

**Proposed approach under the *Canadian Environmental Protection Act, 1999* to address polymers on the Domestic Substances List that were identified as priorities during categorization**

**Consultation Document**

**Environment Canada  
Health Canada**

**March 2012**

**Proposed approach under the *Canadian Environmental Protection Act, 1999* to address polymers on the Domestic Substances List that were identified as priorities during categorization**

**Intent**

This consultation document describes a proposed approach by Environment Canada and Health Canada to address polymers on the Domestic Substances List (DSL) that were identified as priorities during the categorization process. It is the intent of this document to provide background information on the proposed approach to interested parties and stakeholders and to solicit their feedback.

**Background**

The *Canadian Environmental Protection Act, 1999* (CEPA 1999) requires the Minister of the Environment and the Minister of Health to conduct screening assessments of substances that have met the categorization criteria set out in the Act to determine whether these substances present or may present a risk to the environment or to human health.

Upon completion of categorization in September 2006, approximately 4300 substances were identified as priorities for further action. Polymers account for a substantial portion of the substances identified as priorities, and the Government of Canada has developed a proposed approach for conducting screening assessments under the Chemicals Management Plan to determine whether these polymers meet the criteria set out in section 64 of CEPA 1999. Under section 64, a substance is considered “toxic” if it is entering or may enter the environment in a quantity or concentration or under conditions that:

- (a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity;
- (b) constitute or may constitute a danger to the environment on which life depends; or
- (c) constitute or may constitute a danger in Canada to human life or health.

**Description of the proposed approach for polymers**

The proposed approach draws on existing expertise within Environment Canada and Health Canada, as well as international work on the regulation of polymers. Key elements of the proposed approach are highlighted in the following sections, and a flowchart illustrating the full approach can be found in Appendix 1.

## 1. Identification of candidate substances

Candidate substances for the proposed approach must meet each of the following three criteria:

- a) The substance must be listed on the DSL and must have been identified as a priority during categorization.
- b) The substance must meet the definition of a polymer, as described in subsection 1(1)<sup>1</sup> of the *New Substances Notification Regulations (Chemicals and Polymers)*.
- c) The substance must not have been previously addressed under CEPA 1999 (for example, Challenge, Rapid Screening Approach, other assessment activities, etc.).

Using the proposed approach, approximately 570 candidate substances have been identified (see Appendix 2).

## 2. Preliminary data collection through the DSL inventory update (DSL IU) initiative

It is proposed that information gathering on the approximately 570 candidate substances take place in two stages. Stage one consists of preliminary information gathering through the DSL IU initiative. Note that additional separate consultations will take place on the survey design and data requirements for the entire DSL IU initiative. The reported information will be used by Environment Canada and Health Canada to determine whether a candidate substance is in commerce in Canada in a quantity above the reporting threshold. A reporting threshold of 1000 kg per calendar year is proposed for polymers in the DSL IU survey. This is equivalent to the threshold for notification of polymers under the New Substances program. Stage two of information gathering will take place at a later date and will involve the collection of polymer-specific information for substances identified to be in commerce in a quantity above the reporting threshold (see Section 3b below for details). The two surveys will be coordinated to limit duplicate data requirements for stakeholders.

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<sup>1</sup> "Polymer" means a substance that consists of

- (a) molecules characterized by the sequence of one or more types of monomer units;
- (b) greater than 50% by weight of molecules having three or more monomer units that are covalently bound to one or more other monomer units or reactants;
- (c) less than 50% by weight of molecules of the same molecular weight; and
- (d) molecules distributed over a range of molecular weights whose differences in molecular weights are primarily attributable to differences in the number of monomer units.

### 3. Activities after the completion of DSL IU data gathering

The next steps in the proposed approach differ, depending on whether or not exposure to the environment or the general population is expected.

#### *a) Substances for which exposure is not expected*

A candidate polymer will be considered “not in commerce” at the reporting threshold if the DSL IU survey shows no report of industrial activity (import or manufacture) above the reporting threshold of 1000 kg per calendar year. Since results from the DSL IU survey indicate that these polymers are currently not in use in a quantity above the specified reporting threshold, the likelihood of exposure to these polymers in Canada resulting from commercial activity is low.

For polymers for which exposure is not expected, it is proposed that they do not meet any of the criteria in section 64 of CEPA 1999.

Nevertheless, some of these polymers may have highly hazardous properties, as identified by the presence of one or more hazard indicators (for example, properties or characteristics that suggest the polymer has the potential to be highly hazardous to human health and/or the environment). For polymers that have highly hazardous properties, there is concern that new activities for these polymers that have not been identified or assessed under CEPA 1999 could lead to the polymers meeting the criteria as set out in section 64 of the Act. It is proposed that these polymers be addressed by applying the Significant New Activity (SNAc) provisions of CEPA 1999 so that new activity in relation to these substances will give rise to a human health and ecological screening risk assessment.

For polymers for which exposure is not expected and that do not have highly hazardous properties, it is proposed that the Government of Canada will not take further action at this time.

#### *b) Substances for which there is a potential for exposure*

Polymers that are found to be in commerce in a quantity above the reporting threshold through the DSL IU initiative may pose a potential for exposure. These polymers will be subjected to a second stage of information-gathering initiatives. It is proposed that stage two of information gathering take the form of a section 71 survey, designed to require the importer and/or manufacturer of the polymer(s) to provide the Government of Canada with substance-specific information. The proposed survey will require the submission of basic information, consistent with the information requirements in Schedule 9 of the *New Substances Notification Regulations (Chemicals and Polymers)*. Survey respondents will also be required to answer questions that allow the Government of Canada to evaluate whether the reported polymer meets the criteria for

reduced regulatory requirement (RRR)<sup>2</sup>. Meeting RRR criteria is generally considered as an indication of low hazard. In addition, it is proposed that respondents be required to provide readily available supporting information on the polymer (for example, information required in Schedule 10 of the *New Substances Notification Regulations (Chemicals and Polymers)*).

(i) Evaluation of the RRR status by the Government of Canada

Based on the stage two survey results, Environment Canada and Health Canada will determine whether the reported polymer meets the conditions for RRR. If the RRR polymer criteria are met, it is proposed that this form of the polymer does not meet any of the criteria in section 64 of CEPA 1999 based on anticipated low hazard. Anyone who intends to manufacture or import the polymer in Canada in a form that no longer meets the RRR criteria must file a notification before commencing the proposed activity.

Substances that do not meet the RRR polymer criteria will undergo further evaluation in screening assessments.

(ii) Screening assessment

For polymers that do not meet the RRR criteria, it is proposed that they will be evaluated in further screening assessments in order to determine whether they meet any of the criteria in section 64 of CEPA 1999. As with other assessment approaches, polymers subject to screening assessments may be assessed individually, as a group or as a class, to gain efficiencies. Where appropriate, computational techniques and/or read-across may be used to inform assessments, and assessment activities may be supported by collaboration with other jurisdictions.

When the evaluation finds that a polymer meets one or more of the criteria in section 64 of CEPA 1999, appropriate risk management measures will be proposed. For a polymer that does not meet any of the criteria in section 64 of CEPA 1999, two possible outcomes are proposed. If the polymer possesses highly hazardous properties, as identified by the presence of one or more hazard indicators (e.g., properties or characteristics that suggest the polymer has the potential to be highly hazardous to human health and/or the environment), it is proposed that the Significant New Activity (SNAc) provisions of CEPA 1999 be applied so that new activity in relation to these substances will give rise to a human health and ecological screening risk assessment. If the polymer does not

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<sup>2</sup> Reduced regulatory requirement (RRR) polymers are described in section 9 of the *New Substances Notification Regulations (Chemicals and Polymers)*. These are polymers with a high number average molecular weight (Mn) that have a limited percentage of low-molecular-weight components (< 1000 daltons), are chemically stable and do not contain certain reactive or cationic moieties. For additional details, see section 3.4.1.3 of the *Guidelines for the Notification and Testing of New Substances: Chemicals and Polymers (Version 2005)*.

possess highly hazardous properties, it is proposed that the Government of Canada take no further action at this time.

(iii) No survey responses, but evidence of direct exposure potential

If a candidate polymer is considered “not in commerce” at the reporting threshold of the DSL IU survey because there are no reports of industrial activity (import or manufacture) above the reporting threshold of 1000 kg per calendar year, but the polymer has potentially highly hazardous properties, as identified by the presence of one or more hazard indicators, additional entry characterization will be conducted to identify sources of potential direct exposure to Canadians.

It is proposed that polymers with high-hazard flags coupled with potential for direct exposure to the general population undergo further assessment in order to inform risk characterization.

