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HAZARD EVALUATION OF SUBSTANCES TRANSPORTED BY SHIPS

Report of the fifty-eighth session of the GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships

The report of the fifty-eighth session of the GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships (GESAMP/EHS Working Group), held by correspondence and video conferences due to the COVID-19 restrictions, from 1 April to 14 May 2021, is attached.

Any comments or questions should be addressed to:

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WORKING GROUP ON THE EVALUATION
OF THE HAZARDS OF HARMFUL
SUBSTANCES CARRIED BY SHIP
58th session
Agenda item 9

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1 INTRODUCTION

1.1 The fifty-eighth session of the GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships (GESAMP/EHS Working Group) was held by correspondence and video conferences due to the COVID-19 restrictions, from 1 April to 14 May 2021, and was chaired by Mr. Richard Luit. The Group welcomed Dr. Akiko Masuda as a new member. The list of experts who attended the meeting is set out in annex 1.

1.2 Having reviewed the agenda and provisional timetable, the Group adopted both, without amendment.

2 OUTCOME OF OTHER BODIES

Outcome of IMO bodies

2.1 The Group noted that the following meetings of relevance had taken place since the fifty-seventh session of the GESAMP/EHS Working Group:

- .1 the twenty-sixth intersessional meeting of the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 26), which took place from 5 to 9 October 2020 (PPR 8/3); and
- .2 the eight session of the PPR Sub-Committee from 22 to 26 March 2021 (PPR 8/13).

2.2 The Group noted the information presented by the Secretariat on the outcome of the above-mentioned meetings on matters of relevance to the work of the GESAMP/EHS Working Group (see annex 2), in particular:

- .1 the decision that an "SD" rating for column E2 in the GESAMP Hazard Profile (GHP) would not trigger a requirement for Pollution Category Y; and
- .2 the invitation from the PPR Sub-Committee to the GESAMP/EHS Working Group to start the consideration on how to best assess mixtures against the new discharge requirement in regulation 13.7.1.4 of MARPOL Annex II at GESAMP/EHS 58.

3 EVALUATION OF NEW SUBSTANCES

3.1 The Group recalled that when submitting new substances for evaluation by the GESAMP/EHS Working Group, a full set of data, addressing all the relevant information requirements set out in the GESAMP/EHS Product Data Reporting Form, is required. The Group further noted that insufficient data, or a lack of adequate supporting arguments, where estimates had been used, would result in no rating being assigned for the hazard concerned or, as a worst case, no full hazard profile being issued for the chemical under review.

3.2 The Group noted that three of the new substances that were submitted were in fact formulated mixtures containing a combination of assessed and unassessed components. The Group discussed the challenges classifying such mixtures separately under section 5 (paragraph 5.7 to 5.11).

3.3 The Group considered the following new substances,¹ which had been submitted for evaluation to this session:

- | | | |
|----|---|----------|
| .1 | Pyridinium, 1-(phenylmethyl)-, alkyl derivs., chlorides | EHS 2544 |
| .2 | C9-11 alcohols, ethoxylated, phosphate | EHS 2547 |

¹ The names of the substances shown in the list directly under paragraph 3.3 are in accordance with the submissions prior to GESAMP/EHS 58. The names agreed by GESAMP/EHS following consultation with the submitters are shown from paragraph 3.4 onwards and in annex 3.

.3	Polyphosphoric acids, esters with triethanolamine, sodium salts	EHS 2549
.4	Fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	EHS 2548
.5	Fast Pyrolysis Bio-oil	EHS 2545
.6	Anionic polyacrylamide in water/iso-and cyclo-alkanes (C12+) emulsion	EHS 2553
.7	Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2)	EHS 2555
.8	Ethylene glycol monoalkyl ethers and 2-mercaptoethanol	EHS 2543
.9	Fatty acids, tall-oil, reaction products with diethylenetriamine	EHS 2554
.10	Maleic acid/vinyl sulphonic acid copolymer with phosphate groups, partial sodium salt (aqueous solution)	EHS 2528
.11	Palm Oil Mill Effluent Oil	EHS 2550
.12	Palm Oil Mill Effluent Oil Refined	EHS 2552
.13	Palm Oil Mill Effluent Oil Fatty Acid Distillate	EHS 2551

3.4 The Group, in assessing the submitted products, made observations and reached conclusions, as set out in the ensuing paragraphs. The resultant hazard profiles assigned by the Working Group for inclusion in the GESAMP Composite List are set out in annex 3.

EHS 2544 Pyridinium, 1-(phenylmethyl)-, alkyl derivatives, chlorides (30% or less)/Ethoxylated nonylphenols (10% or less) in isopropanol (15% or less)/Methanol (3% or less) solution

Submitted as: Pyridinium, 1-(phenylmethyl)-, alkyl derivs., chlorides

3.5 Having considered the submission and the data provided, the Group agreed that "Pyridinium, 1-(phenylmethyl)-, alkyl derivatives, chlorides (30% or less)/Ethoxylated nonylphenols (10% or less) in isopropanol (15% or less)/Methanol (3% or less) solution" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(3)	NI	(3)	(NR)	(4)	(2)	(1)	(0)	(3)	NI	(3)	(3B)	(3)	TSs	3	D	3

EHS 2547 Alcohols (C9-11), ethoxylated, phosphate

Submitted as: C9-11 alcohols, ethoxylated, phosphate

3.6 Having considered the submission and the data provided, the Group agreed that "Alcohols (C9-11), ethoxylated, phosphate" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(0)	NI	(0)	R	3	1	0	0	(2)	NI	(2)	1	2		1	D	2

EHS 2549 Polyphosphoric acids, esters with triethanolamine, sodium salts solution

Submitted as: Polyphosphoric acids, esters with triethanolamine, sodium salts

3.7 Having considered the submission and the data provided, the Group agreed that "Polyphosphoric acids, esters with triethanolamine, sodium salts solution" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
0	NI	0	NR	1	0	0	0	(0)	NI	(0)	0	0		1	D	0

EHS 2548 Fatty acids, C18 unsaturated, reaction products with triethanolamine, dimethyl sulphate-quaternized

Submitted as: Fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized

3.8 Having considered the submission and the data provided, the Group agreed that "Fatty acids, C18 unsaturated, reaction products with triethanolamine, dimethyl sulphate-quaternized" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(0)	NI	(0)	R	(2)	(0)	0	0	(2)	NI	(2)	0	2		2	S	2

EHS 2545 Fast Pyrolysis Bio-oil

Submitted as: Fast Pyrolysis Bio-oil

3.9 Having considered the submission and the data provided, the Group confirmed the name of the substance as submitted and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(4)	NI	(4)	NR	2	0	0	(0)	(3)	NI	(3)	3A	(3)	ASs	1	Fp	3

3.10 With regard to the E1 rating (flammability), the Group noted that the material exhibits a "weak" flash between 40°C and 110°C when tested using a standard closed cup flash point apparatus and that the material does not sustain combustion in an open atmosphere. Based on this information, the Group agreed to assign an E1 rating of "1".

3.11 When considering the E2 rating (physical behaviour of substances in seawater), the Group noted the physical properties of this substance would normally indicate that the substance is a "Dissolver". However, when considering the phase diagram included in the submission, the Group also noted that the substance would separate in two phases when released into seawater. The Group therefore agreed that since the lighter phase would float, and the overall viscosity of the mixture was in the range of 40 to 224 mPa.s, the substance should be regarded as a "Persistent Floater".

EHS 2553 **Acrylamide (ACAM) – Acrylic acid, sodium salt (NaAA) copolymer (70:30 ACAM:NaAA) in water/iso- and cyclo-alkanes (C12+)**
Submitted as: Anionic polyacrylamide in water/iso-and cyclo-alkanes (C12+) emulsion

3.12 Having considered the submission and the data provided, the Group agreed that "Acrylamide (ACAM) – Acrylic acid, sodium salt (NaAA) copolymer (70:30 ACAM:NaAA) in water/iso- and cyclo-alkanes (C12+)" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(5)	NI	(5)	(NR)	(2)	(0)	(0)	(0)	(1)	NI	(1)	1	(2)	ASs	1	SD	2

3.13 Based on the OECD Guideline 439, "In vitro Skin Irritation: Reconstructed Human Epidermis Test Method" study provided on the product by the manufacturer, the Group noted that the test cannot distinguish between "Not irritating" and "Mildly irritating" and agreed to assign a D1 rating of "1".

EHS 2555 **N,N'-methylene-bis(5-methyloxazolidine)**
Submitted as: Reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2)

3.14 Having considered the submission and the data provided, the Group agreed that "N,N'-methylene-bis(5-methyloxazolidine)" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
0	NI	0	R	3	1	1	2	(3)	NI	(3)	3B	3	CMTSs	2	D	3

EHS 2543 **Ethylene glycol monoalkyl ethers (31% or less)/Ethylene glycol (25% or less)/Ethoxylated alcohols (15% or less)/Ethoxylated imidazolines (10% or less)/2-mercaptoethanol (5% or less) solution**
Submitted as: Ethylene glycol monoalkyl ethers and 2-mercaptoethanol

3.15 Having considered the submission and the data provided, the Group agreed that "Ethylene glycol monoalkyl ethers (31% or less)/Ethylene glycol (25% or less)/Ethoxylated alcohols (15% or less)/Ethoxylated imidazolines (10% or less)/2-mercaptoethanol (5% or less) solution " would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(3)	NI	(3)	(R)	(3)	(0)	(1)	(2)	(3)	NI	(3)	(2)	(3)	TSs	2	D	3

EHS 2554 **Tall-oil fatty acids reaction products with diethylenetriamine**
Submitted as: Fatty acids, tall-oil, reaction products with diethylenetriamine

3.16 Having considered the submission and the data provided, the Group agreed that "Tall-oil fatty acids reaction products with diethylenetriamine" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
2	NI	2	NR	4	1	0	(0)	(3)	NI	(3)	3A	3	Ss	1	Fp	3

EHS 2528 Maleic acid/Acrylic acid/Ethenylsulphonic acid/Ethenylphosphonic acid polymer, sodium salt in aqueous/ethylene glycol solution

Submitted as: Maleic acid/vinyl sulphonic acid copolymer with phosphate groups, partial sodium salt (aqueous solution)

3.17 Having considered the submission and the data provided, the Group agreed that "Maleic acid/Acrylic acid/Ethenylsulfonic acid/Ethenylphosphonic acid polymer, sodium salt in aqueous/ethylene glycol solution" would be a more appropriate name for entry into the Composite List and assigned a GESAMP Hazard Profile accordingly.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
0	NI	0	(NR)	0	0	(0)	(0)	(3)	NI	(3)	(2)	(3)	Ss	2	D	3

EHS 2550 Palm oil mill effluent oil

Submitted as: Palm Oil Mill Effluent Oil

3.18 Having considered the submission and the data provided, the Group confirmed the name of the substance as submitted and assigned a GESAMP Hazard Profile accordingly, based on overall analogy with similar products in the Composite list being fats of vegetable origin with intermediate to high free fatty acid content.

3.19 The Group noted that the information on the composition of the product did not indicate any impurities, and that the free fatty acid fraction (10 to 70%) was similar to EHS 2552, resulting in the same GESAMP Hazard Profile for both "Palm oil mill effluent oil" and "Palm oil mill effluent oil refined".

3.20 The Group opted for two distinct entries for "Palm oil mill effluent oil" and "Palm oil mill effluent oil refined" as requested by the manufacturer. In case additional compositional and/or hazard information on either of the products was provided in the future, this may trigger a need to differentiate between the two GESAMP Hazard Profiles.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(1)	(NI)	(1)	(0)	(1)		1	Fp	2

EHS 2552 Palm oil mill effluent oil refined

Submitted as: Palm Oil Mill Effluent Oil Refined

3.21 Having considered the submission and the data provided, the Group confirmed the name of the substance as submitted and assigned a GESAMP Hazard Profile accordingly, based on overall analogy with similar products in the Composite list being fats of vegetable origin with intermediate to high free fatty acid content. See also paragraphs 3.19 and 3.20.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(1)	(NI)	(1)	(0)	(1)		1	Fp	2

EHS 2551 Palm oil mill effluent oil fatty acid distillate
Submitted as: Palm Oil Mill Effluent Oil Fatty Acid Distillate

3.22 Having considered the submission and the data provided, the Group confirmed the name of the substance as submitted and assigned a GESAMP Hazard Profile accordingly, based on overall analogy with similar products in the Composite list being fatty acids and fatty acids distillates of vegetable origin with high free fatty acid content complemented with information available in the European REACH database on "Fatty acids, palm-oil", CAS 68440-15-3.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
(0)	NI	(0)	(R)	(3)	NI	(0)	(0)	(2)	(NI)	(2)	(2)	(2)		1	Fp	2

Refinement of column C3 (acute inhalation toxicity) and reassignment of column E1 from "Tainting of sea food" to "Flammability"

3.23 In accordance with GESAMP Hazard Evaluation Procedure for Chemicals carried by Ships, 2019 (GESAMP Reports and Studies No. 102), the Group assigned the refined ratings for acute inhalation toxicity by splitting them into C3a (vapour/mist or mist only) and C3b (vapour only). The Group also assigned flammability ratings in column E1.

3.24 In this context, the Group was informed that the Secretariat had not been able to modify the GISIS module in time to accommodate the split C3 column and the reassignment E1 column in the Composite List at the conclusion of this session. Nonetheless, the Group agreed to record the ratings in the report in order to have them included in a future version of the Composite List once the schema of the GISIS module database had been modified.

4 RE-EVALUATION OF SUBSTANCES AND CONSIDERATION OF ISSUES RELATED TO EVALUATIONS

4.1 The Group recalled that, as part of its work, it routinely considered requests for the re-assessment of products, based on the submission of new data or new scientific insights into the hazards of substances that may result in a change of a hazard profile.

4.2 The Group also recalled its ongoing review and update of the existing GESAMP/EHS files for completeness and consistency and the need for communication of any amendments relating to such matters, bringing these to the attention of the IMO (i.e. the ESPH Technical Group of the PPR Sub-Committee).

EHS 2519 Calcium chloride solution (less than 35%)

4.3 The Group considered a request for a re-evaluation "Calcium chloride solution (less than 35%)" with a concentration up to 40%. The Group noted that none of the ratings would change with this increase in concentration and agreed that the EHS name should be amended to "Calcium chloride solution" noting that a concentration of 40% would be more or less saturated at ambient temperature.

4.4 The Group also agreed to amend the D2 rating (eye irritation) based upon available data in the European REACH database on the solution, noting that the previous assessment was made on the solid salt. The Group also noted that the amended D2 rating would lead to a consequential amendment in the C3 rating as this rating was based upon the GESAMP acute inhalation toxicity extrapolation method. The amended EHS name, C3 and D2 ratings are set out below.

