

# **The Varner Group**

## **SUPPLIER REQUIREMENTS MANUAL**

### **Part III.**

### **Chemical Substances**

Version 02.2009

## **Companies within the Varner Group**

**BIK BOK**

**CARLINGS**

**CUBUS**

**DRESSMANN**

**DRESSMANN XL**

**SOLO**

**SUP\*R**

**URBAN**

**VIVIKES**

**VOLT**

**WEARHOUSE**

**WOW**

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### III. CHEMICAL SUBSTANCES

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Last up-dated October 09

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### **3.1 Safe handling of chemical substances**

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Environmental measures shall be taken throughout the production chain. Chemical substances and preparations shall be carefully managed and the use of chemicals in the production of goods to the Varner Group is clearly regulated.

#### **List of all chemicals used in the production**

All suppliers to the Varner Group shall establish and maintain a list of all chemical substances used in the production process and maintenance. Upon request, suppliers shall submit the list to the CSR department and/or to auditors performing a social audit according to the Varner Group Code of Conduct. The list shall include the name of the chemical product, the purpose/area of use and a reference to a Material Safety Data Sheet (MSDS).

#### **Written policy**

Suppliers shall have a written procedure for the procurement, storage, handling and use of chemicals include guidelines on safe handling and use of different chemicals, with specific emphasis on hazardous chemicals. Suppliers shall in addition appoint a responsible person in charge of implementing measures in accordance with these regulations.

#### **Competence and Training**

Suppliers must ensure that the risk associated with each chemical substance is assessed, understood and communicated to all employees. Employees that procure, store, handle and use chemicals must have the right competence and be sufficiently trained; records from training shall be kept.

#### **Storage**

Supplier shall prevent chemicals from leaking to air, ground and water. Chemical storage areas require specific design and equipment such as construction materials, lighting, ventilation and fire extinguishers. It shall include first aid and eyewash equipment. Additional requirements apply to chemicals that are classified as flammable or combustible liquids. Storage of liquid chemicals shall be free of drainage holes and protected by sills.

#### **Hazardous Waste Disposal**

Supplier shall have a policy for disposing hazardous waste materials. Hazardous waste must not be allowed to accumulate and hazardous waste collection must be arranged through certified firms. The frequency of collection is dependent upon the type and amount of waste generated. Supplier shall keep a record of all waste collections.

## 3.2 List of restricted substances

All suppliers are requested to follow the requirements below and a test report performed by an approved independent laboratory (ref. list in section 2.1) may be requested.




The Varner Group reserve the right to cancel orders, in whole or in part, and claim or take other action if products or tests do not comply with our chemical requirements. The buying department reserve the right to ask for additional documentation showing the requirements have been respected and random controls may be carried out.

### Table explanation

The restricted substances list is divided according to the following production stages:






- Pre-treatment
- Dyeing and printing
- Finishing treatment and sundry
- Other factors of importance









### Table categories description



| PRODUCTION STAGE  |   |            |   |
|---|---|------------|---|
| CHEMICAL TYPE   |   |            |   |
| FAMILY OF CHEMICAL SUBSTANCES   |   |            |   |
|  |  |            |   |
|  | Name of the Restricted Substance  | CAS No (*) | Varner Group regulation<br>Max. concentration value allowed |



(\*) The CAS No states the identification number for the substance or group of substances according to Chemical Abstract Service. The sign ++ means that there may be several substances and CAS numbers covered by the specification. Stated numbers are examples of substances covered.




### Explanation of symbols

-  Legal restrictions within Norway and/or the EU that regulate the use of the substance exist.
-  The substance shall not be used in the production.
-  The substance shall not be used in the production and is not allowed as additive. The list states a maximum acceptable concentration limit since there may be some unintended contamination of raw materials in the production.
-  The substance can be used within the limits allowed
-  A fact sheet explaining the harmful health and environmental effects of the substance, its main use, legal regulations and standard test methods is available (contact the CSR-department for details).