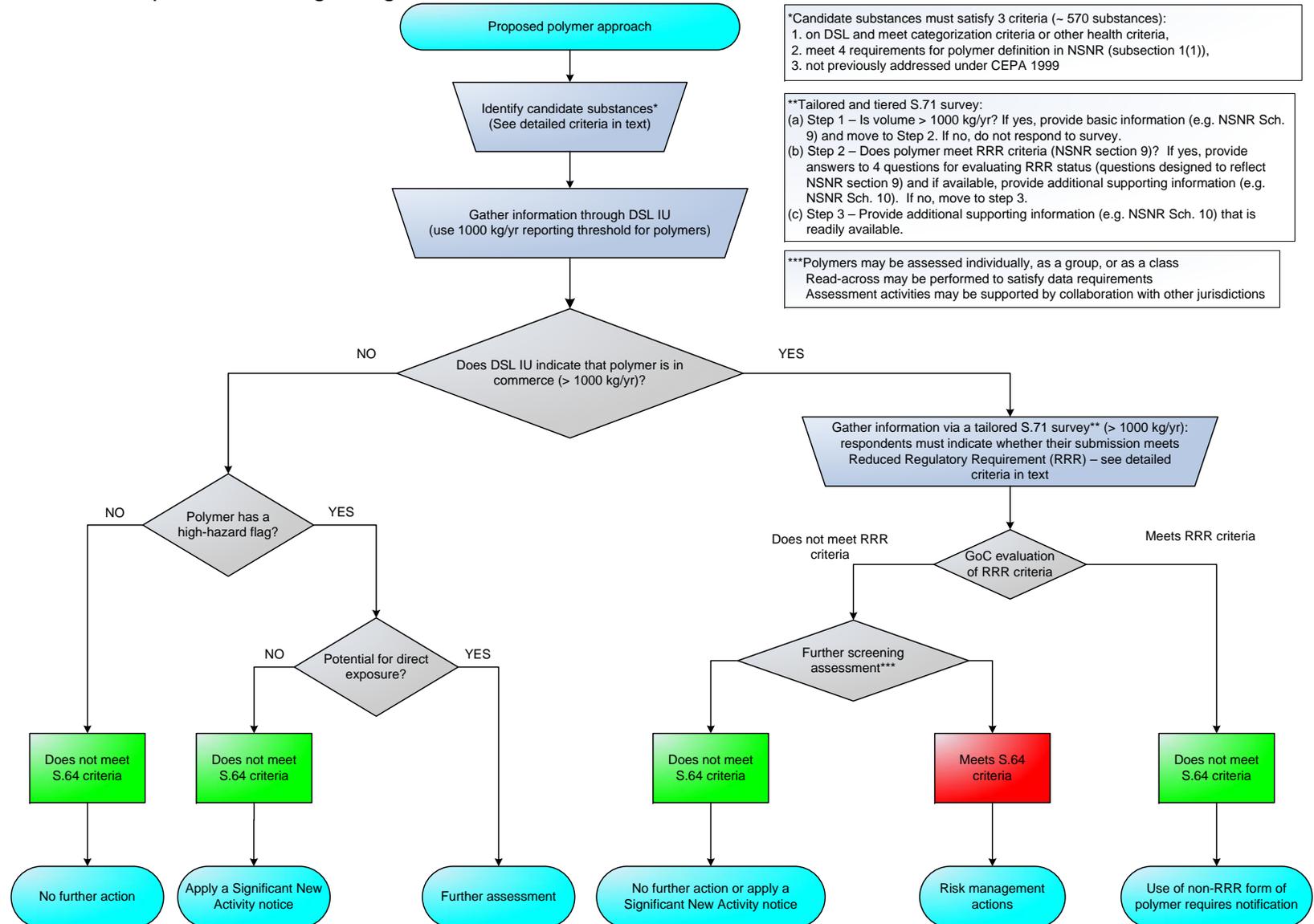
## Relevant legislation and guidelines

Canada. 1999. *Canadian Environmental Protection Act, 1999*. S.C., 1999, c. 33, Canada Gazette, Part III, vol. 22, no. 3. Available from: <http://www.gazette.gc.ca/archives/p3/1999/g3-02203.pdf>

Canada. 2005. *Canadian Environmental Protection Act, 1999: New Substances Notification Regulations (Chemicals and Polymers)*. P.C. 2005-1484, 31 August 2005, SOR/2005-247. Canada Gazette, Part II, vol. 139, no. 19, p. 1864–1928. Available from: <http://www.gazette.gc.ca/archives/p2/2005/2005-09-21/pdf/g2-13919.pdf>

Canada, Dept. of the Environment, Dept. of Health. 2006. Guidelines for the Notification and Testing of New Substances: Chemicals and Polymers, Pursuant to Section 69 of the *Canadian Environmental Protection Act, 1999*—Version 2005 [cited 2011 Jun 2]. Available from: <http://www.ec.gc.ca/subsnouvelles-newsups/default.asp?lang=En&xml=FA59945E-8DD5-D745-8A55-EA6667737FE5>

**Appendix 1.** Flowchart for the proposed approach to address polymers on the Domestic Substances List that were identified as priorities during categorization



