	27323-18-8
Aroclor 1254	11097-69-1
Terphenyls	26140-60-3

## 13) Polybrominated Biphenyls (PBB), Polybrominated diphenyl ethers (PBDE)

	CAS-no.
Bromobiphenyl and its ethers	2052-07-5
	2113-57-7
	92-66-0
	101-55-3
Dibromobiphenyl and its ethers	92-86-4
	2050-47-7
Tribromobiphenyl ether	49690-94-0
Tetrabromobiphenyl and its ethers	40088-45-7
	40088-47-9
Pentabromobiphenyl ether	32534-81-9
Hexabromobiphenyl and its ethers	59080-40-9
	36355-01-8
	67774-32-7
	36483-60-0
Heptabromobiphenylether	68928-80-3
Octabromobiphenyl and its ethers	61288-13-9
	32536-52-0
Nonabromobiphenylether	63936-56-1
Decabromobiphenyl and its ethers	13654-09-6
	1163-19-5
Polybrominated Biphenyl	59536-65-1

# AGFA LIST OF RESTRICTED SUBSTANCES



14) TBTO, Tributyl Tins (TBT) & Triphenyl Tins (TPT)	CAS-no.	15) Carcinogenic amines	CAS-no.
Bis(tris-n-butyltin)oxide (TBTO)	56-35-9	4-Amino azobenzene	60-09-3
Tributyltin chloride	1461-22-9	o-Anisidine	90-04-0
Tributyltin fluoride	1983-10-4	2-Naphthylamine	91-59-8
Tributyltin acetate	56-36-0	3,3'-Dichlorobenzidine	91-94-1
Tributyltin laurate	3090-36-6	4-Aminodiphenyl	92-67-1
Bis(tributyltin) phthalate	4782-29-0	Benzidine	92-87-5
other Tributyl Tins (TBT)	-	o-Toluidine	95-53-4
Triphenyltin chloride	639-58-7	4-Chloro-o-toluidine	95-69-2
Triphenyltin fluoride	379-52-2	2,4-Toluylenediamine	95-80-7
Triphenyltin acetate	900-95-8	o-Aminoazotoluene	97-56-3
Triphenyltin hydroxide	76-87-9	2-Amino-4-nitrotoluene	99-55-8
other Triphenyl Tins (TPT)	-	4,4'-Methylenebis-(2-chloroaniline)	101-14-4
		4,4'-Diaminodiphenylmethane	101-77-9
		4,4'-Oxydianiline	101-80-4
		p-Chloroaniline	106-47-8
		3,3'-Dimethoxybenzidine	119-90-4
		3,3'-Dimethylbenzidine	119-93-7
		p-Cresidine	120-71-8
		2,4,5-Trimethylaniline	137-17-7
		4,4'-Thiodianiline	139-65-1
		2,4-Diaminoanisole	615-05-4
		3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0
		4-Nitrobiphenyl	92-93-3