<i>Amended name</i>	<i>Calcium chloride solution</i>			
<i>Amended rating</i>	C3a=(1)	C3b=NI	C3=(1)	D2=1

**EHS 2524 Concentrated filtrate of the neutralized reaction product of
5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium
carbonate**

4.5 The Group considered a request for a re-evaluation of the C2 rating (acute dermal toxicity) for this material. Having reviewed the new information provided by the submitters, which included a justification to use extrapolation from oral toxicity, the Group amended the C2 rating as set out below.

Amended rating C2= (0)

EHS 2525 Choline hydroxide solution

4.6 The Group considered a request for a re-evaluation of the C2 rating (acute dermal toxicity) for this material. Having reviewed the new information provided by the submitters, which included a justification to use extrapolation from oral toxicity, the Group amended the C2 rating as set out below.

Amended rating C2= (0)

Remaining re-evaluations from EHS 57

4.7 The Group recalled its provisional re-evaluation of "Potassium chloride (less than 26%)" (EHS 2345) and "Sodium bromide solution (less than 50%)" (EHS 2387) during its last session, and agreed to conduct a full re-evaluation of these substances at their next physical meeting when the existing data files were accessible to the Group.

5 CLASSIFICATION ISSUES

Assessment of mixtures against the criteria for the new discharge requirement in MARPOL Annex II

5.1 In considering the request to provide advice on how to best assess mixtures against the new discharge requirement in regulation 13.7.1.4 of MARPOL Annex II, the Group recognized that mixtures containing components, for which special requirement 16.2.7 is assigned, could separate once discharged into the sea and form solid and/or viscous floating residues. Therefore, the Group was of the view that mixtures should be assessed with regard to the separation of components.

5.2 The Group noted that the potential separation of individual components from the mixture depends on many factors, such as the physical-chemical properties of the considered compounds and the other mixture components, and on the environmental conditions when mixing with the seawater, such as temperature and agitation. The Group also noted that for a conclusive assessment of this phenomenon to be made, phase diagrams of the mixtures would be required and submitters should be encouraged to provide such information to the ESPH Technical Group when the carriage requirements of the relevant mixtures are assessed.

5.3 Regarding an application of a cut-off value for the concentration of the individual components that meet the criteria for the assignment of special requirement 16.2.7, the Group further noted that there is no scientific basis to establish a specific limit. For one complex

mixture assessed at EHS 58, the potential separation of a viscous floating component representing about 25% of the mixture was inferred from the phase diagram, and in this case, the Group agreed to assign a "Fp" rating in the E2 column. However, the Group noted that appropriate values will vary for other complex mixtures, depending on the component specific information.

5.4 Based on this example, the ESPH Technical Group may wish to adopt a threshold of 25% total concentration of components assigned special requirement 16.2.7 as an indicative cut-off value for the assessment of mixtures in the absence of detailed information on the behaviour of the product in seawater. This approach should be adapted on a case-by case basis, taking into account component-based knowledge and evolving experience.

Estimation of acute dermal toxicity

5.5 The Group noted that information on acute toxicity resulting from dermal exposure is sometimes lacking, a function, in part, of restriction in animal testing of corrosive substances for ethical reasons. Dermal toxicity in the absence of data for submissions considered at EHS 58 (EHS 2545, EHS 2554, EHS 2525 and EHS 2524) was based on direct extrapolation from oral toxicity. This extrapolation was guided by the current content of Reports and Studies No.102 where it is indicated (section 4.3.3) that "Chemicals that are non-toxic by the oral route are generally also non-toxic by the dermal route, based on acquired experience. Similarly, orally toxic chemicals are also potentially toxic by dermal application. Data of this nature enable experts to estimate the toxic potential in the case of route-specific missing data".

5.6 The Group noted that according to the GHS and the methodology described in GESAMP Reports and Studies No.102, corrosive or irritating properties are not reflected in the acute dermal toxicity rating in column C2. The Group discussed the appropriateness of estimating acute dermal toxicity ratings, in case test data on this endpoint is missing, based solely on acute oral toxicity information. Different viewpoints were expressed and will be elaborated upon in a future session.

Assessment of formulated mixtures (preparations)

5.7 In considering the formulated mixtures that were submitted to this session, the Group noted several issues that made the overall assessment very time consuming and challenging and made the following observations on how to facilitate the assessment of such mixtures in the future:

- .1 providing test data (e.g. physical-chemical properties, eco-toxicity, toxicity) for the overall mixture would be the preferred option for the Group;
- .2 when submitting information for a component-based assessment of the mixture, information on all endpoints for each component should be provided;
- .3 if the above information is not available, a rationale as to why this information is not being submitted needs to be provided and the template in annex 5 to this report should be used in lieu of section 4 in the GESAMP/EHS Product Data Reporting Form;
- .4 if read across to other compounds are referenced in the dossier, adequate rationale to support such read across should be provided; and

- .5 when polymers form part of a mixture that is submitted for assessment on a component basis, information on any residual monomers and/or additives present in the mixture should also be provided. The identity and concentration of monomers in the mixture are a minimum requirement.

5.8 The Group also noted that if any of the above information is not provided by the submitter, the Group will not assess the product.

5.9 The Group noted that the information referred to in paragraphs 5.7.4 and 5.7.5 was also applicable for submissions that are technically pure products.

5.10 Regarding the product name used for such mixtures, the Group highlighted that the submitter should propose a technical name for the mixture which should be unique, it should define the composition of the mixture, it should properly reflect the associated hazards and it should preferably be self-explanatory (see annex III of GESAMP Reports and Studies No.102).

5.11 Taking the above into account, the Group agreed that the Secretariat will, on a general basis, advise manufacturers of formulated mixtures containing unassessed components, to make separate submissions for each unassessed component to GESAMP/EHS in order for the Group to assign GESAMP Hazard Profile to each unassessed component. With all components in a mixture having a separate GESAMP Hazard Profile, a submission could be made to the ESPH Technical Group that would subsequently assess the mixture for inclusion in list 3 (trade-named mixtures) of the MEPC.2/Circular.

6 CONSOLIDATION OF EXISTING DATA FILES

6.1 The Group recalled the ongoing review of the GESAMP/EHS files was a regular agenda item.

6.2 Not having had sufficient time to review these files during the session in light of other higher priority work on its agenda and given the practical limitations due to the online setting of the meeting, the Group agreed to defer consideration of this item to its next session.

7 COMMUNICATION AND PUBLICATION

7.1 The Group considered a submission from the European Chemical Industry Council (CEFIC) containing observations on the GESAMP Reports and Studies No.102.

7.2 In their submission, CEFIC commented on some differences between GESAMP Reports and Studies No.102 and the 7th edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in relation to the evaluation of mixtures.

7.3 One concern raised by CEFIC was that GESAMP treats UVCB² substances as "complex mixtures" whereas in other legislation (e.g. the European REACH Regulation), these "complex mixtures" are treated as substances. The implication of this could be that UVCB-substances are subject to the summation method which could be overly conservative in estimating aquatic toxicity and the bioaccumulation potential of complex mixtures.

7.4 In order to ensure a more robust rating that is more in line with GHS, CEFIC proposed that the "Tiered approach to classification of mixtures for short-term (acute) and long-term (chronic) aquatic environmental hazards", described in GHS 7th edition, should be considered when assessing poorly soluble complex substances, and that factors such as water solubility, accessibility, persistency, density (floaters or sinkers) and elimination processes should be taken into account when assessing the bioaccumulation potential for complex mixtures.

² Substances of unknown or variable composition, complex reaction products or biological materials.

7.5 The Group noted with appreciation the written observations by CEFIC on the recently updated guidance provided in Reports and Studies No.102, and the concerns raised by CEFIC in relation to the introduction of guidance for classification of mixtures.

7.6 The Group recalled that the guidance for hazard classification of mixtures was introduced as a response to requests from IMO bodies and the principles of the guidance are, in general, consistent with those of GHS, which specifies preference for test data on the mixture itself, followed by classification based on data on comparable mixtures for which bridging rules are specified and finally, dose addition or summation of classified components (paragraph 3.10 of GESAMP Reports and Studies No.102). The Group also noted that this guidance applies equally to multi-constituent substances, product formulations and complex reaction products such as hydrocarbon distillates.

7.7 The Group further noted that the summation rules for assessing bioaccumulation and biodegradation were introduced as GESAMP/EHS provides separate ratings for these endpoints in columns A1a, A1b, A1 and A2 respectively, which is different from the approach in GHS, where these properties are combined in the assessment of long-term (chronic) aquatic toxicity. The use of the summation method for these endpoints is an option for some mixtures where other data are lacking and classification would always be considered in a weight of evidence approach.

7.8 To conclude, the Group took note of the concerns raised by CEFIC and will consider these in future updates of GESAMP Reports and Studies No.102, noting that specific proposals to additionally clarify the content of paragraph 3.10 were welcome.

8 ANY OTHER BUSINESS

8.1 Based on the volume of information contained in submissions in recent sessions, the Group suggested that the deadline for submissions to future GESAMP/EHS meetings should be set sufficiently in advance of the meeting so as to allow the members of the Group to commence preparatory work at least three weeks prior to the session.

Draft provisional agenda and date of the next session

8.2 The Group agreed to the draft provisional agenda for its next session, set out in annex 6, and that its next meeting had been tentatively scheduled to take place from 9 to 13 May 2022, at IMO Headquarters in London. Subject to the aforementioned dates being confirmed, the deadline for manufacturers to submit information to GESAMP/EHS 59 would be 4 March 2022.

Membership issues

8.4 The Group noted that since the departure of Dr. Hotaka Saito and Dr. Patricio H. Rodríguez from the Group at the previous session, the efforts made to recruit new experts had only resulted in one new member of the Group (see paragraph 1.1).

8.5 As a consequence, the Group agreed to reach out to their contacts with the view to recruiting a new toxicologist or ecotoxicologist to the Group in time for the next session.

9 CONSIDERATION AND ADOPTION OF THE REPORT

9.1 The Group adopted its report, noting that it would be circulated as PPR.1/Circ.11.

ANNEX 1

**LIST OF MEMBERS ATTENDING THE FIFTY-EIGHTH SESSION
OF THE GESAMP/EHS WORKING GROUP**

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ANNEX 2

OUTCOME OF ESPH 26 AND PPR 8

Evaluation of chemicals

1 ESPH 26 considered a number of products as part of its routine assessment and assignment of carriage requirements, in accordance with the IBC Code. Decisions that are relevant to GESAMP/EHS 58 are summarized below.

Products with missing information in column C2 (dermal toxicity) in the GESAMP Hazard Profile

2 The Group considered two documents containing proposals to include "Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate" and "Choline Hydroxide Solution" in List 1 of the MEPC.2/Circular with no expiry date and validity for all countries.

3 Following consideration, the Group noted that both products had a "NI" (no information) rating in column C2 (dermal toxicity) in the GESAMP Hazard Profile and that according to the "Decisions with regard to the categorization and classification of products" (paragraph 1.4 in the annex to PPR.1/Circ.7), this is regarded as insufficient data to permit proper classification.

4 As a result of the missing information, the Group was unable to assess the products, and agreed to invite industry to prepare new submissions to GESAMP/EHS 58.

Draft amendments to the decisions with regard to the categorization and classification of products (PPR.1/Circ.7)

5 In considering a document containing a proposal to include "Tricyanohexane" in List 1 of the MEPC.2/Circular with no expiry date and validity for all countries, the Group noted that it was not clear whether a "SD" rating for column E2 in the GESAMP Hazard Profile would trigger a requirement for Pollution Category Y noting that a "S" rating in column E2 would do that.

6 The Group also noted that in paragraph 1.7 in the annex to PPR.1/Circ.7, a clarification is provided for "FD", "FE" or "FED" rating for column E2 in the GESAMP Hazard Profile, and that the decision recorded was that "this combined rating should not trigger a Pollution Category Y on the basis of the F reference presented in column E2 of the hazard profile" and that a similar clarification could be used for a "SD" rating for column E2.

7 Subsequently, the Group agreed to update the "Decisions with regard to the categorization and classification of products" contained in paragraph 1.7 of PPR.1/Circ.7, to record that a "SD" rating for column E2 in the GESAMP Hazard Profile would not trigger a requirement for Pollution Category Y.

Assessment of mixtures against the new discharge requirement in regulation 13.7.1.4 of MARPOL Annex II

8 When considering the outcome of GESAMP/EHS 57, the Sub-Committee noted a comment from the delegation of Germany in relation to the request to the GESAMP/EHS Working Group to provide advice on how to best assess mixtures against the new discharge

requirement in regulation 13.7.1.4 of MARPOL Annex II. The delegation of Germany emphasized the importance of this work in order to ensure a consistent implementation of the new regulation for both pure substances and mixtures, and suggested that the Sub-Committee should encourage the GESAMP/EHS Working Group to start the consideration of this matter at its upcoming session.

9 Taking into account the above, the Sub-Committee agreed to request the Secretariat to convey the invitation to the GESAMP/EHS Working Group to start the consideration of this matter at GESAMP/EHS 58.

ANNEX 3

GESAMP HAZARD PROFILES FOR NEW SUBSTANCES SUBMITTED FOR EVALUATION TO GESAMP/EHS 58

1 This annex sets out the GESAMP Hazard Profiles (GHP) assigned for the products submitted to the current session. The respective substances and their GHPs are summarized in the subsequent table.

ANNEX 4

UPDATED GESAMP/EHS COMPOSITE LIST

Notes:

- 1 In the Composite List, both EHS and TRN (shipping) names are shown for each product. The alphabetical listing of the products is based on the EHS names.
- 2 Any changes introduced in the table since the last issue of the Composite List are highlighted.
- 3 Entries with an EHS name marked with a single asterisk (*) represent cleaning additive components that have only a partial hazard profile assigned. These profiles **cannot be used** for mixture calculations in relation to bulk shipments.
- 4 Entries with an EHS name marked with a double asterisk (**) represent mixture components for which only a partial hazard profile has been assigned. These profiles **may be used** for mixture calculations in relation to bulk shipments.
- 5 Entries with an EHS name marked with a hash mark (#) reflect that for the **C3 rating**, the product, as a vapour rather than an aerosol or mist, could be considered to have a lower inhalation hazard for the purposes of risk management.
- 6 Entries with an EHS name marked with an exclamation mark (!) refer to a mixture that contains components with substantially different physical properties and therefore different physical behaviours when released in the marine environment. The **E2 rating** assigned reflects the most severe impact from an environmental standpoint. For example, a mixture assigned a rating of Fp may also have a major component(s) with sinker characteristics (S) or dissolver characteristics (D).