**Appendix 2.** Draft list of polymeric substances on the Domestic Substances List to be considered in the approach

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 1338-51-8           | Benzenesulfonamide, <i>ar</i> -methyl-, reaction products with formaldehyde                  |
| 1401-55-4           | Tannins  |
| 1415-93-6           | Humic acids  |
| 8050-81-5           | Simethicone  |
| 8061-51-6           | Lignosulfonic acid, sodium salt  |
| 8061-52-7           | Lignosulfonic acid, calcium salt   |
| 8061-53-8           | Lignosulfonic acid, ammonium salt  |
| 8062-15-5           | Lignosulfonic acid   |
| 8075-74-9           | Lignosulfonic acid, chromium iron salt   |
| 9000-01-5           | Gum arabic   |
| 9000-07-1           | Carrageenan  |
| 9002-92-0           | Poly(oxy-1,2-ethanediyl), $\alpha$ -dodecyl- $\omega$ -hydroxy-                              |
| 9002-93-1           | Poly(oxy-1,2-ethanediyl), $\alpha$ -[4-(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy- |
| 9002-98-6           | Aziridine, homopolymer   |
| 9003-01-4           | 2-Propenoic acid, homopolymer  |
| 9003-04-7           | 2-Propenoic acid, homopolymer, sodium salt   |
| 9003-05-8           | 2-Propenamide, homopolymer   |
| 9003-07-0           | 1-Propene, homopolymer   |
| 9003-08-1           | 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde                                     |
| 9003-11-6           | Oxirane, methyl-, polymer with oxirane   |
| 9003-17-2           | 1,3-Butadiene, homopolymer   |
| 9003-18-3           | 2-Propenenitrile, polymer with 1,3-butadiene   |
| 9003-20-7           | Acetic acid ethenyl ester, homopolymer   |
| 9003-22-9           | Acetic acid ethenyl ester, polymer with chloroethene   |
| 9003-27-4           | 1-Propene, 2-methyl-, homopolymer  |
| 9003-28-5           | 1-Butene, homopolymer  |
| 9003-31-0           | 1,3-Butadiene, 2-methyl-, homopolymer  |
| 9003-35-4           | Phenol, polymer with formaldehyde  |
| 9003-37-6           | Butanal, polymer with benzenamine  |
| 9003-39-8           | 2-Pyrrolidinone, 1-ethenyl-, homopolymer   |
| 9003-49-0           | 2-Propenoic acid, butyl ester, homopolymer   |
| 9003-50-3           | Heptanal, polymer with benzenamine   |
| 9003-53-6           | Benzene, ethenyl-, homopolymer   |
| 9003-55-8           | Benzene, ethenyl-, polymer with 1,3-butadiene  |
| 9003-56-9           | 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene                              |
| 9004-36-8           | Cellulose, acetate butanoate   |
| 9004-39-1           | Cellulose, acetate propanoate  |
| 9004-57-3           | Cellulose, ethyl ether   |
| 9004-58-4           | Cellulose, ethyl 2-hydroxyethyl ether  |
| 9004-66-4           | Iron dextran   |
| 9004-70-0           | Cellulose, nitrate   |
| 9004-82-4           | Poly(oxy-1,2-ethanediyl), $\alpha$ -sulfo- $\omega$ -(dodecyloxy)-, sodium salt              |
| 9005-09-8           | 2-Butenedioic acid (Z)-, polymer with chloroethene and ethenyl acetate                       |
| 9005-12-3           | Poly[oxy(methylphenylsilylene)]  |
| 9005-27-0           | Starch, 2-hydroxyethyl ether   |
| 9005-35-0           | Alginic acid, calcium salt   |
| 9005-37-2           | Alginic acid, ester with 1,2-propanediol   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 9006-03-5           | Rubber, chlorinated  |
| 9006-26-2           | 2,5-Furandione, polymer with ethene  |
| 9006-65-9           | Dimethicone  |
| 9007-34-5           | Collagens  |
| 9008-63-3           | Naphthalenesulfonic acid, sodium salt, polymer with formaldehyde   |
| 9010-77-9           | 2-Propenoic acid, polymer with ethene  |
| 9010-79-1           | 1-Propene, polymer with ethene   |
| 9010-85-9           | 1,3-Butadiene, 2-methyl-, polymer with 2-methyl-1-propene  |
| 9010-86-0           | 2-Propenoic acid, ethyl ester, polymer with ethene   |
| 9010-88-2           | 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate   |
| 9011-05-6           | Urea, polymer with formaldehyde  |
| 9011-14-7           | 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer   |
| 9011-15-8           | 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, homopolymer   |
| 9016-00-6           | Poly[oxy(dimethylsilylene)]  |
| 9016-83-5           | Formaldehyde, polymer with methylphenol  |
| 9017-27-0           | Benzene, ethenylmethyl-, polymer with (1-methylethenyl)benzene   |
| 9017-72-5           | Naphthalenesulfonic acid, polymer with formaldehyde and 4,4'-sulfonylbis[phenol]   |
| 9022-96-2           | 1-Butanol, titanium(4+) salt, homopolymer  |
| 9036-19-5           | Poly(oxy-1,2-ethanediyl), $\alpha$ -[(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy-   |
| 9038-95-3           | Oxirane, methyl-, polymer with oxirane, monobutyl ether  |
| 9039-25-2           | Formaldehyde, polymer with methylphenol and phenol   |
| 9040-65-7           | Formaldehyde, polymer with nonylphenol   |
| 9045-28-7           | Starch, acetate  |
| 9049-71-2           | Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -hydro- $\omega$ -hydroxy-, ether with $\beta$ -D-fructofuranosyl $\alpha$ -D-glucopyranoside |
| 9051-57-4           | Poly(oxy-1,2-ethanediyl), $\alpha$ -sulfo- $\omega$ -(nonylphenoxy)-, ammonium salt  |
| 9060-53-1           | 2,5-Furandione, dihydro-3-(tetrapropenyl)-, polymer with 1-amino-2-propanol and 1,2-ethanediol   |
| 9063-38-1           | Starch, carboxymethyl ether, sodium salt   |
| 9066-50-6           | Lignosulfonic acid, chromium salt  |
| 9082-00-2           | Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1)  |
| 9084-06-4           | Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt   |
| 9086-40-2           | Formaldehyde, polymer with (1,1,3,3-tetramethylbutyl)phenol  |
| 12624-35-0          | 9,12-Octadecadienoic acid (Z,Z)-, dimer, polymer with 1,2-ethanediamine  |
| 24937-74-4          | Formaldehyde, polymer with benzenamine and phenol  |
| 24937-78-8          | Acetic acid ethenyl ester, polymer with ethene   |
| 24938-91-8          | Poly(oxy-1,2-ethanediyl), $\alpha$ -tridecyl- $\omega$ -hydroxy-   |
| 24969-06-0          | Oxirane, (chloromethyl)-, homopolymer  |
| 24969-10-6          | Oxirane, (chloromethyl)-, polymer with oxirane   |
| 25014-31-7          | Benzene, (1-methylethenyl)-, homopolymer   |
| 25035-68-1          | 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and ethyl 2-propenoate  |
| 25035-69-2          | 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate  |
| 25035-71-6          | Benzenesulfonamide, 4-methyl-, polymer with formaldehyde   |
| 25035-90-9          | 2-Butenedioic acid (Z)-, dibutyl ester, polymer with ethenyl acetate   |
| 25036-13-9          | Urea, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine  |
| 25036-25-3          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]                |
| 25037-45-0          | Carbonic acid, polymer with 4,4'-(1-methylethylidene)bis[phenol]   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 25038-59-9          | Poly(oxy-1,2-ethanedioxyloxycarbonyl-1,4-phenylenecarbonyl)  |
| 25053-96-7          | Formaldehyde, polymer with 2-methylphenol  |
| 25054-06-2          | Formaldehyde, polymer with cyclohexanone   |
| 25067-00-9          | Benzenesulfonamide, 4-methyl-, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine                                     |
| 25067-01-0          | 2-Propenoic acid, butyl ester, polymer with ethenyl acetate  |
| 25068-38-6          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane  |
| 25085-02-3          | 2-Propenoic acid, sodium salt, polymer with 2-propenamide  |
| 25085-17-0          | 1,2-Ethanediamine, <i>N</i> -(2-aminoethyl)-, polymer with (chloromethyl)oxirane   |
| 25085-50-1          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol   |
| 25085-75-0          | Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]  |
| 25085-99-8          | Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer  |
| 25087-34-7          | 1-Butene, polymer with ethene  |
| 25133-97-5          | 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate                                  |
| 25153-36-0          | Formaldehyde, polymer with 2-furanmethanol and phenol  |
| 25155-81-1          | Formaldehyde, polymer with methylbenzene   |
| 25213-24-5          | Acetic acid ethenyl ester, polymer with ethenol  |
| 25322-68-3          | Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy-  |
| 25322-69-4          | Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -hydro- $\omega$ -hydroxy-  |
| 25359-84-6          | Phenol, polymer with 2,6,6-trimethylbicyclo[3.1.1]hept-2-ene   |
| 25568-39-2          | 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenamide  |
| 25608-33-7          | 2-Propenoic acid, 2-methyl-, butyl ester, polymer with methyl 2-methyl-2-propenoate  |
| 25719-60-2          | Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-, homopolymer  |
| 25766-18-1          | Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-, homopolymer  |
| 25791-96-2          | Poly[oxy(methyl-1,2-ethanediyl)], $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -hydroxy-                      |
| 25852-37-3          | 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate   |
| 25951-19-3          | 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with 5-ethenyl-2-methylpyridine and octadecyl 2-methyl-2-propenoate        |
| 25987-30-8          | 2-Propenoic acid, polymer with 2-propenamide, sodium salt  |
| 25987-66-0          | 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate                  |
| 25988-97-0          | Methanamine, <i>N</i> -methyl-, polymer with (chloromethyl)oxirane   |
| 25989-02-0          | Formaldehyde, polymer with 2-furanmethanol   |
| 26006-22-4          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-propenamide          |
| 26022-00-4          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol, 4,4'-(1-methylethylidene)bis[phenol] and 4-methylphenol                |
| 26062-79-3          | 2-Propen-1-aminium, <i>N,N</i> -dimethyl- <i>N</i> -2-propenyl-, chloride, homopolymer   |
| 26139-75-3          | Formaldehyde, polymer with 1,3-dimethylbenzene   |
| 26161-33-1          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer                               |
| 26265-08-7          | Phenol, 4,4'-(1-methylethylidene)bis[2,6-dibromo-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] |
| 26300-51-6          | 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and 2-propenoic acid                                |
| 26335-33-1          | Formaldehyde, polymer with 4-octylphenol   |
| 26338-45-4          | Aziridine, homopolymer, hydrochloride  |
| 26338-61-4          | 2-Furancarboxaldehyde, polymer with phenol   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 26354-11-0          | Formaldehyde, polymer with 2-methylphenol and phenol   |
| 26376-86-3          | 2-Propenoic acid, ethyl ester, polymer with 2-ethylhexyl 2-propenoate  |
| 26590-05-6          | 2-Propen-1-aminium, <i>N,N</i> -dimethyl- <i>N</i> -2-propenyl-, chloride, polymer with 2-propenamamide  |
| 26591-12-8          | Guanidine, cyano-, polymer with formaldehyde   |
| 26617-87-8          | Oxirane, methyl-, polymer with oxirane, compd. with iodine   |
| 26635-92-7          | Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'$ -[(octadecylimino)di-2,1-ethanediyl]bis[ $\omega$ -hydroxy-   |
| 26678-93-3          | Formaldehyde, polymer with 4-(1,1,3,3-tetramethylbutyl)phenol  |
| 26780-96-1          | Quinoline, 1,2-dihydro-2,2,4-trimethyl-, homopolymer   |
| 26811-08-5          | Formaldehyde, polymer with 5,5-dimethyl-2,4-imidazolidinedione   |
| 27029-76-1          | Formaldehyde, polymer with 3-methylphenol and 4-methylphenol   |
| 27083-27-8          | Guanidine, <i>N,N''</i> -1,6-hexanediylbis[ <i>N'</i> -cyano-, polymer with 1,6-hexanediamine, hydrochloride   |
| 27103-90-8          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, homopolymer   |
| 27553-53-3          | Formaldehyde, polymer with 4-(1,1-dimethylpropyl)phenol  |
| 27754-94-5          | 1,2-Ethanediamine, <i>N,N'</i> -bis(2-aminoethyl)-, polymer with (chloromethyl)oxirane   |
| 27967-29-9          | Urea, polymer with ammonia and formaldehyde  |
| 28064-14-4          | Phenol, polymer with formaldehyde, glycidyl ether  |
| 28453-20-5          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and phenol  |
| 28470-78-2          | Formaldehyde, polymer with 3-chloro-1-propene and phenol   |
| 28472-87-9          | Guanidine, cyano-, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine   |
| 28574-50-7          | 1,3-Isobenzofurandione, 4,5,6,7-tetrabromo-, polymer with 2,5-furandione and 1,2-propanediol   |
| 28630-33-3          | Silane, dichlorodimethyl-, polymer with dichlorodiphenylsilane, trichloromethylsilane and trichlorophenylsilane  |
| 28724-32-5          | Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'$ -[(methyloctadecyliminio)di-2,1-ethanediyl]bis[ $\omega$ -hydroxy-, chloride  |
| 29086-67-7          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with oxirane  |
| 29320-38-5          | Ethane, 1,2-dichloro-, polymer with ammonia  |
| 29694-85-7          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with methyloxirane  |
| 30525-89-4          | Paraformaldehyde   |
| 30584-00-0          | Formaldehyde, polymer with <i>N</i> -(3-aminopropyl)-1,3-propanediamine and 1,3,5-triazine-2,4,6-triamine  |
| 30705-14-7          | Benzenesulfonamide, 2-methyl-, polymer with formaldehyde, 4-methylbenzenesulfonamide and 1,3,5-triazine-2,4,6-triamine   |
| 31132-30-6          | 2-Propenoic acid, polymer with <i>N</i> -[(dimethylamino)methyl]-2-propenamamide and 2-propenamamide   |
| 31346-57-3          | 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, dodecyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate |
| 31568-35-1          | Methanamine, polymer with (chloromethyl)oxirane  |
| 31605-35-3          | Formaldehyde, polymer with 4-nonylphenol   |
| 32131-17-2          | Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl]  |
| 32289-58-0          | Poly(iminocarbonimidoyliminocarbonimidoylimino-1,6-hexanediyl), hydrochloride  |
| 32311-19-6          | Urea, polymer with formaldehyde and 1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane  |
| 32555-39-8          | 2-Propen-1-aminium, <i>N,N</i> -dimethyl- <i>N</i> -2-propenyl-, chloride, polymer with ethanedial and 2-propenamamide   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 32610-77-8          | Formaldehyde, polymer with <i>N,N'</i> -bis(2-aminoethyl)-1,2-ethanediamine and phenol   |
| 32759-84-5          | Formaldehyde, polymer with 2,2'-oxybis[ethanol] and 1,3,5-triazine-2,4,6-triamine  |
| 32761-96-9          | Benzenediazonium, 2-methoxy-4-(phenylamino)-, salt with 2,4,6-trimethylbenzenesulfonic acid (1:1) polymer with 1,1'-oxybis[4-(methoxymethyl)benzene]           |
| 32844-27-2          | Carbonic dichloride, polymer with 4,4'-(1-methylethylidene)bis[2,6-dibromophenol] and 4,4'-(1-methylethylidene)bis[phenol]                                     |
| 33434-24-1          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate          |
| 34323-39-2          | Oxirane, (chloromethyl)-, polymer with ammonium hydroxide ((NH <sub>4</sub> )(OH))   |
| 34802-28-3          | Formaldehyde, polymer with benzenamine, methyloxirane, oxirane and phenol  |
| 35297-54-2          | Formaldehyde, polymer with ammonia and phenol  |
| 35429-19-7          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide  |
| 36290-04-7          | 2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt   |
| 36484-54-5          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane and methyloxirane  |
| 36657-47-3          | 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with dodecyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate                         |
| 36833-16-6          | Formaldehyde, polymer with tetrahydroimidazo[4,5- <i>d</i> ]imidazole-2,5(1 <i>H</i> ,3 <i>H</i> )-dione   |
| 37189-83-6          | 9,12-Octadecadienoic acid ( <i>Z,Z</i> )-, dimer, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine  |
| 37203-80-8          | Lignin, sodium salt  |
| 37207-89-9          | Lignosulfonic acid, sodium salt, polymer with formaldehyde and phenol  |
| 37238-34-9          | Formaldehyde, polymer with nonylphenol and phenol  |
| 37280-82-3          | Oxirane, methyl-, polymer with oxirane, phosphate  |
| 37281-91-7          | Lignin, polymer with formaldehyde and phenol   |
| 37337-65-8          | Formaldehyde, polymer with phenol and 1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane  |
| 37604-36-7          | Formaldehyde, polymer with phenol and 4-(1,1,3,3-tetramethylbutyl)phenol   |
| 37625-74-4          | Urea, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine, <i>N,N'</i> -bis(2-aminoethyl)-1,2-ethanediamine and formaldehyde                               |
| 37625-93-7          | 2-Propenoic acid, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol]  |
| 39277-28-6          | Benzenesulfonamide, <i>ar</i> -methyl-, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine  |
| 39382-25-7          | 2-Butenedioic acid ( <i>E</i> )-, polymer with $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)]] |
| 39421-75-5          | Guar gum, 2-hydroxypropyl ether  |
| 40008-96-6          | 2-Propenoic acid, 2-methyl-, 2-[(1,1-dimethylethyl)amino]ethyl ester, polymer with 2-methylpropyl 2-methyl-2-propenoate  |
| 40039-93-8          | Phenol, 4,4'-(1-methylethylidene)bis[2,6-dibromo-, polymer with (chloromethyl)oxirane  |
| 40364-42-9          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane and 4,4'-methylenebis[benzenamine]   |
| 40798-65-0          | Phenol, polymer with formaldehyde, sodium salt   |
| 41222-47-3          | 2-Propenamide, <i>N</i> -[(dimethylamino)methyl]-, polymer with 2-propenamide  |
| 42751-79-1          | 1,2-Ethanediamine, polymer with (chloromethyl)oxirane and <i>N</i> -methylmethanamine  |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 50867-55-5          | 2-Propenoic acid, 2-methyl-, butyl ester, polymer with <i>N</i> -[3-(dimethylamino)propyl]-2-methyl-2-propenamamide, dodecyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate                                     |
| 52108-93-7          | Lignin, ammonium salt  |
| 52285-95-7          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-propenamamide   |
| 52722-38-0          | Methanamine, <i>N</i> -methyl-, polymer with ammonia and (chloromethyl)oxirane   |
| 53124-00-8          | Starch, hydrogen phosphate, 2-hydroxypropyl ether  |
| 53740-05-9          | Dextrin, polymer with formaldehyde   |
| 54579-44-1          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and 4,4'-(1-methylethylidene)bis[phenol]  |
| 55185-45-0          | Formaldehyde, polymer with ammonia, 2-methylphenol and phenol  |
| 55295-98-2          | Guanidine, cyano-, polymer with ammonium chloride ((NH <sub>4</sub> )Cl) and formaldehyde  |
| 55818-57-0          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, 2-propenoate  |
| 55963-33-2          | Starch, hydrogen phosphate   |
| 56372-23-7          | Poly(oxy-1,2-ethanediyl), $\alpha$ -[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy-  |
| 56780-58-6          | Starch, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride   |
| 57866-49-6          | Lignosulfonic acid, zinc salt  |
| 58205-96-2          | Sorbitan, isooctadecanoate, poly(oxy-1,2-ethanediyl) derivs.   |
| 58627-30-8          | 1-Propanaminium, <i>N,N,N</i> -trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with 2-propenamamide   |
| 60303-68-6          | Phenol, 4-(1,1-dimethylethyl)-, polymer with sulfur chloride (S <sub>2</sub> Cl <sub>2</sub> )   |
| 61472-52-4          | Urea, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine and formaldehyde   |
| 61790-82-7          | Amines, hydrogenated tallow alkyl, ethoxylated   |
| 61791-00-2          | Fatty acids, tall-oil, ethoxylated   |
| 61791-24-0          | Amines, soya alkyl, ethoxylated  |
| 61791-26-2          | Amines, tallow alkyl, ethoxylated  |
| 61827-83-6          | Lignosulfonic acid, copper salt  |
| 62073-57-8          | Urea, <i>N,N'</i> -bis(hydroxymethyl)-, polymer with formaldehyde and (hydroxymethyl)urea  |
| 62286-43-5          | 2-Oxepanone, polymer with <i>N</i> -(1,3-dimethylbutylidene)- <i>N'</i> -[2-[(1,3-dimethylbutylidene)amino]ethyl]-1,2-ethanediamine, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2,2'-oxybis[ethanol] |
| 62412-64-0          | 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde, hydrochloride  |
| 63148-62-9          | Siloxanes and Silicones, di-Me   |
| 63393-89-5          | Coumarone-indene resins  |
| 63494-85-9          | Formaldehyde, polymer with 4-methyl-2-nonylphenol and 4-methylphenol   |
| 63512-71-0          | Formaldehyde, polymer with ammonia and chloroethane  |
| 63784-89-4          | Benzenesulfonic acid, 4-amino-, monosodium salt, polymer with formaldehyde and methylphenol  |
| 63951-50-8          | Naphthalenesulfonic acid, sodium salt, polymer with formaldehyde and 4,4'-sulfonylbis[phenol]  |
| 64102-82-5          | Formaldehyde, polymer with dimethylphenol, methylphenol and phenol   |
| 64755-04-0          | Naphthenic acids, reaction products with polyethylenepolyamines  |
| 65071-95-6          | Tall oil, ethoxylated  |
| 65086-64-8          | 2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester, polymer with ethenylbenzene and tridecyl 2-methyl-2-propenoate   |
| 65497-29-2          | Guar gum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride   |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 65733-73-5          | Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol] and 4-(1,1-dimethylpropyl)phenol  |
| 65733-79-1          | Phenol, polymer with 1-methyl-4-(1-methylethenyl)cyclohexene and 2,6,6-trimethylbicyclo[3.1.1]hept-2-ene  |
| 65733-82-6          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol, 4,4'-(1-methylethylidene)bis[phenol] and 4-(1,1,3,3-tetramethylbutyl)phenol   |
| 65876-95-1          | Formaldehyde, polymer with 1,3-benzenediol, [1,1'-biphenyl]- <i>ar,ar'</i> -diol and [1,1'-biphenyl]triol   |
| 65996-62-5          | Starch, oxidized  |
| 65997-07-1          | Rosin, polymer with formaldehyde  |
| 65997-11-7          | Rosin, fumarated, polymer with pentaerythritol  |
| 66037-36-3          | 1,3-Propanediamine, <i>N,N</i> -dimethyl-, polymer with (chloromethyl)oxirane, sulfate  |
| 66070-62-0          | Fatty acids, tall-oil, polymers with glycerol, pentaerythritol and phthalic anhydride   |
| 66455-14-9          | Alcohols, C <sub>12-13</sub> , ethoxylated  |
| 67700-42-9          | Cashew, nutshell liq., polymer with formaldehyde and phenol   |
| 67761-98-2          | Fatty acids, tall-oil, polymers with ethylene glycol, pentaerythritol and phthalic anhydride  |
| 67762-15-6          | Soybean oil, polymer with maleic anhydride, pentaerythritol and phthalic anhydride  |
| 67762-19-0          | Poly(oxy-1,2-ethanediyl), $\alpha$ -sulfo- $\omega$ -hydroxy-, C <sub>10-16</sub> -alkyl ethers, ammonium salts   |
| 67762-90-7          | Siloxanes and Silicones, di-Me, reaction products with silica   |
| 67762-94-1          | Siloxanes and Silicones, di-Me, Me vinyl  |
| 67762-97-4          | Siloxanes and Silicones, ethoxy Me  |
| 67763-03-5          | Silsesquioxanes, Me Ph  |
| 67784-86-5          | Fatty acids, tall-oil, ethoxylated propoxylated   |
| 67784-93-4          | Formaldehyde, polymer with 2-methylphenol and phenol, sulfonated, sodium salt   |
| 67784-97-8          | Naphthalenesulfonic acids, polymers with formaldehyde and sulfonated phenol, sodium salts   |
| 67785-03-9          | Tall oil, polymer with formaldehyde and phenol  |
| 67786-28-1          | 2-Naphthalenesulfonic acid, 6-hydroxy-, polymer with formaldehyde, 3-methylphenol and 4-methylphenol, sodium salt   |
| 67816-01-7          | Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,4-cyclohexanedimethanol, 1,3-diisocyanatomethylbenzene, hydrazine and $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,4-butanediyl)              |
| 67846-33-7          | 2-Propenoic acid, 2-methyl-, polymer with <i>N,N</i> -bis(2-aminoethyl)-1,2-ethanediamine, (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol] and ( <i>Z</i> )- <i>N</i> -9-octadecenyl-1,3-propanediamine |
| 67846-45-1          | 1,3-Propanediamine, <i>N</i> -9-octadecenyl-, ( <i>Z</i> )-, polymer with (chloromethyl)oxirane and $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)  |
| 67905-95-7          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and 4-nonylphenol  |
| 67924-33-8          | Ethanol, 2,2',2''-nitrolotris-, homopolymer, hydrochloride  |
| 67924-34-9          | Phenol, 4-(1,1-dimethylethyl)-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol]   |
| 67953-56-4          | 1,6-Hexanediamine, <i>N</i> -(6-aminoethyl)-, polymer with (chloromethyl)oxirane  |
| 67953-62-2          | 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-ethylhexyl 2-propenoate, ethyl 2-propenoate and 2-propenamide   |
| 67953-80-4          | 2-Propenamide, polymer with formaldehyde and <i>N</i> -methylmethanamine  |
| 67953-82-6          | Phenol, 4-dodecyl-, polymer with 1,2-ethanediamine and formaldehyde, compd. with (dibutylamino)methanol   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 67970-32-5          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and methylphenol  |
| 68002-19-7          | Urea, polymer with formaldehyde, butylated   |
| 68002-20-0          | 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde, methylated   |
| 68002-25-5          | 1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde, butylated  |
| 68002-26-6          | Formaldehyde, polymer with 6-phenyl-1,3,5-triazine-2,4-diamine, butylated  |
| 68002-42-6          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, reaction products with 2-methyl-1 <i>H</i> -imidazole   |
| 68002-96-0          | Alcohols, C <sub>16-18</sub> , ethoxylated propoxylated  |
| 68002-97-1          | Alcohols, C <sub>10-16</sub> , ethoxylated   |
| 68003-04-3          | Ethanol, 2-amino-, compd. with $\alpha$ -(2-cyanoethyl)- $\omega$ -(4-nonylsulfophenoxy)poly(oxy-1,2-ethanediyl) (1:1)   |
| 68003-26-9          | Formaldehyde, polymer with ammonia and 2-methylphenol  |
| 68015-68-9          | Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy-, ether with 1-[[2-[[2-[bis(2-hydroxyethyl)amino]ethyl](2-hydroxyethyl)amino]ethyl](2-hydroxyethyl)amino]-3-(9-octadecenyloxy)-2-propanol (4:1), (Z)- |
| 68036-98-6          | Imidazo[4,5- <i>d</i> ]imidazole-2,5(1 <i>H</i> ,3 <i>H</i> )-dione, tetrahydro-, polymer with formaldehyde, butylated   |
| 68036-99-7          | Oxirane, (chloromethyl)-, polymer with ammonia, reaction products with chloromethane   |
| 68037-01-4          | 1-Decene, homopolymer, hydrogenated  |
| 68037-08-1          | Formaldehyde, polymer with 6-phenyl-1,3,5-triazine-2,4-diamine, ethylated methylated   |
| 68037-42-3          | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol, magnesium oxide complex  |
| 68037-64-9          | Siloxanes and Silicones, di-Me, Me hydrogen, reaction products with polyethylene-polypropylene glycol monoacetate allyl ether  |
| 68037-87-6          | Siloxanes and Silicones, Me vinyl  |
| 68038-22-2          | Fatty acids, tall-oil, polymers with bisphenol A, epichlorohydrin and rosin  |
| 68038-41-5          | Rosin, maleated, polymer with glycerol   |
| 68039-13-4          | 1-Propanaminium, <i>N,N,N</i> -trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, homopolymer  |
| 68071-95-4          | Quaternary ammonium compounds, ethylbis(hydroxyethyl)tallow alkyl, ethoxylated, Et sulfates (salts)  |