| PRETREATMENT  |   |                               |
|---|---|-------------------------------|
| EMULGATORS / DISPERSING AGENTS  |   |                               |
|    | <b>ALKYLPHENOL ETHOXYLATES (APEO)</b><br>Nonionic tensides. May be used in detergents and cleaning agents.<br>  |                               |
|   | Nonylphenol ethoxylates<br>( <i>NPEO; nonylphenol polyethylene glycol ether; nonylphenoxy polyethoxy ethanol</i> )  | 26027-38-3<br>9016-45-9<br>++ |
|   | Nonylphenol (decomposition product)   | 25154-52-3                    |
|   | Octylphenol ethoxylates   | ++                            |
|   | Octylphenol (decomposition product)<br>( <i>(1,1,3,3-Tetramethylbutyl)-phenol</i> )   | 27193-28-8                    |
|   | $\alpha$ -Sulfo-omega-(nonylphenoxy)-poly(oxy-1,2-ethanediyl) ammonium salt   | 9051-57-4                     |
|   | $\alpha$ -[4-(1,1,3,3-Tetramethylbutyl)phenyl]-omega-hydroxy-poly(oxy-1,2-ethanediyl)   | 9002-93-1                     |
|   | Other alkylphenol ethoxylates   | ++                            |
|   | <b>Shall not be used in the production</b><br>Max. concentration: 30 ppm  |                               |
|   | <b>QUARTERNARY AMMONIUM SALTS</b><br>Used as detergents, fabric softeners, biocides<br>  |                               |
|   | Bis(hydrogenated tallow alkyl)dimethylchloride<br>( <i>Bis(hydrogenated tallow)dimethyl ammoniumchloride; DHTDMAC</i> )   | 61789-80-8                    |
|   | Distearyl-dimethylammoniumchloride<br>( <i>DODMAC; DSDMAC</i> )   | 107-64-2                      |
|   | Bis(hydrogenated-tallow-alkyl)dimethylammoniumchloride<br>( <i>DTDMAC</i> )   | 68783-78-8                    |
|   | <b>Shall not be used in the production</b>  |                               |
|  | <b>ORGANIC SOLVENTS</b><br>Used in several production processes<br>   |                               |
|   | Carbon tetrachloride<br>( <i>Tetrachloromethane</i> )   | 56-23-5                       |
|   | 1,1,1-Trichloroethane<br>( <i>Methylchloroform</i> )  | 71-55-6                       |
|   | Benzene   | 71-43-2                       |
|   | 1,1,1,2-Tetrachloroethane   | 630-20-6                      |
|   | 1,1,2,2-Tetrachloroethane   | 79-34-5                       |
|   | Pentachloroethane   | 76-01-7                       |
|   | Chloroform<br>( <i>Trichloromethane</i> )   | 67-66-3                       |
|   | 1,1,2-Trichloroethane   | 79-00-5                       |
|   | 1,1-Dichloroethene<br>( <i>Vinylidene chloride</i> )  | 75-35-4                       |
|   | 1,1,2-Trichloroethane   | 79-00-5                       |
|   | Toluene   | 108-88-3                      |
|   | N,N-Dimethylformamide<br>( <i>Dimethylformamide</i> )   | 68-12-2                       |
|   | 1,1'-Oxybis-2-propanol  | 110-98-5                      |
|   | 4-Chloro-3-methyl-phenol<br>( <i>p-Chloro-m-cresol</i> )  | 59-50-7                       |
|   | Hexachlorobutadiene<br>( <i>1,1,2,3,4,4-Hexachloro-1,3-butadiene</i> )  | 87-68-3                       |
|   | <b>Shall not be used in the production</b><br>Max. total concentration:<br>3% by mass aromatic hydrocarbons   |                               |

| CARRIERS  |   |                        |                                     |
|---|---|------------------------|-------------------------------------|
| <b>CHLORINATED BENZENES, TOLUENES, NAPHTHALENES AND XYLENES</b>                     |   |                        |                                     |
|    |   |                        |                                     |
|   | Monochlorobenzene   | 108-90-7               | Shall not be used in the production |
|   | Dichlorobenzenes  | ++                     |                                     |
|   | 1,2-Dichlorobenzene   | 95-50-1                |                                     |
|   | 1,3-Dichlorobenzene   | 541-73-1               |                                     |
|   | 1,4-Dichlorobenzene   | 106-46-7               |                                     |
|   | Dichloromethylbenzene   | 98-87-3                |                                     |
|   | Trichlorobenzenes   | 12002-48-1             |                                     |
|   |   | ++                     |                                     |
|   | 1,2,4-Trichlorobenzene  | 120-82-1               |                                     |
|   | 1,2,3-Trichlorobenzene  | 87-61-6                |                                     |
|   | Tetrachlorobenzenes   | ++                     |                                     |
|   | Pentachlorobenzenes   | ++                     |                                     |
|   | Hexachlorobenzenes  | 118-74-1               |                                     |
|   |   | ++                     |                                     |
|   | Chlorotoluenes<br>(Chloromethylbenzenes)                                    | ++                     |                                     |
|   | o-Chlorotoluene   | 95-49-8                |                                     |
|   | Dichlorotoluenes  | 29797-40-8             |                                     |
|   |   | ++                     |                                     |
|   | 2,6-Dichlorotoluene   | 118-69-4               |                                     |
|   | 2,4-Dichlorotoluene   | 95-73-8                |                                     |
|   | 3,4-Dichlorotoluene   | 95-75-0                |                                     |
|   | Trichlorotoluenes<br>(Trichloromethylbenzenes)                              | ++                     |                                     |
|   | Tetrachlorotoluenes   | ++                     |                                     |
|   | Pentachlorotoluenes   | ++                     |                                     |
|   | Chlorinated naphthalenes  | ++                     |                                     |
|   | Chlorinated xylenes   | ++                     |                                     |
| <b>VARIOUS CARRIERS</b>   |   |                        |                                     |
|  |   |                        |                                     |
|   | Naphthalene   | 91-20-3                | Shall not be used in the production |
|   | 2-Chlorophenol<br>(o-Chlorophenol)  | 95-57-8                |                                     |
|   | C <sub>3</sub> -Alkylbenzenes   | ++                     |                                     |
|   | 1,2,4-Trimethylbenzene  | 95-63-6                |                                     |
|   | C <sub>4</sub> -Alkylbenzenes   | ++                     |                                     |
|   | Butylbenzene  | 104-51-8<br>68411-44-9 |                                     |
|   | Tetrachloroethylene<br>(Perchloroethylene)                                  | 127-18-4               |                                     |
|   | Biphenyl  | 92-52-4                |                                     |
|   | Propylbenzene   | 103-65-1               |                                     |
|   | Phenylphenol<br>([1,1'-Biphenyl]-ol; Hydroxybiphenyl)                       | 90-43-7<br>92-69-3     |                                     |
|   | 1,2,3,4-Tetrahydro-naphthalene<br>(Tetrahydronaphthalene; benzocyclohexane) | 119-64-2               |                                     |
|   | 1,1'-Oxybis-benzene<br>(Diphenyl oxide)                                     | 101-84-8               |                                     |