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GESAMP Hazard Profiles**

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EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Acetic acid	13	0	0	0	R	1	NI	1	1	1	3C	3			D	3
Acetic acid	64								CAS No		64-19-7					
Acetic anhydride	12	0	0	0	R	1	NI	1	0	2	3	3	A		D	3
Acetic anhydride	65								CAS No		108-24-7					
Acetochlor (ISO)	2047	3	2	2	NR	4	NI	1	0	(1)	0	0			S	2
Acetochlor	66								CAS No		34256-82-1					
Acetone	15	0	0	0	R	0	0	0	0	0	1	2		NT	DE	2
Acetone	67								CAS No		67-64-1					
Acetone cyanohydrin	14	0	0	0	R	4	NI	3	4	3	(3)	(3)			D	3
Acetone cyanohydrin	68								CAS No		75-86-5					
Acetonitrile	16	0	0	0	R	1	NI	1	1	2	1	2			D	2
Acetonitrile	69								CAS No		75-05-8					
Acetonitrile (Low purity grade)	2333	0	NI	0	R	3	NI	1	1	2	1	2			D	2
Acetonitrile (Low purity grade)	2876								CAS No							
Acid mixtures (nitrating acid)	289	Inorg	NI	0	Inorg	(2)	NI	3	3	4	3C	3			D	3
Nitrating acid (mixture of sulphuric and nitric acids)	497								CAS No							
Acrylamide	23	0	0	0	R	2	0	2	2	(2)	1	2	CMNSs		D	3
Acrylamide solution (50% or less)	70								CAS No		79-06-1					
Acrylamide (ACAM) – Acrylic acid, sodium salt (NaAA) Copolymer (70:30 ACAM:NaAA) in water/iso- and cyclo-alkanes (C12+)	2553	(5)	NI	(5)	(NR)	(2)	(0)	(0)	(0)	(1)	1	(2)	ASs		SD	2
	4294								CAS No							
Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (68:32 ACAM:AMPS)	2536	0	NI	0	NR	1	0	(0)	(0)	(0)	(0)	(0)			Fp	2
Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (68:32 ACAM:AMPS)	4245								CAS No							
Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (70:30 ACAM:AMPS)	2535	0	NI	0	NR	0	0	(0)	(0)	(0)	(0)	(0)			Fp	2
Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (70:30 ACAM:AMPS)	4244								CAS No							
Acrylamide, polymer with sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS), tetraethylene glycol diacrylate, and methylene-bisacrylamide	2534	0	NI	0	NR	1	0	0	0	(0)	0	0			Fp	2
Acrylamide, polymer with sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS), tetraethylene glycol diacrylate, and methylene-bisacrylamide	4243								CAS No							

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EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Acrylic acid	24	0	0	0	R	4	NI	2	2	2	3C	3			D	3
Acrylic acid	71								CAS No		79-10-7					
Acrylic acid / dimethyldiallylammonium chloride copolymer, partial sodium salt (MWt 1500-4000, aqueous solution)	2406	0	NI	0	R	0	0	0	0	(0)	0	0			D	0
Acrylic acid / dimethyldiallylammonium chloride copolymer, partial sodium salt (MWt 1500-4000, aqueous solution)	3682								CAS No							
Acrylic acid/ethenesulphonic acid copolymer with phosphonate groups, sodium salt (aqueous solution)	2417	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Acrylic acid/ethenesulphonic acid copolymer with phosphonate groups, sodium salt solution	3693								CAS No							
Acrylonitrile	25	0	2	2	NR	3	0	2	3	3	2	2	CMSs	NT	DE	3
Acrylonitrile	72								CAS No		107-13-1					
Acrylonitrile-styrene copolymer dispersion in polyether polyol (LOA)	1432	NI	0	0	NI	1	NI	0	(0)	(0)	0	(0)			S	0
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	73								CAS No							
Adiponitrile	26	0	0	0	R	1	NI	3	(3)	3	3	(3)			FD	3
Adiponitrile	74								CAS No		111-69-3					
Alachlor (ISO)	1488	3	3	3	NI	4	1	1	0	(2)	1	0	CSs		S	3
Alachlor technical (90% or more)	75								CAS No		15972-60-8					
Alcoholic beverages	293	0	0	0	R	0	0	0	0	0	0	1			D	1
Alcoholic beverages, n.o.s.	85								CAS No							
Alcoholic silicasol	2198	0	0	0	R	0	0	0	0	0	1	2			DE	2
Tetraethyl silicate monomer/oligomer (20% in ethanol)	2475								CAS No							
Alcohol(C12-C16) poly(20 and above)ethoxylates	1482	4	(3)	(3)	R	2	0	(0)	(0)	(2)	2	1			D	2
Alcohol (C12-C16) poly(20+)ethoxylates	78								CAS No							
Alcohol(C6-C17)(secondary) poly(3-6)ethoxylate	722	4	3	3	R	4	2	0	(0)	(3)	3	2			D	3
Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates	81								CAS No							
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylate	295	3	3	3	R	4	1	1	0	(3)	3	3			D	3
Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates	80								CAS No							
Alcohol (C10-C18) poly (7) ethoxylate (#)	2488	NI	(3)	(3)	R	3	1	(1)	(0)	(2)	(2)	(2)			D	2
Alcohol (C10-C18) poly (7) ethoxylate	3979								CAS No		85422-93-1					
Alcohol (C8-C11) poly(2.5-9)ethoxylates	2094	3	3	3	R	3	NI	1	0	(2)	(2)	(2)			D	2
Alcohol (C9-C11) poly(2.5-9)ethoxylate	2209								CAS No							

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EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alcohol(C12-C16) poly(1-6) ethoxylates	294	5	3	3	R	4	1	0	0	(2)	2	2			FD	2
Alcohol (C12-C16) poly(1-6) ethoxylates	77									CAS No						
Alcohol(C12-C16) poly(7-19)ethoxylates	1481	4	3	3	R	4	1	1	0	(3)	3	3			D	3
Alcohol (C12-C16) poly(7-19)ethoxylates	79									CAS No						
Alcohol(C12-C14)poly(2)ethoxylate sulphate, sodium salt (*)	2419	2	NI	2	R	3	NI	NI	NI	NI	NI	NI			NI	NI
	3695									CAS No						
Alcohols (C8-C11)	2279	5	2	2	(R)	(3)	(1)	(0)	(0)	(2)	(2)	(2)			Fp	2
Alcohols (C8-C11), primary, linear and essentially linear	2887									CAS No						
Alcohols, C13 and above as individuals and mixtures	2039	5	2	2	R	4	1	0	0	0	(1)	(1)			Fp	2
Alcohols (C13+)	86									CAS No						
Alcohols (C9-11), ethoxylated, phosphate	2547	(0)	NI	(0)	R	3	1	0	0	(2)	1	2			D	2
	4288									CAS No	136504-88-6					
Alcohols, C10-C16 ethoxylated propoxylated (*)	2450	0	NI	0	R	3	NI	NI	NI	NI	NI	NI			NI	NI
	3868									CAS No						
Alcohols (C12-C13), linear	2294	5	2	2	R	4	(1)	0	0	(1)	1	1			Fp	2
Alcohols (C12-C13), primary, linear and essentially linear	2950									CAS No						
Alcohols (C14-C18), linear	2293	5	2	2	R	0	1	0	0	(1)	1	1			Fp	2
Alcohols (C14-C18), primary, linear and essentially linear	2951									CAS No						
Alcohols, linear (C10-C14)	2365	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(2)	(2)	(2)			Fp	2
Decyl/Dodecyl/Tetradecyl alcohol mixture	3128									CAS No						
Alkanes (C6-C9)	2202	(5)	NI	(5)	(R)	(4)	NI	(0)	(0)	(1)	(2)	(2)	N		FE	2
Alkanes (C6-C9)	88									CAS No						
Iso- and cyclo-alkanes (C10-C11)	2203	(5)	NI	(5)	NI	(0)	(0)	(0)	(0)	(1)	(1)	(0)			F	1
Iso- and cyclo-alkanes (C10-C11)	393									CAS No						
Iso-and cyclo-alkanes (C12+)	2204	(5)	NI	(5)	NI	(0)	NI	0	0	(1)	(0)	(0)	A		NI	2
Iso- and cyclo-alkanes (C12+)	394									CAS No						
Alkanes (C5-C7), linear and branched	2464	(5)	NI	(5)	(R)	(3)	(0)	0	0	0	2	0	NA		E	2
Alkanes (C5-C7), linear and branched	3799									CAS No						
Alkanes (C10-C17), linear and branched	2463	(5)	NI	(5)	R	0	1	0	0	(0)	0	0	A		F	3
Alkanes (C10-C17), linear and branched	3815									CAS No						

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EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkanes (C10-C26), linear and branched	2392	0	NI	0	R	0	NI	0	0	(1)	1	1	A		F	3
Alkanes (C10-C26), linear and branched (flashpoint ≤60°C)	3736								CAS No		90622-53-0					
Alkanes (C4-C12) linear, branched and cyclic (containing benzene up to 1%)	2510	(4)	(4)	(4)	R	(3)	(2)	0	0	0	2	(1)	CMA		F	3
Alkanes (C4-C12) linear, branched and cyclic	3999								CAS No							
Alkanes (C9-C24) linear, branched and cyclic	2540	(5)	(4)	(4)	NR	(2)	(1)	0	(0)	0	(2)	0	A		F	3
Alkanes (C9-C24) linear, branched and cyclic	4250								CAS No							
Alkanes (C9-C24) linear, branched and cyclic	2511	(5)	(4)	(4)	NR	(2)	(1)	0	(0)	0	(2)	0	A		F	3
Alkanes (C9-C24) linear, branched and cyclic (flashpoint >60°C)	3998								CAS No							
n-Alkanes (C9-C11)	2449	(5)	NI	(5)	R	0	(0)	0	0	(0)	1	0	A		F	3
n-Alkanes (C9-C11)	3884								CAS No							
n-Alkanes (C10-C20)	296	(5)	(5)	(5)	(R)	(0)	NI	(0)	(0)	(0)	(1)	(1)	A		Fp	3
n-Alkanes (C10-C20)	471								CAS No							
Alkane (C14-C17) sulphonic acid, sodium salt (60-65% solution)	334	2	2	2	R	3	1	0	0	(2)	2	2			D	2
Sodium alkyl (C14-C17) sulphonates (60-65% solution)	1153								CAS No							
Alkaryl polyether (C9-C20) (LOA)	1974	4	NI	4	NR	3	NI	0	0	(3)	2	3			S	2
Alkaryl polyethers (C9-C20)	90								CAS No							
Alkenoic acid ester, borated	2376	5	(3)	(3)	R	2	NI	0	0	(2)	2	0			Fp	2
	3153								CAS No							
Alkenylamide, long chain, more than C10	1858	3	NI	3	(NR)	4	NI	0	(0)	(1)	0	1			Fp	2
Alkenyl (C11+) amide	838								CAS No							
Alkenyl succinic anhydride	298	0	0	0	NR	1	NI	0	0	(2)	2	(2)	SsSr		FD	2
Alkenyl (C16-C20) succinic anhydride	2336								CAS No							
Alkyl acrylate/Vinyl pyridine copolymer in toluene	299	2	2	2	R	2	0	0	0	(2)	2	2	RNA		F/Fp	3
Alkyl acrylate/vinylpyridine copolymer in toluene	94								CAS No							
Alkyl/cyclo(C4-C5)alcohols	2447	(1)	(1)	(1)	(R)	(2)	(0)	(1)	(1)	(2)	(2)	(3)			FED	3
	3825								CAS No							
Alkyl/cyclo(C4-C5)alcohols	2447	(1)	(1)	(1)	(R)	(2)	(0)	(1)	(1)	(2)	(2)	(3)			FED	3
Alkyl/cyclo (C4-C5) alcohols	3962								CAS No							
Alkyl amine, alkenyl acid ester, mixture	1433	NI	NI	NI	NI	1	NI	(0)	(0)	NI	NI	NI			Fp	2
Alkyl(C8+)amine, Alkenyl (C12+) acid ester mixture	98								CAS No							

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EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	2267	4	4	4	R	4	4	0	0	(1)	1	0			S	1
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	280									CAS No						
Alkylated phenols (C4-C9)	2273	0	2	0	NR	1	0	1	0	(2)	1	1			Fp	2
Alkylated (C4-C9) hindered phenols	2575									CAS No						
Alkylbenzene distillation bottoms	300	0	2	2	NR	0	(3)	0	0	1	1	1			Fp	2
Alkylbenzene distillation bottoms	3106									CAS No						
Alkyl (C12-C15) benzene/indane/indene mixture	1872	0	4	4	NR	0	NI	0	0	0	0	2			FE	2
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)	103									CAS No						
Alkylbenzene mixtures (containing at least 50% of toluene)	2303	(2)	(2)	(2)	(R)	(3)	(0)	0	0	(2)	2	2	ACMNR		FE	3
Alkylbenzene mixtures (containing at least 50% of toluene)	2909									CAS No						
Alkyl (C3-C4) benzenes	2206	(3)	NI	(3)	R	4	NI	0	0	(2)	(2)	(1)			FE	2
Alkyl (C3-C4) benzenes	91									CAS No						
Alkyl (C5-C8) benzenes	2207	5	4	4	(NR)	4	NI	0	0	(2)	(2)	(1)			F	2
Alkyl (C5-C8) benzenes	92									CAS No						
Alkyl benzenes, C9-C17 (straight or branched)	1783	0	4	4	NR	1	NI	0	(0)	(1)	(1)	(1)			F	1
Alkyl(C9+)benzenes	100									CAS No						
Alkylbenzenes mixture (containing less than 1% naphthalene)	2423	3	3	3	NR	4	NI	0	0	(2)	2	1	A		F	3
Alkylbenzenes mixture (containing less than 1% naphthalene)	3600									CAS No						
Alkylbenzenes mixtures (containing naphthalene)	2424	(3)	(3)	(3)	(NR)	(4)	NI	0	0	(1)	1	1	A		F	3
Alkylbenzenes mixtures (containing naphthalene)	3966									CAS No						
Alkyl(C11-C13)benzenesulphonates, straight chain	301	3	3	3	R	3	1	1	(1)	(3)	2	3			FD	3
Alkylbenzene sulphonic acid, sodium salt solution	102									CAS No	42615-29-2					
Alkyl (C3-C11) benzenes with phenol-formaldehyde/acrylate polymers (33% or less) (#)	2517	4	NI	4	NR	2	0	0	0	(2)	(2)	(2)	MASs		F	3
Alkyl (C3-C11) benzenes with phenol-formaldehyde/acrylate polymers (33% or less)	4198									CAS No						
Alkyl(branched C10-C18, C12 rich)phenols	2504	0	4	4	NR	5	3	0	0	(3)	3	3	R		Fp	3
Alkylphenols (C10-C18, C12 rich)	4070									CAS No						
Alkyl dithiocarbamate (C19-C35)	2236	0	NI	0	NI	1	NI	0	0	(0)	0	0			S	0
Alkyl dithiocarbamate (C19-C35)	2538									CAS No						
Alkyl dithio thiaziazole (C6-C24) (LOA)	1981	5	NI	5	NR	1	NI	0	0	(0)	0	0			S	2
Alkyl dithiothiaziazole (C6-C24)	104									CAS No						