| 68072-39-9          | Formaldehyde, polymer with <i>N,N'</i> -bis(2-aminoethyl)-1,2-ethanediamine, (chloromethyl)oxirane and phenol  |
| 68072-45-7          | 1,4-Pentadien-3-one, 1,5-bis[4-(oxiranylmethoxy)phenyl]-, polymer with 4,4'-(1-methylethylidene)bis[2,6-dibromophenol] and 4,4'-(1-methylethylidene)bis[phenol]  |
| 68082-23-5          | Cyclosiloxanes, Me vinyl   |
| 68082-91-7          | Rosin, fumarated, polymer with formaldehyde, potassium sodium salt   |
| 68082-95-1          | Rosin, maleated, polymer with bisphenol A, formaldehyde, glycerol and pentaerythritol  |
| 68083-18-1          | Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated   |
| 68083-19-2          | Siloxanes and Silicones, di-Me, vinyl group-terminated   |
| 68083-27-2          | Soybean oil, polymer with ethylenediamine, linoleic acid dimer, pentaerythritol, phthalic anhydride and tall oil   |
| 68123-18-2          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, methyloxirane and oxirane   |
| 68123-23-9          | Nonanedioic acid, polymer with 1,2-ethanediamine, 1,6-hexanediamine and (Z,Z)-9,12-octadecadienoic acid dimer  |
| 68130-63-2          | 2-Propenamide, homopolymer, reaction products with dimethylamine and formaldehyde  |
| 68130-98-3          | Aziridine, homopolymer, ethoxylated, phosphonomethylated   |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 68130-99-4          | Aziridine, homopolymer, ethoxylated   |
| 68131-39-5          | Alcohols, C <sub>12-15</sub> , ethoxylated  |
| 68134-00-9          | Decanedioic acid, polymer with 1,2-ethanediamine, 1,6-hexanediamine and (Z,Z)-9,12-octadecadienoic acid dimer   |
| 68134-56-5          | 2-Oxepanone, polymer with (chloromethyl)oxirane, N-(1,3-dimethylbutylidene)-N'-[2-[(1,3-dimethylbutylidene)amino]ethyl]-1,2-ethanediamine, 2-(methylamino)ethanol, 4,4'-(1-methylethylidene)bis[phenol] and 2,2'-oxybis[ethanol], acetate (salt)  |
| 68140-39-6          | Formaldehyde, polymer with (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol], methyloxirane, methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1), nonylphenol and oxirane  |
| 68152-47-6          | Rosin, fumarated, polymer with bisphenol A, formaldehyde and pentaerythritol  |
| 68152-60-3          | Rosin, maleated, polymer with bisphenol A, formaldehyde and glycerol  |
| 68152-61-4          | Rosin, maleated, polymer with bisphenol A, formaldehyde and pentaerythritol   |
| 68152-67-0          | Rosin, maleated, polymer with tripentaerythritol  |
| 68152-68-1          | Rosin, polymer with bisphenol A and formaldehyde  |
| 68152-81-8          | Soybean oil, polymd., oxidized  |
| 68154-31-4          | Fatty acids, C <sub>14-18</sub> , ethoxylated propoxylated  |
| 68154-98-3          | Alcohols, C <sub>14-18</sub> , ethoxylated propoxylated   |
| 68155-33-9          | Amines, C <sub>14-18</sub> -alkyl, ethoxylated  |
| 68155-40-8          | Amines, C <sub>16-18</sub> and C <sub>18</sub> -unsatd. alkyl, ethoxylated  |
| 68155-82-8          | Ethane, 1,2-dichloro-, polymer with ammonia, monohydrochloride  |
| 68188-28-3          | Tall-oil rosin, maleated, polymer with pentaerythritol  |
| 68188-63-6          | Rosin, maleated, polymer with bisphenol A and formaldehyde  |
| 68188-92-1          | Amines, tallow alkyl, propoxylated  |
| 68201-58-1          | Rosin, fumarated, polymer with formaldehyde   |
| 68201-88-7          | 1,6-Hexanediamine, polymer with (chloromethyl)oxirane, methyloxirane and oxirane, hydrochloride   |
| 68213-23-0          | Alcohols, C <sub>12-18</sub> , ethoxylated  |
| 68213-26-3          | Amines, tallow alkyl, ethoxylated propoxylated  |
| 68213-35-4          | Fatty acids, C <sub>18</sub> -unsatd., dimers, polymers with ethylenediamine, 4-hydroxy-γ-(4-hydroxyphenyl)-γ-methylbenzenebutanoic acid and oleic acid   |
| 68240-01-7          | 4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-, polymer with ethenylbenzene, ethenylmethylbenzene, 1H-indene and (1-methylethenyl)benzene   |
| 68240-07-3          | Phenol, polymer with 6,6-dimethyl-2-methylenebicyclo[3.1.1]heptane and 2,6,6-trimethylbicyclo[3.1.1]hept-2-ene  |
| 68240-08-4          | Phenol, polymer with 3-methylene-6-(1-methylethyl)cyclohexene, 1-methyl-4-(1-methylethenyl)cyclohexene, 1-methyl-4-(1-methylethyl)-1,3-cyclohexadiene, 1-methyl-4-(1-methylethyl)-1,4-cyclohexadiene, 2-methyl-5-(1-methylethyl)-1,3-cyclohexadiene, 1-methyl-4-(1-methylethylidene)cyclohexene and 2,6,6-trimethylbicyclo[3.1.1]hept-2-ene |
| 68258-80-0          | 2-Propenoic acid, 2-methyl-, 2-(1-aziridinyl)ethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate  |
| 68298-80-6          | Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]-ω-hydroxy-  |
| 68298-81-7          | Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-hydroxy-   |
| 68310-21-4          | Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, ether with α-[(2-hydroxyethyl)[2-[[2-[(2-hydroxyethyl)octadecylamino]ethyl](2-hydroxy-2-phenylethyl)amino]ethyl]amino]methyl]benzenemethanol (2:1)  |
| 68318-41-2          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N-(2-aminoethyl)-1,2-ethanediamine, (butoxymethyl)oxirane and (chloromethyl)oxirane   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 68324-30-1          | Propanoic acid, 2-hydroxy-, polymer with (chloromethyl)oxirane, 2-ethylhexyl [3-[[[2-(dimethylamino)ethoxy]carbonyl]amino]-4-methylphenyl]carbamate, 2-ethylhexyl (3-isocyanatomethylphenyl)carbamate and 4,4'-(1-methylethylidene)bis[phenol] |
| 68332-89-8          | Aziridine, homopolymer, propoxylated, benzyl chloride-quaternized  |
| 68333-40-4          | Tung oil, polymer with boron trifluoride-phenol complex, formaldehyde, phenol, $\beta$ -pinene and turpentine oil  |
| 68333-69-7          | Rosin, maleated, polymer with pentaerythritol  |
| 68333-79-9          | Polyphosphoric acids, ammonium salts   |
| 68333-98-2          | Coconut oil, ester with polyethylene glycol mono(nonylphenyl) ether  |
| 68379-09-9          | Benzenesulfonamide, <i>ar</i> -methyl-, polymer with formaldehyde and tetrahydroimidazo[4,5- <i>d</i> ]imidazole-2,5(1 <i>H</i> ,3 <i>H</i> )-dione  |
| 68390-20-5          | Fatty acids, sunflower-oil, polymers with adipic acid, caprolactam, diethylenetriamine and triethylenetetramine  |
| 68400-14-6          | Guanidine, cyano-, polymer with 1,2-ethanediamine sulfate (1:1) and formaldehyde   |
| 68410-22-0          | Fatty acids, C <sub>18</sub> -unsatd., dimers, reaction products with diethylenetriamine   |
| 68410-23-1          | Fatty acids, C <sub>18</sub> -unsatd., dimers, reaction products with polyethylenepolyamines   |
| 68410-45-7          | Gelatins, hydrolyzates   |
| 68410-99-1          | Alkenes, polymd., chlorinated  |
| 68412-14-6          | Octadecanoic acid, reaction products with 2-[(2-aminoethyl)amino]ethanol and urea  |
| 68413-28-5          | Cashew, nutshell liq., polymer with ethylenediamine and formaldehyde   |
| 68413-29-6          | Cashew, nutshell liq., polymer with diethylenetriamine and formaldehyde  |
| 68439-45-2          | Alcohols, C <sub>6-12</sub> , ethoxylated  |
| 68439-46-3          | Alcohols, C <sub>9-11</sub> , ethoxylated  |
| 68439-50-9          | Alcohols, C <sub>12-14</sub> , ethoxylated   |
| 68439-51-0          | Alcohols, C <sub>12-14</sub> , ethoxylated propoxylated  |
| 68439-72-5          | Amines, C <sub>8-18</sub> and C <sub>18</sub> -unsatd. alkyl, ethoxylated  |
| 68439-80-5          | Amines, polyethylenepoly-, reaction products with succinic anhydride polybutenyl derivs.   |
| 68440-73-3          | Siloxanes and Silicones, di-Me, Me Ph, hydroxy-terminated  |
| 68441-17-8          | Ethene, homopolymer, oxidized  |
| 68441-65-6          | 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-, adduct with 1,3-butadiene homopolymer  |
| 68441-69-0          | 1,2-Ethanediamine, polymer with 1,3-diisocyanatomethylbenzene, reaction products with oleylamine   |
| 68459-31-4          | Fatty acids, C <sub>9-11</sub> -branched, glycidyl esters, polymers with castor oil, formaldehyde, 6-phenyl-1,3,5-triazine-2,4-diamine and phthalic anhydride  |
| 68479-80-1          | Phenol, polymer with 1,2-cyclohexanediamine, formaldehyde and 1,6-hexanediamine  |
| 68511-76-2          | 2,5-Furandione, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine, butylated isopropylated, reaction products with triethylamine   |
| 68512-03-8          | Methanamine, <i>N,N</i> -dimethyl-, reaction products with (chloromethyl)ethenylbenzene-divinylbenzene polymer and sodium hydroxide  |
| 68512-26-5          | Starch, 2-hydroxyethyl ether, base-hydrolyzed  |
| 68512-34-5          | Lignosulfonic acid, sodium salt, sulfomethylated   |
| 68513-37-1          | Fatty acids, tall-oil, polymers with diethylenetriamine and linoleic acid dimers   |
| 68513-38-2          | Fatty acids, tall-oil, polymers with diethylenetriamine, linoleic acid dimers and triethylenetetramine   |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 68516-42-7          | 2-Propenoic acid, 2-methyl-, 2-[(1,1-dimethylethyl)amino]ethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate  |
| 68516-43-8          | 2-Propenoic acid, 2-methyl-, polymer with 2-methylaziridine, methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate  |
| 68516-87-0          | Benzenesulfonic acid, 2,4-dimethyl-, polymer with formaldehyde and 4,4'-sulfonylbis[phenol], ammonium sodium salt   |
| 68527-87-7          | Formaldehyde, polymer with 2-ethoxyethanol and phenol   |
| 68540-48-7          | 9,12-Octadecadienoic acid (Z,Z)-, dimer, compd. with <i>N,N'</i> -bis(2-aminoethyl)-1,2-ethanediamine   |
| 68540-71-6          | Benzoic acid, 2-hydroxy-, polymer with formaldehyde, 2-methylphenol and nonylphenol   |
| 68541-13-9          | 9,12-Octadecadienoic acid (Z,Z)-, dimer, polymer with 3,3'-[oxybis(2,1-ethanedioxy)]bis[1-propanamine]  |
| 68541-21-9          | 9,12-Octadecadienoic acid (Z,Z)-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol]   |
| 68541-77-5          | Decanedioic acid, polymer with 2-aminoethanol, 1,2-ethanediamine and (Z,Z)-9,12-octadecadienoic acid dimer  |
| 68551-13-3          | Alcohols, C <sub>12-15</sub> , ethoxylated propoxylated   |
| 68552-99-8          | Fatty acids, vegetable-oil, polymers with phthalic anhydride and rosin  |
| 68553-78-6          | Oils, oiticica, polymers with boron trifluoride-phenol complex, formaldehyde, phenol, $\beta$ -pinene and turpentine oil  |
| 68554-18-7          | Rosin, fumarated, polymer with glycerol, ammonium salt  |
| 68555-98-6          | Phenol, 4-(1,1-dimethylpropyl)-, polymer with sulfur chloride (S <sub>2</sub> Cl <sub>2</sub> )   |
| 68584-77-0          | 1,3-Propanediamine, <i>N</i> -(3-aminopropyl)-, polymer with (chloromethyl)oxirane and $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanedioyl), reaction products with laurylamine  |
| 68585-07-9          | Octadecanoic acid, 12-hydroxy-, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 2-methyl-2-propenoic acid and oxiranylmethyl 2-methyl-2-propenoate, 1-aziridineethanol-terminated |
| 68585-34-2          | Poly(oxy-1,2-ethanedioyl), $\alpha$ -sulfo- $\omega$ -hydroxy-, C <sub>10-16</sub> -alkyl ethers, sodium salts  |
| 68603-75-8          | Amines, <i>N</i> -tallow alkyltrimethylenedi-, propoxylated   |
| 68604-06-8          | Castor oil, hydrogenated, polymer with ethylenediamine, 12-hydroxyoctadecanoic acid and sebacic acid  |
| 68605-92-5          | Fatty acids, tall-oil, reaction products with polyethylenepolyamines, compds. with polyethylene glycol decyl ether phosphate  |
| 68606-78-0          | Naphthenic acids, esters with polytriethanolamine   |
| 68609-18-7          | Ethanol, 2,2',2''-nitrilotris-, homopolymer, reaction products with chloromethane   |
| 68609-24-5          | Formaldehyde, polymer with benzenamine, propoxylated  |
| 68610-07-1          | Formaldehyde, polymers with isobutylated phenol   |
| 68610-41-3          | 2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorohydrin   |
| 68610-55-9          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane and phenyloxirane, reaction products with 4,4'-methylenebis[benzenamine]  |
| 68610-75-3          | 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-mercaptoethanol, reaction products with ammonia and <i>N,N'</i> ,2-tris(6-isocyanatohexyl)imidodicarbonic diamide   |
| 68631-00-5          | Formaldehyde, polymer with 1,2-ethanediamine and nonylphenol  |
| 68648-57-7          | Rosin, polymer with phenol and tall-oil rosin   |
| 68650-48-6          | Fatty acids, C <sub>18</sub> -unsatd., dimers, polymers with C <sub>18</sub> -unsatd. alkyl amine dimers and ethylenediamine  |
| 68834-14-0          | Pyridinium, 2-ethenyl-1-methyl-, methyl sulfate, polymer with ethenylbenzene  |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 68890-97-1          | Aziridine, homopolymer, compd. with (chloromethyl)benzene   |
| 68891-01-0          | Benzenesulfonamide, <i>ar</i> -methyl-, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine, butylated  |
| 68910-26-9          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, reaction products with diethylenetriamine and 4-methyl-2-pentanone   |
| 68910-64-5          | Rosin, polymer with <i>o</i> -cresol, formaldehyde and tetra-Bu titanate  |
| 68910-67-8          | Rosin, fumarated maleated, polymer with formaldehyde, potassium sodium salt   |
| 68915-81-1          | Linseed oil, polymer with bisphenol A, bisphenol A diglycidyl ether, diethylenetriamine, formaldehyde, glycidyl Ph ether and pentaethylenehexamine  |
| 68920-24-1          | Fatty acids, dehydrated castor-oil, polymers with bisphenol A, epichlorohydrin, fumaric acid and rosin  |
| 68920-41-2          | Fatty acids, tall-oil, reaction products with polyethylenepolyamines, compds. with polyethylene glycol monoethyl ether phosphate  |