| DYEING & PRINTING   |  |          |                                     |
|---|--|----------|-------------------------------------|
| DYES  |  |          |                                     |
|  | <p><b>AZODYES</b><br/>Azodyes which, by reductive cleavage of one or more azo groups, may release one or more of the arylamines listed below, shall not be used in textile or leather articles which may come into direct and prolonged contact with the human skin or oral cavity.</p> <p style="text-align: center;">  </p> |          |                                     |
|   | 4-Aminobiphenyl  | 92-67-1  | Shall not be used in the production |
|   | Benzidine<br>(4,4'-Diaminodiphenyl)  | 92-87-5  |                                     |
|   | 4-Chloro-o-toluidine   | 95-69-2  |                                     |
|   | 2-Naphthylamine<br>(β-Naphthylamine)   | 91-59-8  |                                     |
|   | o-Aminoazotoluene<br>(4-Amino-2',3-dimethylazobenzene;<br>4-(o-tolyazo)-o-toluidine; 2-amino-azotoluene;<br>C.I. Solvent Yellow 3)   | 97-56-3  |                                     |
|   | 2-Amino-4-nitrotoluene   | 99-55-8  |                                     |
|   | 4-Chloroaniline<br>(p-Chloroaniline)   | 106-47-8 |                                     |
|   | 2,4-Diaminoanisole<br>(4-Methoxy-m-phenylenediamine)   | 615-05-4 |                                     |
|   | 4,4'-Diaminodiphenylmethane<br>(4,4'-Methylenedianiline; MDA)  | 101-77-9 |                                     |
|   | 3,3'-Dichlorobenzidine   | 91-94-1  |                                     |
|   | 3,3'-Dimethoxybenzidine<br>(o-Dianisidine)   | 119-90-4 |                                     |
|   | o-Tolidine<br>(3,3'-Dimethylbenzidine)   | 119-93-7 |                                     |
|   | 4,4'-Methylenebis(2-methyl-benzenamine)<br>(4,4'-Methylenedi-o-toluidine;<br>3,3'-dimethyl-4,4'-diaminobiphenylmethane)  | 838-88-0 |                                     |
|   | p-Cresidine<br>(6-Methoxymethylaniline)  | 120-71-8 |                                     |
|   | 4,4'-Methylenebis(2-chloro-benzenamine)<br>(4,4'-Methylenebis(2-chloroaniline))  | 101-14-4 |                                     |
|   | 4,4'-Oxybis-benzenamine<br>(4,4'-Oxydianiline; 4-aminophenyl ether)  | 101-80-4 |                                     |
|   | 4,4'-Thiobis-benzenamine<br>(4,4'-Thiodianiline)   | 139-65-1 |                                     |
|   | o-Toluidine<br>(2-Methylbenzamine; 2-aminotoluene; 2-methylaniline)  | 95-53-4  |                                     |
|   | 4-Methyl-1,3-benzendiamine<br>(2,4-Diaminotoluene; toluene-2,4-diamine)  | 95-80-7  |                                     |
|   | 2,4,5-Trimethyl-benzenamine<br>(2,4,5-Trimethylaniline)  | 137-17-7 |                                     |
|   | 2-Metoxybenzenamine<br>(o-Anisidine)   | 90-04-0  |                                     |
|   | 4-(Phenylazo)-benzenamine<br>(4-Aminoazobenzene; C.I. Solvent Yellow 1)  | 60-09-3  |                                     |
|   | 2,4-Dimethyl-benzenamine<br>(2,4-Xylidine)   | 95-68-1  |                                     |
|   | 2,6-Dimethyl-benzenamine<br>(2,6-Xylidine)   | 87-62-7  |                                     |