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Alkyl(C4-C20) ester copolymer (LOA)	1986	NI	0	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Alkyl ester copolymer (C4-C20)	2202									CAS No						
Alkyl naphthalenes, crude (containing less than 1% naphthalene)	2425	4	4	4	R	4	NI	0	0	(1)	1	1	AC		F	3
Alkyl naphthalenes (containing less than 1% naphthalene), crude	3601									CAS No						
Alkyl naphthalenes, crude (containing naphthalene)	2426	(4)	(4)	(4)	(R)	(4)	NI	0	0	(1)	1	1	AC		F	3
Alkyl naphthalenes (containing naphthalenes), crude	3699									CAS No						
Alkyl (C7-C9) nitrates	8	4	NI	4	NR	3	NI	0	0	(3)	2	(3)			F	3
Alkyl (C7-C9) nitrates	93									CAS No						
Alkyl(C8-C40)phenol sulphide (LOA)	1985	0	NI	0	NR	0	NI	0	0	(1)	1	1			FD	1
Alkyl (C8-C40) phenol sulphide	2253									CAS No						
Alkyl(C8-C9)phenylamine, in aromatic solvent (LOA)	2096	2	NI	2	NR	3	NI	(0)	(0)	(2)	2	2			S	2
Alkyl (C8-C9) phenylamine in aromatic solvents	2200									CAS No						
Alkyl (C9-C15) phenyl propoxylate	2188	0	NI	0	NR	0	NI	0	0	(2)	2	2			FD	2
Alkyl (C9-C15) phenyl propoxylate	2430									CAS No						
Alkyl[(C8-C10)/(C12-C14)]:(<40%/>60%)polyglucoside mixture solution (max 55% active material)	2134	3	NI	3	R	3	0	0	0	(3)	2	3			D	3
Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)	2248									CAS No			141464-42-8			
Alkyl[(C8-C10)/(C12-C14)]:(>60%/<40%)polyglucoside mixture solution (max 55% active material)	2135	3	NI	3	R	2	0	0	0	(2)	2	2			D	2
Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)	2246									CAS No			141464-42-8			
Alkyl(C8-C10)polyglucoside solution (max 65% active material)	2136	1	NI	1	R	2	0	0	0	(2)	2	2			D	2
Alkyl (C8-C10) polyglucoside solution (65% or less)	2245									CAS No			68515-73-1			
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	2133	3	NI	3	R	2	0	0	0	(3)	2	(3)			D	3
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	2247									CAS No						
Alkyl(C12-C14)polyglucoside solution (max 55% active material)	2137	3	NI	3	R	3	0	0	0	(3)	2	3			D	3
Alkyl (C12-C14) polyglucoside solution (55% or less)	2249									CAS No			110615-47-9			
Alkyl (C10-C15, C12 rich) phenol poly(4-12)ethoxylate (#)	2480	(5)	(4)	(4)	(NR)	(2)	NI	(0)	(0)	(2)	(2)	(1)			SD	2
Alkyl (C10-C15, C12 rich) phenol poly(4-12)ethoxylate	3953									CAS No						
Alkylsulphonic acid ester of phenol (MESAMOLL)	1878	5	NI	5	NR	0	NI	0	(0)	(0)	0	0			S	0
Alkyl sulphonic acid ester of phenol	1701									CAS No			91082-17-6			
Alkyltoluenes	2374	0	2	2	NR	0	NI	0	(0)	(1)	0	1			Fp	2
Alkyl (C18+) toluenes	3148									CAS No						

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Alkyl(C18-C28)toluenesulphonic acid (>90% in mineral oil)	2429	0	4	4	NR	3	NI	0	0	(3)	2	3	Ss		Fp	3
Alkyl(C18-C28)toluenesulphonic acid	3658									CAS No						
Alkyl(C18-C28)toluenesulphonic acid, calcium salts, borated (up to 70% in mineral oil)	2404	0	4	4	NR	0	NI	(0)	(0)	(1)	(1)	(1)	Ss		S	2
Alkyl(C18-C28)toluenesulphonic acid, calcium salts, borated	3661									CAS No						
Alkyl(C18-C28)toluenesulphonic acid, calcium salts, high overbase (up to 70% in mineral oil)	2373	(0)	(4)	(4)	(NR)	(0)	NI	0	0	(0)	0	0	Ss		S	2
Alkyl (C18-C28) toluenesulphonic acid, calcium salts, high overbase	3149									CAS No						
Alkyl(C18-C28)toluenesulphonic acid, calcium salts, low overbase (up to 60% in mineral oil)	2409	0	4	4	NR	0	NI	0	0	(2)	2	0	Ss		Fp	3
Alkyl (C18-C28) toluenesulphonic acid, calcium salts, low overbase	3685									CAS No						
Allyl alcohol	28	0	0	0	R	4	NI	2	3	3	2	3	A		D	3
Allyl alcohol	105									CAS No	107-18-6					
Aluminium chloride/hydrogen chloride solution	336	Inorg	NI	2	Inorg	3	1	1	(0)	3	(3C)	3			D	3
Aluminium chloride (30% or less)/Hydrochloric acid (20% or less) solution	110									CAS No						
Aluminium hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)	2438	Inorg	0	0	Inorg	3	NI	0	0	(3)	3B	(3)			D	3
Aluminium hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)	3807									CAS No						
Aluminium sulphate solution	2205	Inorg	Inorg	2	Inorg	3	1	1	(0)	(3)	(2)	(3)			D	3
Aluminium sulphate solution	111									CAS No						
Amides, coco, N-[3-(dibutylamino) propyl], acrylates	2513	(4)	NI	(4)	NR	4	NI	0	0	(2)	2	2			Fp	2
	4162									CAS No	851545-09-0					
2-(2-Aminoethoxy) ethanol	75	0	0	0	NR	1	0	0	1	(3)	3	3			D	3
2-(2-Aminoethoxy) ethanol	37									CAS No	929-06-6					
Aminoethylethanolamine	68	0	0	0	NR	1	0	0	0	(3)	3B	2	SsSr		D	3
Aminoethyl ethanolamine	112									CAS No	111-41-1					
Aminoethylethanolamine/Aminoethyldiethanolamine solution	74	Inorg	0	0	NR	1	0	(0)	(0)	(3)	(3B)	(2)	SsSr		D	3
Aminoethyldiethanolamine/Aminoethylethanolamine solution	113									CAS No						
N-Aminoethylpiperazine	88	0	0	0	NR	1	NI	0	2	(3)	3	3	Ss		D	3
N-Aminoethylpiperazine	472									CAS No	140-31-8					
2-Amino-2-(hydroxymethyl)-1,3-propanediol solution(40% or less)	89	0	NI	0	NI	1	NI	0	0	NI	NI	NI			D	NI
2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less)	38									CAS No	77-86-1					
2-Amino-2-methyl-1-propanol	90	0	0	0	NR	1	NI	0	0	(3)	3	3			DE	3
2-Amino-2-methyl-1-propanol	39									CAS No	124-68-5					

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Ammonia (anhydrous and aqueous, 28% or less)	91	0	0	0	R	3	2	1	(2)	3	3	3			DE	3
Ammonia aqueous (28% or less)	114								CAS No		7664-41-7					
Ammonium bisulphite solution, greater than 15%	1730	NI	NI	NI	NI	1	NI	NI	NI	NI	2	2			D	2
Ammonium bisulphite solution (70% or less)	115								CAS No		10192-30-0					
Ammonium chloride solution (less than 25%)	2388	0	NI	0	Inorg	1	0	0	(0)	(2)	2	2			D	2
Ammonium chloride solution (less than 25%) (*)	3411								CAS No		12125-02-9					
Ammonium lignosulphonate (46% solution in water)	2086	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Ammonium lignosulphonate solutions	118								CAS No		8061-53-0					
Ammonium nitrate solutions	1912	Inorg	0	0	Inorg	1	NI	0	0	(2)	1	2			D	2
Ammonium nitrate solution (93% or less) (*)	119								CAS No							
Ammonium polyphosphate solution	1764	Inorg	0	0	Inorg	1	NI	0	0	0	1	0			D	1
Ammonium polyphosphate solution	120								CAS No		10-34-0					
Ammonium sulphate	99	0	0	0	Inorg	1	(0)	0	(0)	(0)	0	0			D	0
Ammonium sulphate solution	121								CAS No		7783-20-2					
Ammonium sulphide soln.(45% or less)	310	Inorg	0	0	Inorg	3	NI	1	0	(2)	2	2	N		D	2
Ammonium sulphide solution (45% or less) (*)	122								CAS No		12124-99-1					
Ammonium thiocyanate/ Ammonium thiosulphate solution	1732	Inorg	0	0	Inorg	1	NI	1	NI	NI	NI	NI			D	NI
Ammonium thiocyanate (25% or less)/Ammonium thiosulphate (20% or less) solution	123								CAS No							
Ammonium thiosulphate solution (60% or less)	312	Inorg	0	0	Inorg	1	NI	0	(0)	(1)	(1)	(1)			D	1
Ammonium thiosulphate solution (60% or less)	124								CAS No		7783-18-8					
Amyl acetate	255	2	2	2	NR	2	NI	0	(0)	0	1	1		NT	FED	2
Amyl acetate (all isomers)	125								CAS No		628-63-7					
tert-Amyl ethyl ether	2428	3	NI	3	NR	1	NI	0	(0)	0	2	2			E	2
tert-Amyl ethyl ether	3623								CAS No							
tert-Amyl methyl ether	2141	1	NI	1	NI	4	NI	1	0	2	0	1			ED	2
tert-Amyl methyl ether	2210								CAS No							
Amyl propionate	1484	2	NI	2	R	2	NI	0	0	(2)	2	1			F	2
n-Pentyl propionate	484								CAS No		624-54-4					
Aniline	261	0	0	0	R	3	2	2	2	3	1	3	CTSs	NT	FD	3
Aniline	127								CAS No		62-53-3					

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Apple juice	275	0	NI	0	R	0	0	0	0	0	0	0			D	0
Apple juice	130								CAS No							
Aryl polyolefin (C11-C50) (LOA)	1979	NI	NI	0	NR	0	NI	0	0	0	0	0			Fp	2
Aryl polyolefins (C11-C50)	131								CAS No							
L-Aspartic acid, homopolymer, sodium salt (aqueous solution)	2421	0	0	0	NR	0	NI	0	(0)	0	0	0			D	0
L-Aspartic acid, homopolymer, sodium salt (aqueous solution)	3697								CAS No							
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95-120 Celcius)	286	(5)	NI	(5)	(R)	(4)	NI	0	0	(0)	(0)	(0)			FE	2
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)	132								CAS No							
Aziridine polymer with methyloxirane (78% in diethylene glycol monoethyl ether)	2436	0	NI	0	NR	2	0	0	0	0	1	0			Fp	2
Aziridine polymer with methyloxirane (78% in diethylene glycol monoethyl ether)	3751								CAS No							
Barium long chain alkaryl sulphonate (C11-C50) (LOA)	1978	4	NI	4	NR	3	NI	2	0	(2)	0	0			S	2
Barium long chain (C11-C50) alkaryl sulphonate	2370								CAS No							
Benzaldehyde	2498	1	NI	1	R	3	NI	1	(1)	2	2	2			FD	2
Benzaldehyde	4132								CAS No		100-52-7					
Benzene	324	2	1	1	R	2	NI	1	0	0	2	2	CTM	NT	E	3
Benzene and mixtures having 10% benzene or more (i)	133								CAS No		71-43-2					
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear	2378	0	3	3	NR	3	0	0	0	(0)	0	0			Fp	2
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear	3405								CAS No							
Benzene sulphonyl chloride	320	1	1	1	R	3	NI	1	(2)	(3)	3	3	Ss		SD	3
Benzene sulphonyl chloride	134								CAS No		98-09-9					
1,2,4-Benzene tricarboxylic acid, trioctyl ester	1733	0	0	0	NR	0	NI	0	(0)	2	1	1			Fp	2
Benzenetricarboxylic acid, trioctyl ester	136								CAS No							
Benzyl acetate	348	1	NI	1	R	3	1	1	0	2	1	1			SD	2
Benzyl acetate	138								CAS No		140-11-4					
Benzyl alcohol	349	1	NI	1	R	2	NI	1	1	2	2	2			SD	2
Benzyl alcohol	139								CAS No		100-51-6					
Benzyl chloride	352	NI	1	1	R	3	1	1	(2)	3	3	3	CSsA		S	3
Benzyl chloride	140								CAS No		100-44-7					
Bis(2-ethylhexyl) terephthalate	2437	0	3	3	R	0	0	0	0	(1)	1	1			Fp	2
Bis(2-ethylhexyl) terephthalate	3752								CAS No							

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N,N-Bis(2-hydroxyethyl)oleamide (LOA)	2110	5	NI	5	NR	NI	NI	0	0	(2)	2	2			Fp	2
N,N-bis(2-hydroxyethyl) oleamide	2201									CAS No						
Bismuth oxide	2483	Inorg	(0)	(0)	Inorg	(0)	(0)	0	(0)	0	0	0			S	0
Bismuth oxide	4059									CAS No	1304-76-3					
Bis[3-(triethoxysilyl)propyl]amine	2444	1	NI	1	R	1	NI	0	0	(2)	2	2			D	2
	3823									CAS No	13497-18-2					
Borax, anhydrous or hydrated, crude or refined	359	Inorg	0	0	Inorg	1	0	0	0	(1)	1	1	R		S	3
Borax	143									CAS No	1303-96-4					
Boric acid	360	Inorg	0	0	Inorg	1	0	0	(0)	(1)	1	1	R		S	3
Boric acid	2254									CAS No	10043-35-3					
Bromochloromethane	2084	1	1	1	NR	1	NI	0	0	0	1	0			SD	1
Bromochloromethane	145									CAS No	74-97-5					
1-Bromopropane	2229	2	NI	2	NI	NI	NI	0	(0)	0	(2)	(2)			SD	2
1-Bromopropane	2696									CAS No						
Butanol	381	0	(0)	0	R	0	NI	0	0	0	2	3		NT	D	3
Butyl alcohol (all isomers)	2216									CAS No	71-36-3					
Butanol	381	0	(0)	0	R	0	NI	0	0	0	2	3		NT	D	3
n-Butyl alcohol	474									CAS No	71-36-3					
sec-Butanol	383	0	(0)	0	R	0	NI	0	0	0	0	2		NT	D	2
sec-Butyl alcohol	638									CAS No	78-92-2					
tert-Butanol	384	0	0	0	NR	1	NI	0	0	0	1	3		NT	D	3
tert-Butyl alcohol	686									CAS No	75-65-0					
2-Butanone	385	0	NI	0	R	1	0	0	0	1	2	2			DE	2
Methyl ethyl ketone	446									CAS No	78-93-3					
Butene oligomer	386	0	NI	0	NR	(4)	0	0	0	0	0	1			FE	2
Butene oligomer	146									CAS No						
2-Butoxyethanol/hyperbranched polyesteramide mixture	2446	NI	NI	(0)	NR	(2)	NI	1	2	2	1	2			D	2
2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)	3901									CAS No						
Butyl acetate	387	1	NI	1	R	2	NI	0	0	0	0	1			FED	2
Butyl acetate (all isomers)	147									CAS No	123-86-4					