| 68937-31-5          | 4,6,10-Dodecatrien-3-one, 7,11-dimethyl-, cyclized, by-products from, fractionation residues  |
| 68938-70-5          | Ethanol, 2,2',2''-nitrotris-, homopolymer, compd. with chloromethane  |
| 68951-67-7          | Alcohols, C <sub>14-15</sub> , ethoxylated  |
| 68951-85-9          | Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine  |
| 68951-93-9          | Siloxanes and Silicones, di-Me, di-Ph, hydroxy-terminated   |
| 68951-99-5          | Siloxanes and Silicones, di-Me, Me vinyl, mono(vinyl group)-terminated  |
| 68952-00-1          | Siloxanes and Silicones, di-Me, mono(vinyl group)-terminated  |
| 68953-74-2          | Aziridine, homopolymer, ethoxylated, phosphonomethylated, sodium salt   |
| 68956-65-0          | Naphthenic acids, polymers with ethylenimine, compds. with linoleic acid dimer  |
| 68956-74-1          | Polyphenyls, quater- and higher, partially hydrogenated   |
| 68957-91-5          | 2-Propenoic acid, 2-methyl-, polymer with (chloromethyl)oxirane, ethenylbenzene, ethyl 2-propenoate and 4,4'-(1-methylethylidene)bis[phenol], compd. with 2-(dimethylamino)ethanol  |
| 68958-60-1          | Poly(oxy-1,2-ethanediyl), $\alpha$ -[2-ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]- $\omega$ -methoxy-   |
| 68988-41-0          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, reaction products with diethanolamine and polyethylene glycol monooleate   |
| 68988-81-8          | Hexanedioic acid, polymer with bis(2-chloroethyl) (1-hydroxyethyl)phosphonate, 2-chloroethyl hydrogen (2-chloroethyl)phosphonate, 2-chloroethyl hydrogen (1-hydroxyethyl)phosphonate, ( <i>E</i> )-2,3-dibromo-2-butene-1,4-diol, 1,3-diisocyanatomethylbenzene and 2,2'-oxybis[ethanol], reaction products with diethanolamine, hydrochlorides |
| 68988-82-9          | Hexanedioic acid, polymer with bis(2-chloroethyl) (1-hydroxyethyl)phosphonate, 2-chloroethyl hydrogen (2-chloroethyl)phosphonate, 2-chloroethyl hydrogen (1-hydroxyethyl)phosphonate, ( <i>E</i> )-2,3-dibromo-2-butene-1,4-diol, 1,3-diisocyanatomethylbenzene and 1,2-propanediol, reaction products with diethanolamine, hydrochlorides      |
| 68989-80-0          | Fatty acids, linseed-oil, polymers with glycerol, maleic anhydride, phthalic anhydride, rosin and tung oil  |
| 69011-21-8          | Benzene, diethenyl-, polymer with ethenylbenzene and ethenylethylbenzene, sulfonated, ammonium salts  |
| 69178-40-1          | Formaldehyde, polymer with benzenamine and 2-ethylbenzenamine   |
| 69227-21-0          | Alcohols, C <sub>12-18</sub> , ethoxylated propoxylated   |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 69418-26-4          | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide  |
| 69430-24-6          | Cyclosiloxanes, di-Me   |
| 69898-35-7          | Urea, polymer with formaldehyde and 1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane, butylated  |
| 69898-36-8          | Urea, polymer with formaldehyde and 1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane, butylated ethylated  |
| 69929-35-7          | Decanedioic acid, polymer with 1,2-ethanediamine, ( <i>Z,Z</i> )-9,12-octadecadienoic acid dimer and 4,4'-(1,3-propanediyl)bis[piperidine]  |
| 69929-44-8          | 9,12-Octadecadienoic acid ( <i>Z,Z</i> )-, dimer, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and 1,2-ethanediamine, acetate   |
| 70131-67-8          | Siloxanes and Silicones, di-Me, hydroxy-terminated  |
| 70528-79-9          | Sulfite liquors and Cooking liquors, spent, polymer with formaldehyde   |
| 70693-20-8          | Cyanamide, reaction products with carbon dioxide, ethylene oxide and 1-octadecanamine   |
| 70750-07-1          | Formaldehyde, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine, benzylated   |
| 70750-20-8          | 2-Propenamide, homopolymer, reaction products with chloromethane, dimethylamine and formaldehyde  |
| 70851-21-7          | Siloxanes and Silicones, di-Me, (C <sub>3-33</sub> -alkyloxy)-terminated  |
| 70892-21-6          | Acetic acid ethenyl ester, polymer with ethenol, reaction products with 1-isocyanatohexadecane and 1-isocyanatooctadecane   |
| 70914-12-4          | Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene glycol acetate   |
| 71042-85-8          | 2-Propenoic acid, 2-methyl-, telomer with 2-[(1,1-dimethylethyl)amino]ethyl 2-methyl-2-propenoate, 1-dodecanethiol, methyl 2-methyl-2-propenoate and <i>exo</i> -1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate |
| 71077-22-0          | Benzoic acid, 2-hydroxy-, polymer with formaldehyde, 4-nonylphenol and zinc oxide (ZnO)   |
| 71412-29-8          | 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, telomer with <i>tert</i> -dodecanethiol, ethenylbenzene, isodecyl 2-methyl-2-propenoate and 2-propenoic acid, compd. with 2-(dimethylamino)ethanol                         |
| 71832-81-0          | Benzenesulfonic acid, hydroxy-, monosodium salt, polymer with formaldehyde and 4,4'-sulfonylbis[phenol]   |
| 72121-75-6          | Formaldehyde, polymer with 2,2'-iminobis[ethanol], 4,4'-(1-methylethylidene)bis[phenol], nonylphenol and 1,3,5-triazine-2,4,6-triamine  |
| 72207-55-7          | Benzenamine, ethylenated, distn. residues   |
| 72361-56-9          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine, (butoxymethyl)oxirane and (chloromethyl)oxirane  |
| 72496-95-8          | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, <i>N,N</i> -dimethyl-1,3-propanediamine and tetradecyloxirane  |
| 72828-15-0          | Benzene, diethenyl-, polymer with ethenylbenzene, sulfonated, ammonium salts  |
| 72845-42-2          | Ethanol, 2-amino-, compd. with $\alpha$ -(2-cyanoethyl)- $\omega$ -(nonylsulfophenoxy)poly(oxy-1,2-ethanediyl) (1:1)  |
| 72968-37-7          | Amines, C <sub>12-18</sub> -alkyl, ethoxylated  |
| 73049-34-0          | Alcohols, C <sub>16-20</sub> , ethoxylated propoxylated   |
| 73297-33-3          | Poly(oxy-1,2-ethanediyl), $\alpha$ -[tris[1-(methylphenyl)ethyl]phenyl]- $\omega$ -hydroxy-   |
| 74499-34-6          | Alcohols, C <sub>12-15</sub> , propoxylated   |
| 75150-29-7          | 1-Propanaminium, <i>N,N,N</i> -trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride, polymer with 2-propenamide   |
| 75790-74-8          | 1,2,3-Propanetriol, polymer with 1,3-diisocyanatomethylbenzene, hydrazine, methyloxirane and oxirane  |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 76649-36-0          | Formic acid, compd. with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine polymer with formaldehyde and urea  |
| 76649-37-1          | Hexanedioic acid, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine, ammonia, (chloromethyl)oxirane, formaldehyde and formic acid, formate hydrochloride sulfate  |
| 76649-45-1          | Hexanedioic acid, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine, (chloromethyl)oxirane, formaldehyde and formic acid  |
| 76649-46-2          | Hexanedioic acid, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine, (chloromethyl)oxirane, formaldehyde and formic acid, formate hydrochloride sulfate   |
| 76822-95-2          | Imides, cyclic, from C <sub>15-20</sub> $\alpha$ -alkene-maleic anhydride copolymer and (Z)- <i>N</i> -9-octadecenyl-1,3-propanediamine   |
| 77358-01-1          | 2-Propenoic acid, 2-methyl-, butyl ester, polymer with methyl 2-methyl-2-propenoate and <i>N,N'</i> -2-tris(6-isocyanatoethyl)imidodicarbonic diamide   |
| 79770-99-3          | Fatty acids, C <sub>18</sub> -unsatd., dimers, distn. lights, reaction products with $\alpha,\alpha'$ -(1-methyl-1,3-propanediyl)bis[ $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)]  |
| 80044-11-7          | Oxirane, (chloromethyl)-, polymer with ammonia, hydrochloride   |
| 82066-30-6          | 2-Propen-1-aminium, <i>N,N</i> -dimethyl- <i>N</i> -2-propenyl-, chloride, polymer with 2-propenamamide and 2-propenoic acid, sodium salt   |
| 82451-48-7          | 1,6-Hexanediamine, <i>N,N'</i> -bis(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with 2,4-dichloro-6-(4-morpholinyl)-1,3,5-triazine   |
| 82640-14-0          | Naphthalenesulfonic acids, polymers with formaldehyde, sulfonated 1,1'-oxybis[methylbenzene] and sulfonylbis[phenol], ammonium sodium salts   |
| 84605-20-9          | Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs.   |
| 85434-86-2          | 2-Propenamamide, polymer with (chloromethyl)oxirane, methanamine and <i>N,N,N',N'</i> -tetramethyl-1,2-ethanediamine  |
| 86706-87-8          | 1,3-Propanediaminium, 2-hydroxy- <i>N,N,N,N'</i> -pentamethyl- <i>N'</i> -[3-[(2-methyl-1-oxo-2-propenyl)amino]propyl]-, dichloride, homopolymer  |
| 89394-61-6          | Formaldehyde, polymer with <i>N</i> -(2-aminoethyl)- <i>N'</i> -[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine and benzenamine  |
| 94334-64-2          | Carbonic dichloride, polymer with 4,4'-(1-methylethylidene)bis[2,6-dibromophenol] and phenol  |
| 95012-79-6          | Tetraglycerol, monododecyl ether  |
| 95649-04-0          | Naphthalenesulfonic acids, polymers with formaldehyde, sulfonated 1,1'-biphenyl and sulfonylbis[phenol], ammonium sodium salts  |
| 95649-08-4          | Formaldehyde, polymers with sulfonated terphenyl and sulfonylbis[phenol], ammonium sodium salts   |
| 96591-17-2          | Fatty acids, linseed-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde, polymers with Bu methacrylate, 2-(diethylamino)ethyl methacrylate, 2-hydroxyethyl acrylate and Me methacrylate |
| 96591-18-3          | Fatty acids, tall-oil, reaction products with 2-amino-2-(hydroxymethyl)-1,3-propanediol and formaldehyde, polymers with acrylonitrile, Et acrylate and Me methacrylate  |
| 96591-23-0          | Formaldehyde, polymers with sulfonated 1,1'-biphenyl, sulfonated terphenyl and sulfonylbis[phenol], ammonium sodium salts   |
| 97969-64-7          | Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1-aziridineethanol, formaldehyde, 1,6-hexanediol and 1,3,5-triazine-2,4,6-triamine  |
| 98654-27-4          | Fatty acids, dehydrated castor-oil, polymers with dehydrated castor oil, 2-(dimethylamino)ethanol, isononanoic acid, isophthalic acid, linseed oil, maleic anhydride and pentaerythritol                                    |
| 99734-09-5          | Poly(oxy-1,2-ethanediyl), $\alpha$ -[tris(1-phenylethyl)phenyl]- $\omega$ -hydroxy-   |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 100588-10-1         | 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane] and sodium 2-propenoate   |
| 101060-97-3         | Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide and <i>N,N,N</i> -trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride  |
| 102082-95-1         | 2-Propenoic acid, ammonium salt, polymer with 2-propenamide and 2-propenenitrile  |
| 102561-59-1         | Hexanedioic acid, polymer with <i>N</i> -(2-aminoethyl)-1,3-propanediamine and <i>N,N'</i> -1,2-ethanediylbis[1,3-propanediamine]   |
| 102984-13-4         | 2-Propenoic acid, sodium salt, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane]  |
| 103458-43-1         | 2-Propenoic acid, polymer with 2-(diethylamino)ethyl 2-propenoate and 2-propenamide, sulfate  |
| 103598-77-2         | Carbonic dichloride, polymer with 4,4'-(1-methylethylidene)bis[phenol], 4-(1,1-dimethylethyl)phenyl ester   |
| 104376-66-1         | Formaldehyde, polymers with branched nonylphenol, ethylene oxide and hexamethylenediamine   |
| 105839-18-7         | Fatty acids, C <sub>16</sub> and C <sub>18</sub> -unsatd., polymers with bisphenol A, Bu glycidyl ether, epichlorohydrin and triethylenetetramine   |
| 106214-62-4         | Fatty acids, soya, polymers with adipic acid, 1,6-hexanediol, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, isophthalic acid and trimethylolpropane, compds. with triethylamine   |
| 106214-63-5         | Fatty acids, soya, polymers with benzoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, isophthalic acid, pentaerythritol and phthalic anhydride, compds. with triethylamine |
| 108563-09-3         | Amines, tallow alkyl, ethoxylated, 4-dodecylbenzenesulfonates (salts)   |
| 110392-46-6         | Formaldehyde, reaction products with 1,4-benzenediol and <i>m</i> -phenylenediamine, sulfurized   |
| 110720-55-3         | Oxirane, methyl-, polymer with oxirane, ether with [[3-[(2-hydroxymethylethyl)amino]propyl]imino]bis[propanol] (3:1), <i>N</i> -tallow alkyl derivs., sulfates (esters), ammonium salts   |
| 111850-23-8         | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, reaction products with 2,2,4( <i>or</i> 2,4,4)-trimethyl-1,6-hexanediamine   |
| 111905-53-4         | Alcohols, C <sub>13-15</sub> -branched and linear, butoxylated ethoxylated  |
| 111905-54-5         | Alcohols, C <sub>13-15</sub> -branched and linear, ethoxylated propoxylated   |
| 112484-41-0         | Formaldehyde, polymer with 4-(1,1,3,3-tetramethylbutyl)phenol, hydrobromic acid-terminated  |
| 113894-91-0         | Amylopectin, acetate phosphate  |
| 115559-71-2         | Sulfurous acid, monosodium salt, reaction products with <i>m</i> -cresol-formaldehyde-nonylphenol polymer   |
| 115559-72-3         | Sulfurous acid, monosodium salt, reaction products with <i>m</i> -cresol-formaldehyde polymer   |
| 116265-69-1         | Formaldehyde, reaction products with hexamethylenediamine and oxidized ethylene-propene polymer   |
| 117985-54-3         | Benzenesulfonic acid, hydroxy-, monosodium salt, polymer with benzenamine, formaldehyde, 1,3,5-triazine-2,4,6-triamine and urea, bisulfited   |
| 118460-96-1         | Formaldehyde, polymer with methylphenol, nonylphenol and phenol, bisulfited   |
| 118685-17-9         | Benzenesulfonic acid, 4-amino-, polymer with formaldehyde, 2-methylphenol and phenol, bisulfited  |
| 119147-80-7         | Octadecanoic acid, 12-hydroxy-, homopolymer, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with methyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate, 2-methyl-2-propenoate 4-nitrobenzoate                      |