|   |  |                          |                                     |
|---|--|--------------------------|-------------------------------------|
|   | 2,6-Dichloro-4-nitroaniline  | 99-30-9                  | Shall not be used in the production |
|   | 2-Chloro-4-nitroaniline  | 121-87-9                 |                                     |
|   | 6-Methyl-3-nitroaniline  | 99-55-8                  |                                     |
|   | Diphenylamine  | 122-39-4                 |                                     |
|   | 4-Methyl-3-nitroaniline  | 119-32-4                 |                                     |
|   | <b>AZODYE (blue colorant – mixture of the two substances)</b><br>   |                          |                                     |
|   | 2-Naphthalenesulfonic acid, 4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-7-[(4-methoxyphenyl)amino]-, chromium complex   | 118685-33-9              | Shall not be used in the production |
|   | Trisodiumbis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-)   | Unknown                  |                                     |
|  | <b>DISPERSE DYES</b><br>Disperse dyes that are classified carcinogenic and/or sensitising/allergenic.<br> |                          |                                     |
|   | C.I. Disperse Black 1; C.I. 11 365<br>(4-[(4-Aminophenyl)azo]-1-naphthalenamine)   | 6054-48-4                | Shall not be used in the production |
|   | C.I. Disperse Black 2; C.I. 11 255<br>(4-[(4-Aminophenyl)azo]-2-methoxy-5-methyl-benzenamine)  | 6232-57-1                |                                     |
|   | C.I. Disperse Blue 1; C.I. 64 500<br>(1,4,5,8-Tetraamino-9,10-anthracenedione)   | 2475-45-8                |                                     |
|   | C.I. Disperse Blue 3; C.I. 61 505<br>(1-[(2-Hydroxyethyl)amino]-4-(methylamino)-9,10-anthracenedione)  | 2475-46-9                |                                     |
|   | C.I. Disperse Blue 7; C.I. 62 500<br>(1,4-Dihydroxy-5,8-bis[(2-hydroxyethyl)amino]-9,10-anthracenedione)   | 3179-90-6                |                                     |
|   | C.I. Disperse Blue 26; C.I. 63 305<br>(1,5-Dihydroxy-4,8-bis(methylamino)-9,10-anthracenedione)  | 3860-63-7                |                                     |
|   | C.I. Disperse Blue 35<br>(1-Amino-4,5-dihydroxy-8-(methylamino)-9,10-anthracenedione)  | 12222-75-2<br>56524-77-7 |                                     |
|   | C.I. Disperse Blue 102   | 12222-97-8               |                                     |
|   | C.I. Disperse Blue 106; C.I. 111 935<br>(2-[Ethyl[3-methyl-4-[(5-nitro-2-thiazolyl)azo]phenyl]amino]-ethanol)  | 12223-01-7<br>68516-81-4 |                                     |
|   | C.I. Disperse Blue 124; C.I. 111 938<br>(2-[Ethyl[3-methyl-4-[(5-nitro-2-thiazolyl)azo]phenyl]amino]-ethanol acetate (ester))  | 61951-51-7<br>15141-18-1 |                                     |
|   | C.I. Disperse Orange 1; C.I. 11 080<br>(4-[(4-Nitrophenyl)azo]-N-phenyl-benzenamine)   | 2581-69-3                |                                     |
|   | C.I. Disperse Orange 3; C.I. 11 005<br>(4-[(4-Nitrophenyl)azo]-benzenamine)  | 730-40-5                 |                                     |
|   | C.I. Disperse Orange 11; C.I. 60 700<br>(1-Amino-2-methyl-9,10-anthracenedione)  | 82-28-0                  |                                     |
|   | C.I. Disperse Orange 13; C.I. 26 080<br>(4-[[4-(Phenylazo)-1-naphthalenyl]azo]-phenol; C.I. Solvent Orange 52)   | 6273-10-7                |                                     |
|   | C.I. Disperse Orange 37; C.I. 11 132<br>(C.I. Disperse Orange 76)  | 12223-33-5               |                                     |
|   | C.I. Disperse Orange 76  | 51811-42-8               |                                     |
|   | C.I. Disperse Red 1; C.I. 11 110<br>(2-[Ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]-ethanol)   | 2872-52-8                |                                     |
|   | C.I. Disperse Red 7; C.I. 11 150   | 4540-00-5                |                                     |

|  |  |            |                                     |
|--|--|------------|-------------------------------------|
|  | (2,2'-[[3-Chloro-4-[(4-nitrophenyl)azo]phenyl]imino]bis-ethanol)   |            |                                     |
|  | C.I. Disperse Red 11; C.I. 62 015<br>(1,4-Diamino-2-methoxy-9,10-anthracenedione)  | 2872-48-2  |                                     |
|  | C.I. Disperse Red 17; C.I. 11 210<br>(2,2'-[[3-Methyl-4-[(4-nitrophenyl)azo]phenyl]imino]bis-ethanol)  | 3179-89-3  |                                     |
|  | C.I. Disperse Yellow 1; C.I. 10 345<br>(4-[(2,4-Dinitrophenyl)amino]-phenol)   | 119-15-3   |                                     |
|  | C.I. Disperse Yellow 3; C.I. 11 855<br>(N-[4-[(2-Hydroxy-5-methylphenyl)azo]phenyl]-acetamide)   | 2832-40-8  |                                     |
|  | C.I. Disperse Yellow 9; C.I. 10 375<br>(N-(2,4-Dinitrophenyl)-1,4-benzenediamine)  | 6373-73-5  |                                     |
|  | C.I. Disperse Yellow 39  | 12236-29-2 | Shall not be used in the production |
|  | C.I. Disperse Yellow 49  | 54824-37-2 |                                     |
|  | C.I. Disperse Yellow 54<br>(2-(3-Hydroxy-2-quinoliny)-1H-indene-1,3(2H)-dione)   | 7576-65-0  |                                     |
|  | C.I. Disperse Brown 1; C.I. 11 152<br>(C.I. Disperse Orange 46; 2,2'-[[3-chloro-4-[(2,6-dichloro-4-nitrophenyl)azo]phenyl]imino]bis-ethanol)                               | 23355-64-8 |                                     |
|  | <b>OTHER RESTRICTED DISPERSE DYES</b>  |            |                                     |
|  | C.I. Disperse Orange 149   | 85136-74-9 | Shall not be used in the production |
|  | C.I. Disperse Yellow 23; C.I. 26 070<br>(4-[[4-(Phenylazo)phenyl]azo]-phenol)  | 6250-23-3  |                                     |
|  | <b>ACID DYES</b><br>Acid dyes that are classified carcinogenic and/or sensitising/allergenic.  |            |                                     |
|  | C.I. Acid Black 48; C.I. 65 005<br>(1,1'-Iminobis[4-amino-9,10-anthracenedione, sulfonated])   | 1328-24-1  | Shall not be used in the production |
|  | C.I. Acid Black 194  | 61931-02-0 |                                     |
|  | C.I. Acid Blue 113; C.I. 26 360<br>(8-(Phenylamino)-5-[[4-[(3-sulfo)phenyl]azo]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, disodium salt)                             | 3351-05-1  |                                     |
|  | C.I. Acid Orange 45; C.I. 22 195<br>(3-Amino-4-[[4'-[[4-[[4-methylphenyl)sulfonyl]oxy]phenyl]-azo][1,1'-biphenyl]-4-yl]azo]-2,7-naphthalenedisulfonic acid, disodium salt) | 2429-80-3  |                                     |
|  | C.I. Acid Orange 156   |            |                                     |
|  | C.I. Acid Red 4; C.I. 14 710<br>(4-Hydroxy-3-[(2-methoxyphenyl)azo]-1-naphthalenesulfonic acid, monosodium salt)   | 5858-39-9  |                                     |
|  | C.I. Acid Red 5, disodium salt; C.I. 14 905<br>(4-Hydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, disodium salt)  | 5858-63-9  |                                     |
|  | C.I. Acid Red 24; C.I. 16 140  |            |                                     |
|  | C.I. Acid Red 26; C.I. 16 150<br>(4-[(2,4-Dimethylphenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, disodium salt)   | 3761-53-3  |                                     |
|  | C.I. Acid Red 73; C.I. 27 290<br>(7-Hydroxy-8-[[4-(phenylazo)phenyl]azo]-1,3-naphthalenedisulfonic acid, disodium salt)  | 5413-75-2  |                                     |
|  | C.I. Acid Red 85; C.I. 22 245<br>(7-Hydroxy-8-[[4'-[[4-[[4-methylphenyl)sulfonyl]oxy]phenyl]azo][1,1'-biphenyl]-4-yl]azo]-1,3-naphthalenedisulfonic acid, disodium salt)   | 3567-65-5  |                                     |