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Butyl acrylate	390	2	NI	2	R	3	NI	1	1	1	2	2	SsA		FED	2
Butyl acrylate (all isomers)	148								CAS No		141-32-2					
Butylamine	392	0	NI	0	R	2	NI	2	2	3	3C	3			DE	3
Butylamine (all isomers)	154								CAS No		109-73-9					
Butyl benzene	1774	4	NI	4	NI	4	1	0	0	(2)	2	1			Fp	2
Butylbenzene (all isomers)	155								CAS No		104-51-8					
Butyl benzyl phthalate	398	4	4	4	R	4	2	0	0	(0)	(0)	(0)	R		S	3
Butyl benzyl phthalate	149								CAS No		85-68-7					
Butyl butyrate	399	2	NI	2	(R)	2	NI	0	0	(1)	1	NI			FE	2
Butyl butyrate (all isomers)	150								CAS No		109-21-7					
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	2295	(5)	NI	(5)	(R)	(3)	NI	0	0	0	2	2	Ss		FE	2
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	153								CAS No							
Butylene glycol(s)	402	0	NI	0	R	1	NI	1	0	0	0	0			D	1
Butylene glycol	156								CAS No		110-63-4					
Butylene glycol methyl ether acetate	953	1	1	1	R	3	NI	0	(0)	(1)	1	1			FED	1
3-Methoxybutyl acetate	58								CAS No		4435-53-4					
Butylene glycol monomethyl ether	952	0	NI	0	R	1	NI	0	0	(1)	0	1			D	1
3-Methoxy-1-butanol	57								CAS No		2517-43-3					
1,2-Butylene oxide	403	0	NI	0	NR	2	NI	1	1	2	2	2	C		DE	3
1,2-Butylene oxide	8								CAS No		106-88-7					
Butyl methacrylate	409	2	NI	2	NR	1	NI	0	0	0	2	2	Ss		FE	2
Butyl methacrylate	151								CAS No		97-88-1					
Butyl octyl phthalate	410	5	NI	5	(R)	0	2	0	(0)	(1)	(1)	(1)			Fp	2
Butyl octyl phthalate	2749								CAS No		84-78-6					
Butyl phosphate/dibutyl phosphate mixture	2434	2	NI	2	R	1	0	0	(0)	(3)	2	3			D	3
Butyl phosphate/dibutyl phosphate mixture	3749								CAS No							
Butyl propionate	1483	2	NI	2	R	2	NI	0	0	0	1	1			FED	2
n-Butyl propionate	476								CAS No		590-01-2					
1-Butylpyrrolidin-2-one	2490	1	(1)	1	R	1	0	1	0	0	1	2			D	2
	4124								CAS No		3470-98-2					

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Butyl stearate	413	0	NI	0	(R)	0	NI	0	NI	NI	2	NI			Fp	2
Butyl stearate	152								CAS No		123-95-5					
Butyraldehyde	416	1	NI	1	R	2	0	0	1	0	3	3			DE	3
Butyraldehyde (all isomers)	157								CAS No		123-72-8					
Butyric acid	418	0	NI	0	R	2	0	0	0	0	3A	3			D	3
Butyric acid	158								CAS No		107-92-6					
Butyrolactone	420	0	NI	0	R	(3)	NI	1	(0)	0	0	1	C		D	3
gamma-Butyrolactone	360								CAS No		96-48-0					
Calcium alkyl (long chain) salicylate (overbased) in mineral oil (LOA)	70	0	NI	0	NR	2	NI	0	0	(1)	(1)	(1)	Ss		Fp	3
Calcium long-chain alkyl salicylate (C13+)	166								CAS No							
Calcium alkyl phenol sulphide,polyolefin phosphorusulphide mixture (LOA)	1435	NI	NI	NI	NR	4	NI	0	0	(0)	NI	NI			NI	NI
Calcium alkyl (C9) phenol sulphide/Polyolefin phosphorusulphide mixture	160								CAS No							
Calcium alkyl salicylate	2015	3	NI	3	NR	2	NI	0	0	(2)	2	2			Fp	2
Calcium alkyl (C10-C28) salicylate	3152								CAS No							
Calcium bromide (solutions)	427	Inorg	NI	0	Inorg	0	0	(0)	(0)	(2)	(1)	(2)			D	2
Drilling brines (containing calcium bromide)	308								CAS No		7789-41-5					
Calcium carbonate slurry	2016	Inorg	0	0	Inorg	0	NI	0	(0)	(0)	0	0			S	0
Calcium carbonate slurry	161								CAS No		471-34-1					
Calcium chloride solution	2519	Inorg	0	0	Inorg	0	0	1	0	(1)	1	1			D	0
Calcium chloride solution (less than 35%) (*)	4227								CAS No		10043-52-4					
Calcium hydroxide	431	Inorg	0	0	Inorg	2	NI	0	(0)	(2)	1	2			S	2
Calcium hydroxide slurry	162								CAS No		1305-62-0					
Calcium hypochlorite solutions containing 15% Ca(OCl)2 or more	432	Inorg	0	0	Inorg	5	NI	1	0	2	3A	3			D	3
Calcium hypochlorite solution (more than 15%)	164								CAS No		7778-54-3					
Calcium hypochlorite solutions containing less than 15% but more than 1.5% Ca(OCl)2	2073	Inorg	0	0	Inorg	(4)	NI	1	0	2	3A	3			D	3
Calcium hypochlorite solution (15% or less)	163								CAS No		7778-54-3					
Calcium lignosulphonate (52% solution in water)	2087	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Calcium lignosulphonate solutions	165								CAS No		8061-52-7					
Calcium long chain alkaryl sulphonate (C11-C50) (LOA)	1973	NI	0	0	NR	0	NI	0	0	(1)	1	1			FD	1
Calcium alkaryl sulphonate (C11-C50)	169								CAS No							

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Calcium long chain alkyl (C5-C10) phenate (LOA)	2106	0	NI	0	NR	2	NI	0	0	(0)	0	0			FD	1
Calcium long-chain alkyl (C5-C10) phenate	168									CAS No						
Calcium long chain alkyl (C11-C40) phenate (LOA)	2097	0	NI	0	NR	0	NI	0	0	(1)	1	1			Fp	2
Calcium long-chain alkyl (C11-C40) phenate	167									CAS No						
Calcium long chain alkyl phenate sulphide (C8-C40) (LOA)	1756	0	NI	0	NR	1	NI	0	0	(1)	1	1			Fp	2
Calcium long-chain alkyl phenate sulphide (C8-C40)	170									CAS No						
Calcium long-chain alkyl phenolic amine (C8-C40)	1728	NI	NI	NI	NR	0	NI	0	0	(1)	1	(1)			Fp	2
	171									CAS No						
Calcium long-chain alkyl (C18-C28) salicylate	2383	0	NI	0	NR	0	NI	0	0	(1)	1	0	Ss		Fp	3
Calcium long-chain alkyl (C18-C28) salicylate	3426									CAS No						
Calcium nitrate	1803	Inorg	0	0	Inorg	0	NI	0	(0)	(1)	1	1			D	1
Calcium nitrate solutions (50% or less)	172									CAS No	10124-37-5					
Calcium nitrate/ Magnesium nitrate/Potassium chloride solution	1734	Inorg	0	0	Inorg	1	0	0	(0)	(1)	(1)	1			D	1
Calcium nitrate/Magnesium nitrate/Potassium chloride solution	173									CAS No						
Camelina oil	2440	(0)	NI	(0)	(R)	(0)	(0)	(0)	(0)	(1)	(0)	(1)			Fp	2
Camelina oil	3767									CAS No	68956-68-3					
Camphor oil, white	1897	NI	NI	NI	NI	NI	NI	2	NI	(2)	1	NI		(T)	FE	2
Camphor oil	174									CAS No	8008-51-3					
Caprolactam	436	0	NI	0	R	1	0	1	1	2	1	2			D	3
epsilon-Caprolactam (molten or aqueous solutions)	310									CAS No	105-60-2					
Carbolic oil	437	(3)	3	(3)	(NR)	(3)	(1)	2	2	3	3	3	ATNCM		FED	3
Carbolic oil	176									CAS No						
Carbon disulphide	439	2	1	1	NR	3	NI	2	(3)	4	3A	3	RN		SD	3
Carbon disulphide	177									CAS No	75-15-0					
Cashew nut shell oil (untreated)	443	0	NI	0	R	0	NI	(0)	(0)	(2)	2	(2)	Ss		Fp	3
Cashew nut shell oil (untreated)	179									CAS No						
Castor oil (containing less than 10% free fatty acids)	2314	0	NI	0	R	(2)	NI	0	0	(1)	1	1			Fp	2
Castor oil	3044									CAS No						
Cesium Formate, drilling brines	2384	0	3	3	Inorg	2	NI	1	0	(2)	2	2			D	2
Cesium formate solution (*)	3421									CAS No	3495-36-1					

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Cetyl/Eicosyl methacrylate (mixture)	445	0	NI	0	(NR)	(0)	NI	0	(0)	(1)	(1)	(1)			Fp	2
Cetyl/Eicosyl methacrylate mixture	180								CAS No							
Chlorinated paraffins (C18 and above) with any level of chlorine	2024	0	4	4	NR	0	2	0	0	(1)	(1)	(1)	C		S	3
Chlorinated paraffins (C18+) with any level of chlorine	183								CAS No							
Chlorinated paraffins (C10-C13) with 60% chlorine or more	2021	5	5	5	NR	5	2	0	0	(1)	1	1	C		S	3
Chlorinated paraffins (C10-C13)	181								CAS No							
Chlorinated paraffins (C10- C13) with less than 60% chlorine	2020	5	5	5	NR	5	3	(0)	(0)	(1)	(1)	(1)	C		S	3
Chlorinated paraffins (C10-C13) (60% chlorine or less)	2832								CAS No							
Chlorinated paraffins (C14-C17) with less than 1% shorter chain length	2112	5	4	4	NR	6	3	0	0	(2)	2	2	C		S	3
Chlorinated paraffins (C14-C17) (with 50% chlorine or more, and less than 1% C13 or shorter chains)	182								CAS No							
Chloroacetic acid	450	0	NI	0	R	2	0	2	3	(4)	3C	3	A		D	3
Chloroacetic acid (80% or less)	184								CAS No		79-11-8					
Chlorobenzene	456	2	2	2	NR	3	0	1	0	2	2	0			S	2
Chlorobenzene	185								CAS No		108-90-7					
Chlorohydrins	463	0	NI	0	R	0	NI	(2)	(2)	(3)	(3A)	3	C		D	3
Chlorohydrins (crude)	187								CAS No		96-24-2					
N-(3-Chloro-2-hydroxypropyl) trimethylammonium chloride solution (75% or less)	2286	0	0	0	NR	1	NI	0	0	(2)	0	(2)	C		D	3
N-(3-Chloro-2-hydroxypropyl)trimethyl ammonium chloride solution (75% or less)	2579								CAS No							
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	1536	2	NI	2	NI	2	NI	1	0	2	1	1			S	2
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	62								CAS No							
Chloronitrobenzenes	467	2	2	2	NR	3	NI	2	2	2	1	1			S	2
o-Chloronitrobenzene	533								CAS No		25167-93-5					
1-(4-Chlorophenyl)-4,4-dimethyl-3-pentanone	1772	3	3	3	NR	3	NI	0	0	(1)	1	0			S	1
1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one	21								CAS No							
2-Chloropropionic acid	474	0	NI	0	R	1	NI	1	(3)	2	3A	3			D	3
2- or 3-Chloropropionic acid	36								CAS No		598-78-7					
3-Chloropropylene	478	1	1	1	R	3	NI	1	0	2	1	3	T		E	3
Allyl chloride	106								CAS No		107-05-1					
Chlorosulphonic acid	479	Inorg	0	0	Inorg	2	NI	(2)	(3)	4	3C	3			D	3
Chlorosulphonic acid	188								CAS No		7790-94-5					

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m-Chlorotoluene	481	3	NI	3	NR	2	NI	2	0	(2)	1	1			S	2
m-Chlorotoluene	426								CAS No		108-41-8					
o-Chlorotoluene	480	3	3	3	NR	3	1	0	0	0	1	1			S	1
Chlorotoluenes (mixed isomers)	189								CAS No		95-49-8					
o-Chlorotoluene	480	3	3	3	NR	3	1	0	0	0	1	1			S	1
o-Chlorotoluene	534								CAS No		95-49-8					
p-Chlorotoluene	482	3	3	3	NR	3	0	0	0	0	1	1			S	2
p-Chlorotoluene	551								CAS No		106-43-4					
Choline chloride, solutions	485	0	NI	0	R	1	NI	0	(0)	(0)	0	0			D	0
Choline chloride solutions	190								CAS No		67-48-1					
Choline hydroxide solution	2525	0	(0)	0	R	1	0	(0)	(0)	(3)	3	3			D	3
Choline hydroxide solution	4234								CAS No		123-41-1					
Cinnamaldehyde	2485	1	(2)	(2)	R	2	0	1	1	(2)	2	1	Ss		SD	2
Cinnamaldehyde	4061								CAS No		104-55-2					
Citric acid	493	0	NI	0	R	1	0	0	(0)	(3)	1	3			D	3
Citric acid (70% or less)	748								CAS No		77-92-9					
Citric juices	494	0	0	0	Inorg	0	0	0	0	0	0	0			D	0
Water	740								CAS No							
Clay	495	Inorg	0	0	Inorg	0	0	0	0	0	0	0			S	0
Clay slurry	191								CAS No							
Coal slurry	498	Inorg	0	0	Inorg	0	0	0	0	0	0	0			S	0
Coal slurry	192								CAS No							
Coal tar	499	(4)	4	4	NR	3	1	0	0	0	2	2	CMR	(T)	S	3
Coal tar	193								CAS No		8007-45-2					
Coal tar naphtha	500	3	NI	3	NR	3	NI	0	0	(1)	1	1	C	(T)	FE	3
Coal tar naphtha solvent	194								CAS No		8030-30-6					
Coal tar pitch (molten)	491	3	(3)	(3)	NR	(4)	(2)	0	0	(1)	1	0	CM		S	3
Coal tar pitch (molten) (*)	195								CAS No		65996-93-2					
Cobalt naphthenate in solvent naphtha	501	NI	NI	NI	NR	3	NI	0	(0)	(1)	NI	1	C		FE	3
Cobalt naphthenate in solvent naphtha	196								CAS No							