| CAS RN <sup>1</sup> | Substance Name  |
|---------------------|---|
| 120712-84-7         | Formaldehyde, polymer with phenol, potassium salt   |
| 121028-89-5         | 2-Propenoic acid, 2-methyl-, telomer with butyl 2-methyl-2-propenoate, 1-dodecanethiol, 2-mercaptoethanol, methyl 2-methyl-2-propenoate and 2-(3-oxazolidinyl)ethyl 2-methyl-2-propenoate   |
| 121053-40-5         | Amines, <i>N</i> -coco alkyltrimethylenedi-, compds. with acrylic acid- <i>N</i> -(butoxymethyl)-2-propenamide-Et acrylate-styrene polymer and 2-(dimethylamino)ethanol   |
| 121053-41-6         | Amines, <i>N</i> -coco alkyltrimethylenedi-, polymers with acrylic acid, <i>N</i> -(butoxymethyl)-2-propenamide, 2-(dimethylamino)ethanol, Et acrylate and styrene  |
| 121053-44-9         | Pentanedioic acid, dimethyl ester, polymer with <i>N</i> -(2-aminoethyl)-1,2-ethanediamine, ammonia and (chloromethyl)oxirane   |
| 121053-47-2         | Propanoic acid, 2-hydroxy-, compd. with (chloromethyl)oxirane polymer with 2-(methylamino)ethanol, 4,4'-(1-methylethylidene)bis[phenol] and $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)]                   |
| 121372-53-0         | 2-Propenoic acid, 2-methyl-, methyl ester, telomer with butyl 2-propenoate, <i>tert</i> -dodecanethiol, ethenylbenzene, 2-(methylamino)ethanol and oxiranylmethyl 2-methyl-2-propenoate, ( $\pm$ )-2-hydroxypropanoate (salt) ( <i>S</i> )-2-hydroxypropanoate (salt) |
| 121375-94-8         | Urea, polymer with benzenamine, formaldehyde and 1,3,5-triazine-2,4,6-triamine, bisulfited  |
| 121617-09-2         | Alcohols, C <sub>16-18</sub> , propoxylated   |
| 121617-10-5         | Rosin, polymd., polymer with maleic anhydride, phthalic anhydride, tall oil, tetrahydroabietyl alc. and trimethylolpropane  |
| 122966-99-8         | Phenol, 2,4,6-tris(1-methylpropyl)-, reaction products with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], ethoxylated  |
| 123774-67-4         | Formaldehyde, polymer with ammonium hydroxide ((NH <sub>4</sub> )(OH)), 4-(1,1-dimethylethyl)phenol and phenol  |
| 124578-08-1         | 1,3-Butadiene, 2-chloro-, homopolymer, reaction products with zinc oxide  |
| 124578-12-7         | Octadecanoic acid, 12-hydroxy-, homopolymer, reaction products with polyethylenimine  |
| 125249-27-6         | Formaldehyde, polymer with methanol and nonylphenol   |
| 125302-07-0         | 2-Propenamide, polymer with formaldehyde and morpholine   |
| 125302-08-1         | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-iminobis[ethanol], 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] and 4-nonylphenol   |
| 125328-35-0         | Amides, from hydrogenated tallow and tetraethylenepentamine, polymers with epichlorohydrin and polyethylene glycol, acetates (salts)  |
| 125328-72-5         | 2-Propenoic acid, 2-methyl-, methyl ester, telomer with butyl 2-propenoate, <i>tert</i> -dodecanediol, ethenylbenzene, 2-(methylamino)ethanol, oxiranylmethyl 2-methyl-2-propenoate and 1,2-propanediol   |
| 125329-08-0         | 9-Octadecenoic acid ( <i>Z</i> -), polymer with copper(2+) sulfate (1:1), 2,5-furandione and oxybis[propanol]   |
| 125351-98-6         | Aziridine, homopolymer, reaction products with epichlorohydrin and polyethylene glycol, acetates  |
| 125352-08-1         | Amines, C <sub>12-22</sub> -alkyltrimethylenedi-, ethoxylated   |
| 125352-10-5         | Sulfuric acid copper(2+) salt (1:1), polymer with 2,5-furandione and oxybis[propanol]   |
| 125378-97-4         | 2-Propenoic acid, butyl ester, polymer with ethenylbenzene, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, 1,2-propanediol mono(2-methyl-2-propenoate) and 2,2'-thiobis[ethanol]   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 125826-31-5         | 1,2-Benzenedicarboxylic acid, di-2-propenyl ester, polymer with (Z)-butyl hydrogen 2-butenedioate, butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, 12-hydroxyoctadecanoic acid homopolymer 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, methyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid and oxiranylmethyl 2-methyl-2-propenoate, 4-nitrobenzoate |
| 125826-37-1         | Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with hydrazine, $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,4-butanediyl) and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, compd. with <i>N,N</i> -diethylethanamine  |
| 125826-39-3         | Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,4-cyclohexanedimethanol, 1,3-diisocyanatomethylbenzene, hydrazine and $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,4-butanediyl), compd. with <i>N,N</i> -diethylethanamine  |
| 125826-44-0         | Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol, 1,6-hexanediol, hydrazine, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid and 1,1'-methylenebis[4-isocyanatocyclohexane], compd. with <i>N,N</i> -diethylethanamine   |
| 128801-08-1         | Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol], 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] and phenol  |
| 128971-25-5         | Fatty acids, polymers with isophthalic acid, linoleic acid dimer and triethylenetetramine  |
| 129126-83-6         | Linseed oil, polymer with benzoic acid, formaldehyde, pentaerythritol, phenol, phthalic anhydride, rosin, TDI, 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione and trimethylolpropane  |
| 129126-87-0         | Linseed oil, polymer with benzoic acid, formaldehyde, pentaerythritol, phenol, phthalic anhydride, rosin, TDI, 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione and trimethylolpropane, compds. with 2-(dimethylamino)ethanol   |
| 129420-90-2         | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-iminobis[ethanol] and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]   |
| 129698-94-8         | 2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester, polymer with 2-methylpropyl 2-methyl-2-propenoate  |
| 129783-27-3         | Guanidine, cyano-, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine, sulfonated, sodium salts   |
| 129783-43-3         | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-iminobis[ethanol] and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], reaction products with polyethylene glycol monostearate  |
| 129783-50-2         | Benzenesulfonamide, 4-amino-, polymer with (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[2,6-dibromophenol] and 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]  |
| 129870-85-5         | Hexanedioic acid, polymer with 1,3-isobenzofurandione, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and oxybis[propanol], 2-hydroxyethyl acrylate-blocked  |
| 139682-51-2         | Fatty acids, C <sub>18</sub> -unsatd., dimers, polymers with bisphenol A, diethylenetriamine, epichlorohydrin, tall-oil fatty acids and triethylenetetramine   |
| 144030-98-8         | Benzenesulfonic acid, 4-hydroxy-, polymer with formaldehyde and urea, reaction products with aniline, 1,3-bis(hydroxymethyl)urea, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-2-imidazolidinone, disodium disulfite, formaldehyde, tetrahydro-3,5-bis(hydroxymethyl)-1 <i>H</i> -1,3,5-oxadiazin-4-one and tetrahydro-5-(2-hydroxyethyl)-1,3-bis(hydroxymethyl)-1,3,5-triazin-2-(1 <i>H</i> )-one   |
| 144031-00-5         | Propanoic acid, 2-hydroxy-, compds. with bisphenol A-epichlorohydrin-polyethylene glycol ether with bisphenol A (2:1) polymer-2-(methylamino)ethanol reaction products   |
| 144238-33-5         | 2-Propenoic acid, 2-methyl-, reaction products with bisphenol A-bisphenol A diglycidyl ether polymer benzoate and styrene  |
| 147170-42-1         | 2-Propenoic acid, telomer with 1-dodecanethiol, S-oxides, ammonium salts   |