|   |   |                        |                                     |
|---|---|------------------------|-------------------------------------|
|   | C.I. Acid Red 114; C.I. 23 635<br><i>(8-[[3,3'-Dimethyl-4'-[[4-[[4-methylphenyl)sulfonyl]oxy]-phenyl]azo]][1,1'-biphenyl]-4-yl]azo]-7-hydroxy-1,3-naphthalenedisulfonic acid, disodium salt)</i>  | 6459-94-5              |                                     |
|    | <b>CATIONIC (BASIC) DYES</b><br>Cationic (basic) dyes that are classified carcinogenic and/or sensitising/allergenic.<br>                                  |                        |                                     |
|   | C.I. Basic Black 1  |                        |                                     |
|   | C.I. Basic Green 1; C.I. 42 040<br><i>(Brilliant Green; [4-[4-(diethylamino)benzhydrylene]-cyclohexa-2,5-dien-1-ylidene]diethylammonium hydrogen sulphate)</i>  | 633-03-4               |                                     |
|   | C.I. Basic Green 4; C.I. 42 000<br><i>(Malachite green; N-[4-[[4-(dimethylamino)phenyl]-phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium chloride)</i>   | 569-64-2<br>18015-76-4 |                                     |
|   | C.I. Basic Red 9; C.I. 42 500<br><i>(4-[[4-Aminophenyl](4-imino-2,5-cyclohexadien-1-ylidene)-methyl]-benzenamine monohydrochloride)</i>   | 569-61-9<br>25620-78-4 |                                     |
|   | C.I. Basic Red 12; C.I. 48 070<br><i>(2-[3-(1,3-Dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl-3H-indolium chloride)</i>   | 6320-14-5              | Shall not be used in the production |
|   | C.I. Basic Red 46<br><i>(Sulfuric acid, dimethyl ester, compound with N-methyl-N-[4-[[1-methyl-1H-1,2,4-triazol-5-yl]azo]phenyl]benzylamine (1:1))</i>  | 62163-53-5             |                                     |
|   | C.I. Basic Red 46 (Astrazon red FBL)  | 12221-69-1             |                                     |
|   | C.I. Basic Violet 3; C.I. 42 555<br><i>([4-[4,4'-bis(Dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride)</i>  | 548-62-9               |                                     |
|   | C.I. Basic Violet 14; C.I. 45 210<br><i>(4-[[4-Aminophenyl](4-imino-2,5-cyclohexadien-1-ylidene)-methyl]-2-methyl-benzenamine) monohydrochloride)</i>   | 632-99-5               |                                     |
|  | <b>DIRECT DYES (SUBSTANTIVE DYES)</b><br>Direct dyes (substantive dyes) that are classified carcinogenic, teratogenic and/or sensitising/allergenic.<br> |                        |                                     |
|   | C.I. Direct Black 38; C.I. 30 235<br><i>(4-Amino-3-[[4'-[[2,4-diaminophenyl]azo]][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, disodium salt)</i>   | 1937-37-7              | Shall not be used in the production |
|   | C.I. Direct Blue 1; C.I. 24 410<br><i>(6,6'-[[3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl]bis(azo)]bis[4-amino-5-hydroxy-1,3-naphthalenedisulfonic acid, tetrasodium salt)</i>  | 2475-45-8<br>2610-05-1 |                                     |
|   | C.I. Direct Blue 6; C.I. 22 610<br><i>(3,3'-[[1,1'-Biphenyl]-4,4'-diyl]bis(azo)]bis[5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid, tetrasodium salt)</i>   | 2602-46-2              |                                     |
|   | C.I. Direct Blue 15; C.I. 24 400<br><i>(3,3'-[[3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl]bis(azo)]bis[5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid, tetrasodium salt)</i>   | 2429-74-5              |                                     |
|   | C.I. Direct Blue 78; C.I. 34 200<br><i>(2-[[4-[[4-[[1-Hydroxy-6-(phenylamino)-3-sulfo-2-naphthalenyl]azo]-1-naphthalenyl]azo]-6-sulfo-1-naphthalenyl]azo]-1,4-benzenedisulfonic acid, tetrasodium salt)</i>                                 | 2503-73-3              |                                     |