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Cocoa butter	2342	0	NI	0	R	0	NI	(0)	(0)	(1)	(0)	(1)			Fp	2		
Cocoa butter	3096								CAS No									
Coconut acid oil	2370	0	0	0	R	3	NI	(0)	(0)	(1)	(1)	(1)			Fp	2		
Coconut acid oil	3139								CAS No									
Coconut fatty acid distillate	2366	0	NI	0	R	(3)	NI	0	(0)	(1)	(1)	(1)			Fp	2		
Coconut fatty acid distillate	3130								CAS No									
Coconut oil	503	0	NI	0	R	1	NI	0	(0)	(1)	0	(1)			Fp	2		
Coconut oil	2772								CAS No								8001-31-8	
Coconut oil fatty acid	505	0	0	0	(R)	(3)	NI	0	(0)	(1)	(1)	(1)			Fp	2		
Coconut oil fatty acid	197								CAS No								61788-47-4	
Coconut oil fatty acid methyl ester	506	5	0	0	R	0	NI	(0)	(0)	(0)	(0)	(1)			Fp	2		
Coconut oil fatty acid methyl ester	198								CAS No								61788-59-8	
Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate	2524	0	NI	0	R	1	0	0	(0)	0	0	0			D	0		
Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate	4233								CAS No									
Copper salt of long chain(>C17) alkanolic acid (LOA)	2111	0	NI	0	(R)	2	NI	0	0	(0)	0	0			Fp	2		
Copper salt of long chain (C17+) alkanolic acid	2214								CAS No									
Corn oil	521	0	NI	0	R	(2)	NI	0	(0)	(1)	1	1			Fp	2		
Corn Oil	2781								CAS No								8001-30-7	
Cotton seed oil	523	0	NI	0	R	(2)	NI	(0)	(0)	(1)	0	1			Fp	2		
Cotton seed oil	2783								CAS No								8001-29-4	
Creosote (coal tar)	524	(4)	(4)	(4)	NR	4	(2)	1	0	2	2	1	CMRSs	(T)	S	3		
Creosote (coal tar) (amended)	199								CAS No								8001-58-9	
Creosote (wood tar)	525	NI	NI	NI	NR	5	NI	1	0	2	2	1	CM	(T)	SD	3		
Creosote (wood)	200								CAS No								8021-39-4	
Creosote (coal tar) C8-C22, MW 116-278	2514	NI	(3)	(3)	(NR)	4	1	1	0	(2)	2	1	CMRSs		S	3		
Creosote (coal tar) (C8-C22, MW 116-278)	4163								CAS No									
Cresol/Phenol/Xylenol mixture	2471	(2)	(2)	(2)	R	(3)	(1)	1	2	3	3B	3			SD	3		
Cresol/Phenol/Xylenol mixture	4021								CAS No									

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Cresols (mixed isomers)	527	2	2	2	R	3	(1)	2	2	4	3A	3		T	SD	3
Cresols (all isomers)	201								CAS No			1319-77-3				
Cresylic acids, dephenolized	1875	2	2	2	R	3	0	(2)	(2)	(3)	(3A)	(3)		(T)	S	3
Cresylic acid, dephenolized	202								CAS No							
Cresylic acid, sodium salt solution	1914	(2)	(2)	(2)	(R)	(3)	(0)	1	(1)	(3)	3	3	TCM	(T)	D	3
Cresylic acid, sodium salt solution	203								CAS No							
Crotonaldehyde	528	0	NI	0	NR	4	1	2	4	4	2	3			D	3
Crotonaldehyde	204								CAS No			4170-30-3				
Crude Piperazine	2331	0	NI	0	R	2	NI	(1)	(2)	(3)	3	3	SsSr		D	3
Crude Piperazine	2810								CAS No							
Crude Tall Oil	2357	4	NI	4	R	2	0	0	0	(0)	0	0	Ss		Fp	3
Tall oil, crude	3118								CAS No							
1,5,9-Cyclododecatriene	534	5	5	5	NR	4	NI	0	0	1	2	1	A		F	3
1,5,9-Cyclododecatriene	17								CAS No			4904-61-4				
Cycloheptane	535	4	NI	4	(NR)	4	NI	(0)	0	(1)	(0)	(1)			FE	2
Cycloheptane	205								CAS No			291-64-5				
Cyclohexane	536	3	3	3	NR	3	NI	0	0	1	0	1			E	2
Cyclohexane	206								CAS No			110-82-7				
Cyclohexane-1,2-dicarboxylic acid, diisononyl ester	2472	0	3	3	R	0	0	0	0	(1)	1	0			Fp	2
Cyclohexane-1,2-dicarboxylic acid, diisononyl ester	3915								CAS No			166412-78-8				
Cyclohexane oxidation products, sodium salts solution	2458	0	NI	0	Inorg	1	0	0	(0)	(0)	0	0			D	0
Cyclohexane oxidation products, sodium salts solution	3739								CAS No							
Cyclohexanol	537	1	NI	1	R	2	NI	0	0	0	2	2			Fp	2
Cyclohexanol	207								CAS No			108-93-0				
Cyclohexanone	539	0	1	1	R	1	0	1	1	1	2	2			FED	2
Cyclohexanone	208								CAS No			108-94-1				
Cyclohexanone/Cyclohexanol mixture	1436	1	1	1	R	2	NI	1	1	1	2	2			FED	2
Cyclohexanone, Cyclohexanol mixture	209								CAS No							
Cyclohexyl acetate	541	2	NI	2	(R)	(2)	NI	0	0	(2)	2	1			FED	2
Cyclohexyl acetate	210								CAS No			622-45-7				

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Cyclohexylamine	542	1	NI	1	R	2	NI	2	2	3	3	3			D	3
Cyclohexylamine	211								CAS No		108-91-8					
1,3-Cyclopentadiene dimer (molten)	545	3	3	3	NR	3	NI	2	0	2	2	2			Fp	2
1,3-Cyclopentadiene dimer (molten)	11								CAS No		77-73-6					
Cyclopentane	546	3	NI	3	NR	3	NI	(0)	(0)	0	1	(1)			E	2
Cyclopentane	212								CAS No		287-92-3					
Cyclopentene	547	2	NI	2	(R)	3	NI	1	1	0	(2)	(0)	A		E	2
Cyclopentene	213								CAS No		142-29-0					
Decahydronaphthalene	551	4	4	4	NR	3	NI	0	0	2	2	1			F	1
Decahydronaphthalene	214								CAS No		91-17-8					
Decane	554	5	NI	5	R	0	0	0	0	0	1	0			F	1
Decane	2620								CAS No		124-18-5					
Decanoic acid	555	4	NI	4	R	4	1	0	0	(2)	2	2			Fp	2
Decanoic acid	215								CAS No		334-48-5					
1-Decene	558	5	NI	5	R	4	2	0	0	0	2	0	A		F	3
Decene	216								CAS No		872-05-9					
Decyl acetate	1767	4	NI	4	NI	NI	NI	0	0	(1)	(1)	(1)			F	1
Decyl acetate	217								CAS No		112-17-4					
Decyl acrylate	559	5	NI	5	(R)	5	NI	0	0	(2)	2	1			Fp	2
Decyl acrylate	218								CAS No		2156-96-9					
Decyloxytetrahydrothiophene dioxide	1859	3	NI	3	NR	4	NI	0	0	(1)	1	0			Fp	2
Decyloxytetrahydrothiophene dioxide	220								CAS No							
Dextrose solution	562	0	0	0	R	0	NI	0	0	0	0	(0)			D	0
Glucose solution	361								CAS No		50-99-7					
Dextrose solution	562	0	0	0	R	0	NI	0	0	0	0	(0)			D	0
Dextrose solution	221								CAS No		50-99-7					
Diacetone alcohol	563	0	NI	0	R	1	0	0	0	(2)	2	2			D	2
Diacetone alcohol	226								CAS No		123-42-2					
Dialkyldiphenylamines (LOA)	1852	5	NI	5	NR	1	0	0	0	(0)	0	0			FD	0
Dialkyl (C8-C9) diphenylamines	2255								CAS No							

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Dialkyl (C9 - C10) phthalates	2359	(0)	(0)	(0)	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(1)			Fp	2
Dialkyl (C9 - C10) phthalates	3121									CAS No						
Dialkyl phthalates C9-C13	566	(0)	(4)	(4)	(NR)	(0)	(2)	(0)	(0)	(1)	(1)	(1)	R		Fp	3
Dialkyl (C7-C13) phthalates	227									CAS No						
2,6-Diaminohexanoic acid phosphonate mixed salts solution (#)	2469	1	NI	1	NR	1	(0)	(1)	(1)	(3)	(3)	(3)			D	3
2,6-Diaminohexanoic acid phosphonate mixed salts solution	3989									CAS No						
Diammonium hydrogen phosphate	98	0	0	0	Inorg	1	NI	0	0	(0)	(1)	(1)			D	1
Ammonium hydrogen phosphate solution	117									CAS No	7783-28-0					
Dibromomethane	574	1	NI	1	NR	(2)	NI	1	0	0	(2)	(2)			SD	2
Dibromomethane	228									CAS No	74-95-3					
Di-n-butylamine	577	2	NI	2	R	3	NI	2	2	3	3	3			FD	3
Dibutylamine	231									CAS No	111-92-2					
Di-butyl ether	578	3	3	3	NR	2	NI	0	0	0	1	1			FE	2
n-Butyl ether	475									CAS No	142-96-1					
Dibutyl hydrogen phosphonate	1857	1	NI	1	NI	2	NI	0	0	(3)	3	3			F	3
Dibutyl hydrogen phosphonate	229									CAS No	1809-19-4					
2,4-Di-tert-butyl phenol	2083	5	4	4	NR	4	NI	NI	NI	NI	NI	NI			NI	NI
2,4-Di-tert-butylphenol	2339									CAS No	96-76-4					
2,6-Di-tert-butyl phenol	2082	4	NI	4	NR	4	NI	0	0	(1)	1	1			Fp	2
2,6-Di-tert-butylphenol	2250									CAS No	128-39-2					
Di-n-butyl phthalate	582	4	4	4	R	4	1	0	0	1	0	1	R		S	3
Dibutyl phthalate	230									CAS No	84-74-2					
Dibutyl terephthalate	2430	5	(3)	(3)	R	4	2	0	0	(0)	0	0			S	0
Dibutyl terephthalate	3596									CAS No						
Dichlorobenzene (all isomers)	333	3	4	4	NR	3	1	1	0	1	(2)	2	CMR	T	S	3
Dichlorobenzene (all isomers)	232									CAS No						
3,4-Dichlorobut-1-ene	2079	2	2	2	NR	3	NI	1	0	2	2	3			S	3
3,4-Dichloro-1-butene	56									CAS No	760-23-6					
1,1-Dichloroethane	590	1	NI	1	NR	1	NI	1	(1)	0	2	2			SD	2
1,1-Dichloroethane	4									CAS No	75-34-3					

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1,2-Dichloroethane	591	1	1	1	NR	2	0	1	0	2	1	2	C		SD	3
Ethylene dichloride	330								CAS No		107-06-2					
1,6-Dichlorohexane	593	3	NI	3	NR	3	NI	0	(0)	(0)	0	0			S	0
1,6-Dichlorohexane	19								CAS No		2163-00-0					
Dichloromethane	594	1	2	2	NR	1	0	1	0	0	2	2	C		SD	3
Dichloromethane	234								CAS No		75-09-2					
2,4-Dichlorophenol	596	3	2	2	NR	3	2	3	2	3	3	3		T	S	3
2,4-Dichlorophenol	30								CAS No		120-83-2					
2,4-dichlorophenoxyacetic acid, choline salt	2523	2	2	2	NR	1	1	1	0	0	1	2			D	2
2,4-dichlorophenoxyacetic acid, choline salt	4232								CAS No							
2,4-Dichlorophenoxyacetic acid, diethanolamine salt, solution	599	0	1	1	R	2	NI	1	0	(3)	1	3		(T)	D	3
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	32								CAS No							
2,4-Dichlorophenoxyacetic acid, dimethylamine salt, 70 % or less solution	600	0	1	1	R	3	NI	1	0	(3)	1	3		(T)	D	3
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)	33								CAS No							
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt soln.	602	0	NI	0	R	2	NI	1	0	(3)	(1)	3		(T)	D	3
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	34								CAS No							
1,1-Dichloropropane	605	2	1	1	NR	2	1	0	0	1	1	1			SD	1
1,1-Dichloropropane	5								CAS No		78-99-9					
1,2-Dichloropropane	606	2	1	1	NR	2	0	1	0	2	2	2			SD	2
1,2-Dichloropropane	9								CAS No		78-87-5					
1,3-Dichloropropane	607	2	1	1	NR	2	1	0	NI	NI	NI	NI			SD	NI
1,3-Dichloropropane	12								CAS No		142-28-9					
Dichloropropane and dichloropropene, mixture	608	(2)	(1)	(1)	(NR)	(4)	(1)	2	1	2	3	3	CSs		SD	3
Dichloropropene/Dichloropropane mixtures	235								CAS No		8003-19-8					
1,3-Dichloropropene	612	1	NI	1	NR	4	1	2	1	2	3	3	CSs		SD	3
1,3-Dichloropropene	13								CAS No		542-75-6					
2,2-Dichloropropionic acid	609	2	2	2	NR	2	NI	1	0	(3)	3	3			D	3
2,2-Dichloropropionic acid	28								CAS No		75-99-0					
Di-(2-chloro-iso-propyl) ether	615	2	2	2	NR	2	NI	2	0	2	0	2			SD	2
2,2'-Dichloroisopropyl ether	25								CAS No		108-60-1					