| CAS RN <sup>1</sup> | Substance Name   |
|---------------------|--|
| 150226-40-7         | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol, 4,4'-(1-methylethylidene)bis[phenol] and 4-methylphenol, magnesium oxide complex   |
| 150226-41-8         | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and 4,4'-(1-methylethylidene)bis[phenol], magnesium oxide complex   |
| 154862-02-9         | Rosin, polymd., polymer with maleic anhydride, phthalic anhydride, tall oil, tetrahydroabietyl alc. and trimethylolethane  |
| 155240-18-9         | Benzenesulfonic acid, dodecyl-, reaction products with succinic anhydride monopolyisobutylene derivs., tetraethylenepentamine and zinc oxide   |
| 157856-36-5         | 2-Propenamide, homopolymer, hydrolyzed, sodium salts   |
| 160611-46-1         | 2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl) benzene, C <sub>8</sub> -rich C <sub>7-9</sub> -isoalkyl esters  |
| 160799-28-0         | Oxirane, methyl-, polymer with oxirane, 1-ethoxyethyl 4-tripropylphenyl ether  |
| 165307-61-9         | 1,3-Isobenzofurandione, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol and 1,2,3-propanetriol, benzoate (9Z,12Z)-9,12-octadecadienoate  |
| 176227-30-8         | Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and oxirane, esters with tall-oil fatty acids   |
| 191616-99-6         | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with chloromethyl)oxirane, reaction products with 5-amino-1,3,3-trimethylcyclohexanemethanamine and 2,2,4(or 2,4,4)-trimethyl-1,6-hexanediamine |

<sup>1</sup> CAS RN: Chemical Abstracts Service Registry Number