|  |   |            |  |
|--|---|------------|--|
|  | C.I. Direct Brown 95; C.I. 30 145<br>(Disodium-[5-[[4'-[[2,6-dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]phenyl]azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoato(4-)]-cuprate(2-)) | 16071-86-6 |  |
|  | C.I. Direct Red 28; C.I. 22 120<br>(3,3'-[[1,1'-Biphenyl]-4,4'-diylbis(azo)]bis[4-amino-1-naphthalenesulfonic acid, disodium salt])   | 573-58-0   |  |




| FINISHING TREATMENT & SUNDRY  |   |  |   |
|---|---|--|---|
|    | FORMALDEHYDE<br>                    |  |   |
|   | Formaldehyde – free and partly hydrolysable   | 50-00-0<br>++                              | Maximum accepted concentration limits in finished textiles and clothing: <ul style="list-style-type: none"> <li>• In textiles for children, and textiles that normally come in direct contact with skin: 30 mg/kg textile;</li> <li>• In textiles that normally do not come in direct contact with skin: 100 mg/kg textile</li> </ul> |
|   | METALS AND METAL COMPOUNDS<br>  |  |   |
|   | Mercury and mercury compounds   | 7439-97-6<br>++                            | Maximum content: 0.02 ppm (0.02 mg/kg) in any part of finished product.   |
|   | Cadmium and cadmium compounds   | 7440-43-9<br>++                            | Maximum content: 0.10 ppm (0.10 mg/kg) in any part of finished product.   |
|  | Nickel and nickel compounds   | 7440-02-0<br>++                            | Maximum content: 4.0 ppm (4.0 mg/kg) in any part of finished product.   |
|   | Lead, lead alloys and lead compounds  | 7439-92-1<br>++                            | Maximum content: 1.0 ppm (1.0 mg/kg) in any part of finished product.<br>Accessories: Max concentration 100 ppm.  |
|   | Antimony and antimony compounds   | 7440-36-0<br>++                            | Concentration in polyester fibres shall not exceed 260 ppm. Other fibres and textiles: Max. 30 ppm  |
|   | Arsenic and arsenic compounds   | 7440-38-2<br>++                            | Maximum content: 0.20 ppm (0.20 mg/kg) in any part of finished product.   |
|  | Chromium(VI) and its salts<br><br>Potassium dichromate<br>Sodium dichromate   | 7440-47-3<br>++<br>7778-50-9<br>10588-01-9 | Max. content: 0.1 ppm (0.1 mg/kg) in any part of finished product. Chromium in skin and leather: Max. 3.0 ppm   |
|  | Chromium(III) and its salts   | 7440-47-3<br>++                            | Maximum content: 2.0 ppm (2.0 mg/kg) in any part of finished product.   |
|   | Cobalt and cobalt compounds   | 7440-48-4<br>++                            | Maximum content: 4.0 ppm (4.0 mg/kg) in any part of finished product.   |





|   |   |                 |   |
|---|---|-----------------|---|
|   | Tin and inorganic tin compounds   | 7440-31-5<br>++ | Maximum content: 4.0 ppm (4.0 mg/kg) in any part of finished product.                                 |
|   | Barium and barium compounds (readily soluble)   | 7440-39-3<br>++ | Maximum content: 10 ppm (10 mg/kg) in any part of finished product.                                   |
|   | Zinc and zinc compounds   | 7440-66-6<br>++ | Maximum content: 60 ppm (60 mg/kg) in any part of finished product.                                   |
|   | Copper and copper compounds   | 7440-50-8<br>++ | Maximum content: 50 ppm (50 mg/kg) in any part of finished product.                                   |
|  | <b>ORGANOTIN COMPOUNDS</b><br> |                 |   |
|   | Tributyltin (TBT) and tributyltin compounds   | 688-73-3<br>++  | <b>Shall not be used in the production</b>  |
|   | Triphenyltin (TPHT) and triphenyltin compounds  | 668-34-8<br>++  |   |
|   | Monobutyltin (MBT) compounds  | ++              | <b>Shall not be used in the production</b>  |
|   | Monooctyltin (MOT) compounds  | ++              |   |
|   | Dibutyltin (DBT) and dibutyltin compounds   | ++              |   |
|   | Diocetyl tin compounds  | ++              |   |
|   | Tetrabutyl tin compounds  | ++              |   |
|   | Tetrabutyltin ( <i>Tetrabutylstannane</i> ; <i>tetra-n-butyltin</i> ; <i>TeBT</i> )                             | 1461-25-2       |   |
|   | Tetraoctyltin   | 3590-84-9       |   |
|   | Hexabutyl-distannoxane ( <i>Tributyltin oxide</i> ; <i>bis(tributyltin)-oxide</i> ; <i>TBTO</i> )               | 56-35-9         |   |
|   | Tricyclohexyltin (TCyHT) compounds  | ++              |   |
|   | Tricyclohexyltin hydroxide  | 1321-70-5       |   |
|   | Triocetyl stannane ( <i>Triocetyl tin</i> )   | 869-59-0        | Maximum accepted <u>total</u> concentration of organic tin compounds:<br>2.5 mg/kg clothing (2.5 ppm) |
|   | Tripropyltin; (TPT)   |                 |   |