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Dicyclopentadiene(80-90%)/Co-dimers(10-20%), mixtures	2389	2	3	3	NR	3	0	2	0	3	2	2	AR		FED	3
Dicyclopentadiene, Resin Grade, 81-89%	3559								CAS No							
Diethanolamine	620	0	NI	0	R	1	0	1	0	0	2	3	T		D	3
Diethanolamine	236								CAS No			111-42-2				
Diethylamine	621	0	NI	0	R	2	NI	1	2	3	3C	3			DE	3
Diethylamine	240								CAS No			109-89-7				
2,6-Diethylaniline	1437	3	3	3	NR	2	NI	1	1	(2)	1	2			FD	2
2,6-Diethylaniline	35								CAS No			579-66-8				
Diethyl benzene (mixed isomers)	624	4	4	4	NR	3	NI	0	(0)	(2)	2	1			F	2
Diethylbenzene	242								CAS No			25340-17-4				
Di-(2-ethylbutyl) phthalate	625	5	NI	5	R	0	2	0	0	(1)	1	(1)	R		Fp	3
Di-(2-ethylbutyl) phthalate	2750								CAS No			84-75-3				
Diethylene glycol	628	0	NI	0	R	0	0	1	0	2	1	1			D	2
Diethylene glycol	243								CAS No			111-46-6				
Diethylene glycol di-n-butyl ether	629	2	NI	2	NI	1	NI	0	0	(1)	1	1			FD	1
Diethylene glycol dibutyl ether	244								CAS No			112-73-2				
Diethylene glycol diethyl ether	630	0	NI	0	NR	0	NI	1	0	(2)	(2)	2			D	2
Diethylene glycol diethyl ether	245								CAS No			112-36-7				
Diethylene glycol initiated polyoxypropylene diamine	2353	0	NI	0	NR	2	NI	0	0	(3)	3B	(3)			D	3
Diethylene glycol initiated polyoxypropylene diamine	3113								CAS No							
Diethylene glycol initiated polyoxypropylene diamine	2353	0	NI	0	NR	2	NI	0	0	(3)	3B	(3)			D	3
Polyetheramine	2946								CAS No							
Diethylene glycol phthalate	1438	2	NI	2	NR	1	NI	0	0	(2)	(1)	2			S	2
Diethylene glycol phthalate	247								CAS No							
Diethylene triamine	638	0	1	1	(R)	2	NI	1	3	3	3A	3	Ss		FD	3
Diethylenetriamine	248								CAS No			111-40-0				
Diethylenetriamine pentaacetic acid, pentapotassium salt solution (40%) (**)	2466	1	NI	1	NR	2	NI	NI	NI	NI	NI	NI			D	NI
Diethylenetriamine pentaacetic acid, pentapotassium salt (40% solution)	3929								CAS No							
Diethylenetriamine pentaacetic acid, pentasodium salt (40% solution in water)	2076	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Diethylenetriaminepentaacetic acid, pentasodium salt solution	249								CAS No							

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Diethylenetriamine pentamethylene phosphonic acid, pentasodium salt solution (47 %) (**)	2467	0	NI	0	R	2	NI	NI	NI	NI	NI	NI			D	NI			
Diethylenetriamine pentamethylene phosphonic acid, pentasodium salt solution	3930								CAS No										
Diethyl ethanolamine	622	0	NI	0	NR	3	NI	1	1	2	3	3			D	3			
Diethylaminoethanol	241								CAS No								100-37-8		
Diethyl ether	640	0	1	1	NR	0	NI	1	0	0	1	1			DE	2			
Diethyl ether (*)	237								CAS No								60-29-7		
Di-(2-ethylhexyl) adipate	641	0	2	2	R	4	2	0	0	0	1	1	R		Fp	3			
Di-(2-ethylhexyl) adipate	222								CAS No								103-23-1		
Di-(2-ethylhexyl) phosphoric acid	643	(2)	1	1	NR	2	NI	0	1	(2)	2	2			Fp	2			
Di-(2-ethylhexyl) phosphoric acid	223								CAS No								298-07-7		
Di-(2-ethylhexyl) phthalate	642	0	4	4	R	0	0	0	0	1	1	1	R		Fp	3			
Di-(2-ethylhexyl) phthalate	2751								CAS No								117-81-7		
Diethyl phthalate	648	3	3	3	R	2	0	0	0	(1)	1	1			S	1			
Diethyl phthalate	238								CAS No								84-66-2		
Diethyl sulphate	649	1	NI	1	R	(2)	NI	1	2	3	2	3	CM		SD	3			
Diethyl sulphate	239								CAS No								64-67-5		
Diglycidyl ether of Bisphenol A	653	3	NI	3	NR	4	NI	0	0	(2)	1	2	Ss		S	2			
Diglycidyl ether of bisphenol A	250								CAS No								1675-54-3		
Diglycidyl ether of Bisphenol F	728	0	NI	0	NR	3	NI	0	(0)	(2)	1	(2)	SsR		S	3			
Diglycidyl ether of bisphenol F	251								CAS No								55492-52-9		
Diheptyl phthalate	655	0	(4)	(4)	R	0	NI	0	0	(1)	1	1			Fp	3			
Diheptyl phthalate	252								CAS No								3648-21-3		
Di-n-hexyl adipate	656	5	NI	5	(NR)	5	0	0	0	(1)	0	1			FE	1			
Di-n-hexyl adipate	224								CAS No								110-33-8		
Di-hexyl phthalate	2125	5	NI	5	R	0	2	0	0	(1)	1	1	R		Fp	3			
Dihexyl phthalate	253								CAS No								84-75-3		
1,4-Dihydro-9,10-dihydroxy anthracene disodium salt (soln.)	657	1	NI	1	NI	1	NI	0	NI	NI	NI	NI			D	NI			
1,4-Dihydro-9,10-dihydroxyanthracene, disodium salt solution	15								CAS No										
Diisobutene	575	4	4	4	NR	3	NI	0	0	0	1	0			FE	2			
Diisobutylene	257								CAS No								11071-47-9		

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Diisobutylamine	576	(2)	NI	(2)	(R)	(3)	NI	2	(2)	2	(3)	(3)			FED	3
Diisobutylamine	256								CAS No							
Diisobutyl ketone	579	3	NI	3	R	2	NI	0	0	2	2	2			F	2
Diisobutyl ketone	254								CAS No							
Diisobutyl phthalate	581	4	(4)	4	R	(4)	1	0	0	1	0	0	R		S	3
Diisobutyl phthalate	255								CAS No							
Diisodecyl phthalate	619	0	0	0	(R)	0	(0)	0	0	(1)	0	1			Fp	2
Diisodecyl phthalate	3119								CAS No							
Diisoheptyl phthalate	2391	0	(4)	(4)	R	0	0	0	0	(1)	1	1	R		Fp	3
Diisoheptyl phthalate	3561								CAS No							
Diisononyl adipate	690	0	NI	0	R	0	0	0	0	(1)	1	1			Fp	2
Diisononyl adipate	258								CAS No							
Diisononyl phthalate	691	0	0	0	R	0	0	0	0	(0)	0	0			Fp	2
Diisononyl phthalate	3120								CAS No							
Diisooctyl phthalate	693	0	4	4	(R)	0	0	0	0	(1)	1	0			Fp	2
Diisooctyl phthalate	259								CAS No							
Diisopropanolamine	703	0	NI	0	NR	1	NI	0	0	0	2	3			FD	3
Diisopropanolamine	260								CAS No							
Diisopropylamine	705	1	NI	1	NR	2	0	1	1	2	3	3			ED	3
Diisopropylamine	261								CAS No							
Diisopropyl benzene (mixed isomers)	2220	5	4	4	NR	4	NI	0	0	2	2	1		(T)	F	2
Diisopropylbenzene (all isomers)	262								CAS No							
1,3-Diisopropylbenzene	706	5	4	4	NR	4	NI	0	0	2	2	1			F	2
1,3-Diisopropyl benzene	2626								CAS No							
Diisopropyl ether	711	1	NI	1	NR	2	NI	0	0	0	1	2			E	2
Isopropyl ether	406								CAS No							
Diisopropyl naphthalene, mixed isomers	712	5	4	4	NR	3	NI	0	0	(1)	1	1			Fp	2
Diisopropyl naphthalene	263								CAS No							
Dimethyl acetamide	658	0	NI	0	R	1	NI	0	0	2	1	2			D	2
N,N-Dimethylacetamide	2730								CAS No							

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Dimethyl acetamide	658	0	NI	0	R	1	NI	0	0	2	1	2			D	2
N,N-Dimethylacetamide solution (40% or less)	466								CAS No		127-19-5					
Dimethyl adipate	659	1	NI	1	(R)	4	NI	0	0	(0)	1	1			SD	2
Dimethyl adipate	264								CAS No		627-93-0					
Dimethylamine (40-50% aq.sol.)	661	0	NI	0	R	3	0	2	0	2	3B	3	Ss	NT	DE	3
Dimethylamine solution (45% or less)	270								CAS No		124-40-3					
Dimethylamine (40-50% aq.sol.)	661	0	NI	0	R	3	0	2	0	2	3B	3	Ss	NT	DE	3
Dimethylamine solution (greater than 45% but not greater than 55%)	271								CAS No		124-40-3					
Dimethylamine (40-50% aq.sol.)	661	0	NI	0	R	3	0	2	0	2	3B	3	Ss	NT	DE	3
Dimethylamine solution (greater than 55% but not greater than 65%)	272								CAS No		124-40-3					
N,N-Dimethyl cyclohexylamine	665	2	NI	2	NR	2	NI	1	2	3	3C	3			FD	3
N,N-Dimethylcyclohexylamine	467								CAS No		98-94-2					
Dimethyl disulphide	1616	1	NI	1	NR	3	2	2	0	2	1	1			SD	2
Dimethyl disulphide	2504								CAS No		624-92-0					
N,N-Dimethyldodecylamine	2126	3	NI	3	R	4	NI	1	(1)	(3)	3	3			F	3
N,N-Dimethyldodecylamine	468								CAS No		112-18-5					
Dimethylethanolamine	667	0	NI	0	R	2	NI	1	1	2	3	3			D	3
Dimethylethanolamine	273								CAS No		108-01-0					
Dimethyl formamide	676	0	0	0	R	1	0	0	1	2	1	2	R		D	3
Dimethylformamide	274								CAS No		68-12-2					
Dimethyl glutarate	670	0	NI	0	R	3	NI	0	0	2	3	2	A		SD	3
Dimethyl glutarate	265								CAS No		26717-67-9					
Dimethyl hydrogen phosphite	673	0	NI	0	NR	2	NI	1	0	0	1	1			D	1
Dimethyl hydrogen phosphite	266								CAS No		868-89-9					
2,2-Dimethyloctanoic acid	675	3	NI	3	R	4	1	0	0	(2)	2	2			Fp	2
Dimethyl octanoic acid	267								CAS No		29662-90-6					
Dimethyl phthalate	678	2	2	2	R	2	0	0	0	(1)	0	1			SD	1
Dimethyl phthalate	268								CAS No		131-11-3					
2,2-Dimethylpropane-1,3-diol	679	0	0	0	NR	0	0	0	0	0	2	2			FD	2
2,2-Dimethylpropane-1,3-diol (molten or solution)	29								CAS No		126-30-7					

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Dimethyl succinate	681	0	NI	0	NI	2	NI	0	0	0	0	2			SD	2
Dimethyl succinate	269								CAS No		106-65-0					
Dinitrotoluene	688	2	2	2	NR	4	2	2	(2)	(2)	1	0	CMR		S	3
Dinitrotoluene (molten)	276								CAS No		25321-14-6					
Dinonyl phthalate	689	0	NI	0	R	0	0	0	0	(1)	1	1			Fp	2
Dinonyl phthalate	2993								CAS No		84-76-4					
Di-n-octyl phthalate	692	0	(4)	(4)	(R)	0	0	0	0	(1)	1	(1)			Fp	2
Diocetyl phthalate	277								CAS No		117-84-0					
1,4-Dioxane	682	0	0	0	NR	0	0	0	0	0	0	2	C		D	3
1,4-Dioxane	16								CAS No		123-91-1					
Dipentene	686	4	NI	4	NR	2	NI	0	0	(2)	2	2	Ss		F	3
Dipentene	278								CAS No		138-86-3					
Diphenyl	694	3	4	4	R	4	1	0	0	(1)	0	1			S	1
Diphenyl	279								CAS No		92-52-4					
Diphenylamine (molten)	2186	3	3	3	NR	3	1	0	0	(1)	1	1			S	1
Diphenylamine (molten)	285								CAS No							
Diphenylamine, reaction product with 2,4,4-trimethylpentene	1500	NI	1	1	NR	3	NI	0	0	(1)	1	1			Fp	2
Diphenylamine, reaction product with 2,2,4-Trimethylpentene	286								CAS No							
Diphenylamines, alkylated	1770	5	NI	5	NR	(3)	NI	0	0	(1)	(1)	(1)			F	2
Diphenylamines, alkylated	287								CAS No							
Diphenyl/Diphenyl ether (mixtures)	698	NI	NI	4	NR	4	1	0	0	(1)	1	1		(T)	S	1
Diphenyl/Diphenyl ether mixtures	283								CAS No		8004-13-5					
Diphenyl ether	699	4	4	4	NR	4	NI	0	0	0	1	1		T	S	1
Diphenyl ether	281								CAS No		101-84-8					
Diphenyl ether/ Biphenyl phenyl ether mixtures	702	5	NI	5	NR	4	NI	0	0	0	1	1		(T)	S	1
Diphenyl ether/Diphenyl phenyl ether mixture	282								CAS No							
Diphenylmethane-4,4'-diisocyanate (#)	700	5	2	2	NR	0	0	0	0	3	2	2	SsSr		S	3
Diphenylmethane diisocyanate	288								CAS No		101-68-8					
Diphenylol propane-epichlorohydrin resins	2237	3	NI	3	NR	4	NI	0	0	(2)	1	2			S	2
Diphenylol propane-epichlorohydrin resins	290								CAS No							