## FLAME RETARDANTS

|   |   |                         |  |
|---|---|-------------------------|--|
|  | <b>BROMINATED FLAME RETARDANTS</b><br> |                         |  |
|   | Pentabromodiphenylether ( <i>pentaBDE</i> )   | 32534-81-9              | <b>Shall not be used in the production</b> |
|   | Octabromodiphenylether ( <i>octaBDE</i> )   | 32536-52-0              |  |
|   | Tris-(2,3-dibromopropyl)-phosphate ( <i>TRIS</i> ; <i>TrisBP</i> )  | 126-72-7                |  |
|   | Polybrominated biphenyls ( <i>PBB</i> )   | 59536-65-1              |  |
|   | 1,1'-Oxybis(2,3,4,5,6-pentabromo)-benzene ( <i>deca-Bromodiphenylether</i> ; <i>dekaBDE</i> )                             | 1163-19-5               |  |
|   | Hexabromocyclododecane ( <i>HBCDD</i> )   | 25637-99-4<br>3194-55-6 |  |
|   | 2,3-Dibromo-1-propanol-hydrogenphosphate  | 5412-25-9               |  |
|   | 2,2-bis(Bromomethyl)-1,3-propanediol ( <i>Dibromoneopentyl glycol</i> )   | 3296-90-0               |  |
|   | Tetrabromobisphenol A ( <i>TBBP-A</i> )   | 79-94-7                 |  |
|  | <b>OTHER FLAME RETARDANTS</b><br>      |                         |  |


|  |   |                 |                                     |
|--|---|-----------------|-------------------------------------|
|  | Tris-(aziridinyl)-phosphinoxide<br>(TEPA)   | 545-55-1        | Shall not be used in the production |
|  | Short-chained chlorinated paraffins<br>(SCCPs; chloroalkanes; C10-13)                         | 85535-84-8      |                                     |
|  | Medium-chained chlorinated paraffins, C14-C17 (MCCPs)   | 85535-85-9      |                                     |
|  | Paraffin waxes and hydrocarbon waxes, chlorinated   | 63449-39-8      |                                     |
|  | Phosphoric acid tris(2-methylphenyl)-ester<br>(Tri-o-toly- phosphate; tri-o-cresyl-phosphate) | 78-30-8         |                                     |
|  | 1,3-Dichloro-2-propanol-phosphate (3:1)<br>(Tris(1,3-dichloro-2-propyl)-phosphate; TDCP)      | 13674-87-8      |                                     |
|  | Tris(2-chloroethyl)-phosphate<br>(2-Chloro-ethanol, phosphate (3:1); TCEP)                    | 115-96-8        |                                     |
|  | Potassium hexafluorozirconate   | 16923-95-8      |                                     |
|  | Potassium hexafluorotitanate  | 16919-27-0      |                                     |
|  | Compounds of antimony<br>Antimony trioxide  | ++<br>1309-64-4 |                                     |

| PHTHALATES  |   |                          |                                     |
|---|---|--------------------------|-------------------------------------|
|  | <b>PHTHALATES</b><br>Mainly used as plasticisers in PVC prints but may also be used as carriers.  |                          |                                     |
|   |   |                          |                                     |
|   | Di(2-ethylhexyl)-phthalate<br>(DEHP)  | 117-81-7                 | Shall not be used in the production |
|   | Dibutylphthalate<br>(DBP)   | 84-74-2                  |                                     |
|   | Butylbenzylphthalate<br>(BBP)   | 85-68-7                  |                                     |
|   | Di-iso-nonylphthalate<br>(DINP)   | 28553-12-0<br>68515-48-0 |                                     |
|   | Diisodecylphthalate<br>(DIDP)   | 26761-40-0<br>68515-49-1 |                                     |
|   | Di-n-octylphthalate<br>(DNOP)   | 117-84-0                 |                                     |
|   | Di-iso-butylphthalate<br>(DIBP)   | 84-69-5                  |                                     |
|   | Dimethylphthalate<br>(DMP) Carrier  | 131-11-3                 |                                     |
|   | Diethylphthalate<br>(DEP) Carrier   | 84-66-2                  |                                     |

| MICELLANEOUS  |   |                |  |
|---|---|----------------|--|
|  | <b>POLYCYCLIC COMPOUNDS</b><br>  |                |  |
|   | Polycyclic aromatic hydrocarbons<br>(PAH)<br>Acridine   | ++<br>260-94-6 | The content of PAH in any mineral oil applied shall not exceed 1.0 % by mass |
|  | <b>MISCELLANEOUS</b><br>   |                |  |
|   | Bisphenol A<br>(BPA)  | 80-05-7        | Shall not be used in the production  |
|   | Perfluorooctane-sulphonate (PFOS) and PFOS related compounds<br>(Perfluorooctanyl-sulphonates with the formula C <sub>8</sub> F <sub>17</sub> SO <sub>2</sub> X where X = OH, metallic salt, halogenide, amide, and other derivatives including polymers) | ++             |  |
|   | Perfluorooctane-carboxylic acid (PFOA) and PFOA   | 335-67-1       |  |



|   |  |   |                                     |
|---|--|---|-------------------------------------|
|   | compounds  | 3825-26-1<br>335-95-5<br>2395-00-8<br>335-93-3<br>335-66-0<br>376-27-2<br>3108-24-5<br>++ | Shall not be used in the production |
|   | Linear alkydbenzene sulfonates (LAS)   | ++  |                                     |
|   | Ethylenediaminetetraacetic-acid (EDTA)   | 60-00-4   |                                     |
|   | Diethylenetriaminepentaacetic-acid sodium salt (DTPA)                          | 140-01-2  |                                     |
|   | Nicotine   | 54-11-5<br>65-30-5  |                                     |
|   | 4-Nitrobenzenamine (p-Nitroaniline; C.I. Azoic Diazo Component 37; C.I. 37035) | 100-01-6  |                                     |
|  | Toluene-2,4-diisocyanate (TDI; 2,4-diisocyanato-1-methyl-benzene)              | 584-84-9  |                                     |
|   | Nitrobenzene   | 98-95-3   |                                     |
|   | N-Butylbenzenesulfonamide  | 3622-84-2   |                                     |

### ORGANOCHLORINES

|   |                                  |            |                                     |
|---|----------------------------------|------------|-------------------------------------|
| <b>ORGANOCHLORINES</b><br> |                                  |            |                                     |
|   | Polychlorinated biphenyls (PCB)  | 1336-36-3  | Shall not be used in the production |
|   | Polychlorinated terphenyls (PCT) | 61788-33-8 |                                     |

### BIOCIDES / PESTICIDES

Biocides/Pesticides are used in the production of natural fibers like cotton, ramie, flax, wool etc. to protect against insects, fungus, plants etc.

|   |  |  |  |
|---|--|--|--|
| <b>CHLORINATED PHENOLS</b><br> |  |  |  |
|   | Pentachlorophenol and its salts or esters  | 87-86-5<br>++  | Shall not be used in the production, or during storage and transport.<br><br>Max. concentration: 2.0 mg/kg textile (2.0 ppm) |
|   | Tetrachlorophenol and its salts and esters<br>Including tetrachlorophenoxy compounds | 25167-83-3<br>935-95-5<br>58-90-2<br>4901-51-3<br>++ |  |
|   | 5-Chloro-2-(2,4-dichlorophenoxy)-phenol (Triclosan)                                  | 3380-34-5  |  |
|   | Chlorinated phenols, and salts and esters of these                                   | ++   |  |
| <b>OTHER</b><br>               |  |  |  |
|   | Dimethylfumarate (DMF)   | 624-49-7   | Shall not be used in the production, or during storage and transport.  |
|   | Methylbromide  | 74-83-9  |  |
|   | DDT  | 50-29-3<br>789-02-6                                  | Shall not be used in the production, or during storage and transport.  |
|   | Aldrin   | 309-00-2   |  |
|   | Chlordan   | 57-74-9  |  |

|   |                     |  |
|---|---------------------|--|
| Chlordecone   | 143-50-0            | <p>Max. concentration:<br/>2.0 mg/kg textile (2.0 ppm)</p> <p>Shall not be used in the<br/>production, or during storage<br/>and transport.</p> <p>Max. concentration:<br/>2.0 mg/kg textile (2.0 ppm)</p> |
| Dieldrin  | 60-57-1             |  |
| Endrin  | 72-20-8             |  |
| Heptachlor  | 76-44-8             |  |
| Mirex   | 2385-85-5           |  |
| Toxaphene<br>( <i>Campechlor (ISO)</i> )                                | 8001-35-2           |  |
| Hexachlorobenzene   | 118-74-1            |  |
| Hexabromo-1,1'-biphenyl<br>( <i>BP-6</i> )                              | 36355-01-8          |  |
| Lindane<br>( <i>γ-HCH, including mixtures of isomers of HCH (BHC)</i> ) | 58-89-9<br>608-73-1 |  |
| α-Hexachlorocyclohexane   | 319-84-6            |  |
| β-Hexachlorocyclohexane   | 319-85-7            |  |
| δ-Hexachlorocyclohexane   | 319-86-8            |  |
| 2,4,5-T<br>( <i>(2,4,5-Trichlorophenoxy)acetic acid</i> )               | 93-76-5             |  |
| Captafol  | 2425-06-1           |  |
| Chlordimeform   | 1970-95-9           |  |
| Dinozeb and its salts   | 88-85-7             |  |
| Methamidophos   | 10265-92-6          |  |
| Monocrotophos   | 6923-22-4           |  |
| Parathion   | 56-38-2             |  |
| Methylparathion   | 298-00-0            |  |
| DDD<br>( <i>1,1-Dichloro-2,2-bis(p-chlorophenyl)ethane</i> )            | 53-19-0<br>72-54-8  |  |
| Propethamphos   |                     |  |
| (1,1'-Biphenyl)-2-ol<br>( <i>o-Phenylphenol; OPP</i> )                  | 90-43-7             |  |
| Chlorobenzilate   | 510-15-6            |  |
| Phosphamidon  |                     |  |

## OTHER FACTORS OF IMPORTANCE

### pH VALUE

Clothing and textiles for babies or that come in direct contact with skin: pH 4,0-7,5

Clothing and textiles that do not come into direct contact with skin: pH 4,0-9,0



## METHODS OF ANALYSIS

The chemical substances listed are quite different. However, for quality control to check that the supplied goods are within specified requirements, we think the number of standardised methods for chemical analysis can be limited to three. The sampling and preparation procedures should also be standardised to enable reproducible results.

### **Organic substances**

Recommended method of analysis for **organic substances** is capillary column gas chromatography-massspectrometry (GC-MS). With standardised preparation procedures, the detection limit is in the range 0,1-20 mg per kilo textile. Detection of different organic substances may require use of different types of capillary columns.

An alternative method of analysis may be high pressure liquid chromatography (HPLC).

### **Dyes and colorants**

For **dyes and colourants**, the recommended test method is Öko-Tex method M4.

### **Metals and metal compounds**

For **metals**, test samples may be analysed using atomic absorption spectrophotometry (AAS) or inductively coupled plasma mass spectrometry (ICP-MS). The preparing procedures for these analysis are tough – only the metallic elements will be identified in the analysis, not the individual compounds.

Tinorganic compounds must be analysed according to the procedure for organic compounds.

Chemical analysis are carried out to verify that the products are according to specifications and do not contain banned substances. Samples for analysis should be taken from parts of the products where problematic substances are expected to be found – not necessarily representing the average of the whole product.