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Di-n-propylamine	704	1	NI	1	NR	3	NI	2	2	2	3C	3			FED	3
Di-n-propylamine	225								CAS No		142-84-7					
Dipropylene glycol	707	0	1	1	R	0	NI	0	0	0	0	1			D	1
Dipropylene glycol	291								CAS No		25265-71-8					
Dipropylene glycol dibenzoate	708	3	NI	3	R	3	NI	0	0	0	0	0			S	0
Dipropylene glycol dibenzoate	2431								CAS No		94-51-9					
Di-n-propyl phthalate	713	3	NI	3	(R)	3	NI	(0)	(0)	(1)	(1)	(1)	R		S	3
Di-n-propyl phthalate	2752								CAS No		131-16-8					
Distilled Resin Oil, DRO	2299	(3)	NI	(3)	(NR)	(3)	NI	0	0	(2)	2	1	MN		FE	3
Resin oil, distilled	2958								CAS No							
Dithiocarbamate ester (C7-C35)	2185	NI	2	2	NR	4	NI	0	0	(1)	1	1			S	1
Dithiocarbamate ester (C7-C35)	2371								CAS No							
Ditridecyl adipate	2351	0	NI	0	NR	0	NI	0	0	(2)	2	1			Fp	2
Ditridecyl adipate	293								CAS No							
Ditridecyl phthalate	714	0	(0)	0	NR	0	(0)	0	0	(1)	1	(1)			Fp	2
Ditridecyl phthalate	2994								CAS No		119-06-2					
Diundecyl phthalate	715	0	(0)	0	NR	0	0	0	0	(1)	1	1			Fp	2
Diundecyl phthalate	294								CAS No		3648-20-2					
Dodecane	718	5	NI	5	(R)	0	NI	0	0	(1)	(1)	(0)			Fp	2
Dodecane (all isomers)	295								CAS No		112-40-3					
tert-Dodecanethiol	2233	5	4	4	NR	0	0	0	0	(2)	2	1	Ss		F	3
tert-Dodecanethiol	2418								CAS No							
1-Dodecanol	719	5	2	2	R	4	1	0	0	(1)	1	(1)			Fp	2
Dodecyl alcohol	298								CAS No		112-53-8					
1-Dodecene (#)	2473	5	NI	5	R	0	NI	0	0	1	1	(0)	A		F	3
1-Dodecene	3990								CAS No		112-41-4					
Dodecene (all isomers) (#)	720	5	NI	5	NR	4	NI	0	0	1	1	0	A		F	3
Dodecene (all isomers)	296								CAS No							
2-Dodecenyl succinic acid, dipotassium salt, solution	727	4	NI	4	NR	1	NI	(0)	(0)	NI	NI	NI			D	NI
Dodecenylsuccinic acid, dipotassium salt solution	297								CAS No		57195-28-5					

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Dodecylamine/Tetradecylamine mixture	721	3	NI	3	R	4	NI	1	0	(3)	3	3			F	3		
Dodecylamine/Tetradecylamine mixture	303								CAS No									
Dodecyl benzene	126	0	NI	0	NR	0	3	0	0	(2)	(2)	(1)			F	2		
Dodecylbenzene	304								CAS No								123-01-3	
Dodecyl benzene sulphonic acid (contains 1.5% Sulphuric acid)	1739	NI	NI	3	R	3	1	1	(1)	(2)	(1)	(1)			D	2		
Alkyl (C11-C17) benzene sulphonic acid	101								CAS No									
Dodecyl diphenyl oxide disulphonate (solns.)	723	(5)	NI	5	NR	4	1	1	0	(3)	1	3			D	3		
Dodecyl diphenyl ether disulphonate solution	299								CAS No									
Dodecyl hydroxypropyl sulphide (LOA)	1861	5	NI	5	NI	4	NI	0	0	(0)	0	0			FD	0		
Dodecyl hydroxypropyl sulphide	2252								CAS No									
n-Dodecyl mercaptan	2462	5	3	3	NR	5	NI	0	0	(3)	3	(3)	Ss		F	3		
n-Dodecyl mercaptan	3743								CAS No									
Dodecyl/octadecyl methacrylate (mixtures)	2116	(5)	NI	(5)	(NR)	(0)	NI	0	0	(1)	1	(1)			Fp	2		
Dodecyl/Octadecyl methacrylate mixture	1717								CAS No									
Dodecyl/pentadecyl methacrylate (mixture)	724	(5)	NI	(5)	(NR)	(0)	NI	0	(0)	(1)	(1)	(1)			Fp	2		
Dodecyl/Pentadecyl methacrylate mixture	302								CAS No									
Dodecyl phenol	725	0	4	4	NI	4	(3)	0	0	(3)	3	2	R		Fp	3		
Dodecyl phenol	301								CAS No								27193-86-8	
Dodecyl-, Tetradecyl-, Hexadecyl-dimethylamine mixture	2248	3	NI	3	R	5	2	1	(1)	(3)	3C	3			F	3		
Alkyl (C12+) dimethylamine	2485								CAS No									
Dodecylxylene	1763	0	NI	0	NI	0	NI	0	0	(1)	1	1			Fp	2		
Dodecyl Xylene	306								CAS No									
Epichlorohydrin	731	0	0	0	R	2	NI	2	2	3	3A	3	CSs		D	3		
Epichlorohydrin	309								CAS No								106-89-8	
Ethanol	732	0	NI	0	R	0	NI	0	0	0	1	2			D	2		
Ethyl alcohol	315								CAS No								64-17-5	
Ethanolamine	733	0	NI	0	R	2	0	1	1	3	3A	3			D	3		
Ethanolamine	311								CAS No								141-43-5	
Ethanoltriazine (aqueous solution)	2411	(0)	NI	(0)	R	3	NI	1	0	4	0	2	Ss		D	3		
1,3,5-Hexahydrotriethanol-1,3,5-triazine solution	3687								CAS No								4719-04-4	

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Ethoxylated long chain (>C16)alkyloxyalkanamine (LOA)	2103	5	NI	5	NR	1	NI	0	0	(3)	3	(3)			Fp	3		
Ethoxylated long chain (C16+) alkyloxyalkylamine	2203								CAS No									
Ethoxylated tallow amine (>95%)	2313	0	NI	0	NR	4	NI	1	(1)	3	2	3	Ss		Fp	3		
Ethoxylated tallow amine (> 95%)	2959								CAS No									
Ethoxylated tallow amine, glycol mixture	2252	2	NI	2	NR	6	NI	1	0	3	2	3			D	3		
Ethoxylated tallow amine, glycol mixture	2476								CAS No									
Ethyl acetate	735	0	2	2	R	1	0	0	0	1	0	1			DE	2		
Ethyl acetate	312								CAS No			141-78-6						
Ethyl acetoacetate	736	0	0	0	R	1	NI	0	0	(1)	1	1			D	1		
Ethyl acetoacetate	313								CAS No			141-97-9						
Ethyl acrylate	734	1	NI	1	R	3	1	1	2	2	2	2	CSs	T	ED	3		
Ethyl acrylate	314								CAS No			140-88-5						
Ethylamine	1016	0	NI	0	R	2	NI	2	2	1	3	3			GD	3		
Ethylamine (*)	322								CAS No			75-04-7						
Ethylamine solutions (72% or less)	2219	NI	NI	0	R	2	NI	2	2	1	3	3			DE	3		
Ethylamine solutions (72% or less)	323								CAS No									
Ethyl amyl ketone	1784	2	NI	2	NI	2	NI	0	0	(2)	2	NI			FD	2		
Ethyl amyl ketone	316								CAS No			106-68-3						
Ethylbenzene	740	3	2	2	R	3	(1)	0	0	0	2	2	T		FE	3		
Ethylbenzene	324								CAS No			100-41-4						
N-Ethyl butylamine	745	1	NI	1	NI	NI	NI	1	1	2	3	3			FED	3		
N-Ethylbutylamine	477								CAS No			13360-63-9						
Ethyl tert-butyl ether (#)	2085	1	NI	1	NR	2	0	0	0	(1)	1	0			E	1		
Ethyl tert-butyl ether (amended)	320								CAS No			637-92-3						
Ethyl butyrate	748	1	NI	1	NI	2	NI	0	0	(2)	2	NI			FED	2		
Ethyl butyrate	317								CAS No			105-54-4						
Ethyl cyclohexane	751	4	4	4	NR	3	NI	(0)	(0)	(1)	(1)	(1)			FE	2		
Ethylcyclohexane	325								CAS No			1678-91-7						
N-Ethyl cyclohexylamine	752	2	NI	2	NI	(3)	NI	1	2	2	3	3			FED	3		
N-Ethylcyclohexylamine	478								CAS No			5459-93-8						

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S-Ethyl dipropylthiocarbamate	2081	3	2	2	NI	3	NI	1	1	2	2	(2)	N		F	3
S-Ethyl dipropylthiocarbamate	2302								CAS No			759-94-4				
Ethylene carbonate	755	0	NI	0	R	0	NI	0	0	(2)	1	2			SD	2
Ethylene carbonate	326								CAS No			96-49-1				
Ethylene chlorohydrin	756	0	0	0	R	3	NI	2	3	4	2	3			D	3
Ethylene chlorohydrin	327								CAS No			107-07-3				
Ethylene cyanohydrin	757	0	0	0	NI	2	NI	1	0	(2)	1	2			D	2
Ethylene cyanohydrin	328								CAS No			109-78-4				
Ethylene diamine	758	0	1	1	R	3	1	1	2	1	3	3	SsSr		D	3
Ethylenediamine	343								CAS No			107-15-3				
Ethylene diamine, tetra acetic acid, di- and tetra-sodium salt	759	0	NI	0	NR	2	0	1	(1)	(2)	1	2			D	2
Ethylenediaminetetraacetic acid, tetrasodium salt solution	344								CAS No			64-02-8				
Ethylene dibromide	760	1	2	2	NR	3	NI	2	2	2	3	3	CRT		SD	3
Ethylene dibromide	329								CAS No			106-93-4				
Ethylene glycol	761	0	NI	0	R	0	NI	1	(1)	(1)	0	0			D	1
Ethylene glycol	331								CAS No			107-21-1				
Ethylene glycol acrylate	869	0	NI	0	R	4	NI	1	3	3	3	3	MSs		D	3
2-Hydroxyethyl acrylate	51								CAS No			818-61-1				
Ethylene glycol butyl ether acetate (#)	764	1	NI	1	R	2	NI	1	1	(1)	1	1			FD	1
Ethylene glycol butyl ether acetate	334								CAS No			112-07-2				
Ethylene glycol diacetate	765	0	NI	0	NI	2	NI	0	0	(1)	1	NI			D	1
Ethylene glycol diacetate	335								CAS No			111-55-7				
Ethylene glycol ethyl ether acetate	767	0	NI	0	R	2	0	1	0	1	1	1	R		D	3
2-Ethoxyethyl acetate	41								CAS No			111-15-9				
Ethylene glycol methyl butyl ether	772	1	NI	1	NI	1	NI	NI	NI	NI	NI	NI			D	NI
Ethylene glycol methyl butyl ether	336								CAS No			13343-98-1				
Ethylene glycol methyl ether acetate	773	0	NI	0	R	2	NI	0	0	(0)	(1)	1	R		D	3
Ethylene glycol methyl ether acetate	337								CAS No			110-49-6				
Ethylene glycol monoacetate	762	0	NI	0	R	2	NI	0	0	(3)	NI	(3)			D	3
Ethylene glycol acetate	333								CAS No			542-59-6				

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Ethylene glycol monoalkyl ethers	2268	0	NI	0	R	2	NI	1	2	2	1	2			D	2		
Ethylene glycol monoalkyl ethers	338								CAS No									
Ethylene glycol monoalkyl ethers (31% or less)/Ethylene glycol (25% or less)/Ethoxylated alcohols (15% or less)/Ethoxylated imidazolines (10% or less)/2-mercaptoethanol (5% or less) solution	2543	(3)	NI	(3)	(R)	(3)	(0)	(1)	(2)	(3)	(2)	(3)	TSs		D	3		
	4283								CAS No									
Ethylene glycol monoethyl ether	766	0	NI	0	R	0	0	0	0	1	2	2			D	3		
2-Ethoxyethanol	40								CAS No								110-80-5	
Ethylene glycol phenyl ether	775	1	NI	1	R	1	0	1	0	0	1	2			SD	2		
Ethylene glycol phenyl ether	339								CAS No								122-99-6	
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether, mixture	1740	NI	NI	1	R	1	NI	1	0	(2)	(2)	(2)			SD	2		
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture	340								CAS No									
Ethylene glycol (>75%)/Sodium alkyl carboxylates/borax mixture (#)	2477	NI	(1)	(1)	R	1	NI	1	(1)	(2)	(1)	(1)	R		D	3		
Ethylene glycol (>75%)/Sodium alkyl carboxylates/borax mixture	4006								CAS No									
Ethylene glycol (>85%)/Sodium alkyl carboxylates mixture (#)	2475	NI	(1)	(1)	R	1	NI	1	(1)	(1)	0	0			D	1		
Ethylene glycol (>85%)/Sodium alkyl carboxylates mixture	4005								CAS No									
Ethylene oxide	77	NI	NI	NI	NI	NI	NI	1	(1)	3	3	3	CMR		GD	3		
Ethylene oxide	2744								CAS No								75-21-8	
Ethylene-propylene copolymer	1508	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	(0)	(0)			NI	0		
Propylene-Butylene copolymer	633								CAS No									
Ethylene vinyl acetate copolymer (emulsion)	779	0	1	1	NR	0	0	0	(0)	(2)	2	0			S	2		
Ethylene-vinyl acetate copolymer (emulsion)	342								CAS No									
Ethyl 3-ethoxypropionate	1439	1	NI	1	NR	2	NI	0	0	0	1	1			FD	1		
Ethyl-3-ethoxypropionate	321								CAS No								763-69-9	
2-Ethylhexanoic acid	776	2	NI	2	R	2	NI	0	0	(2)	2	2			FD	3		
2-Ethylhexanoic acid	45								CAS No								149-57-5	
2-Ethylhexyl acrylate	782	3	NI	3	R	2	NI	0	0	(2)	2	2	Ss		F	3		
2-Ethylhexyl acrylate	46								CAS No								103-11-7	
2-Ethylhexyl esters of fatty acids	2221	0	NI	0	R	1	NI	0	(0)	(0)	1	0			F	1		
	2578								CAS No									
2-Ethyl-2-(hydroxymethyl)propane-1,3-diol C8-C10 ester (LOA)	2054	0	NI	0	R	0	NI	0	(0)	(0)	0	(0)			Fp	2		
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester	42								CAS No									

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5-Ethylidene-2-norbornene	783	3	3	3	NR	3	0	0	0	2	1	2			FE	2
Ethylidene norbornene	345									CAS No	16219-75-3					
Ethyl isoamyl ketone	737	NI	NI	NI	NI	NI	NI	0	0	(1)	1	(2)			FD	2
Ethyl isoamyl ketone	2618									CAS No	541-85-5					
Ethyl methacrylate	785	1	NI	1	R	2	0	0	0	0	(2)	(2)	Ss		FE	2
Ethyl methacrylate	318									CAS No	97-63-2					
N-Ethyl-2-methylallylamine	2228	0	NI	0	NR	2	NI	3	2	2	3A	3			D	3
N-Ethylmethylallylamine	2417									CAS No						
o-Ethyl phenol	788	2	NI	2	NI	(2)	NI	1	NI	NI	NI	NI			S	NI
o-Ethylphenol	535									CAS No	90-00-6					
Ethyl propionate	790	1	NI	1	NI	2	0	0	(1)	(2)	2	2			ED	2
Ethyl propionate	319									CAS No	105-37-3					
2-Ethyl-3-propylacrolein	791	2	NI	2	R	3	NI	0	0	1	3	3			F	3
2-Ethyl-3-propylacrolein	43									CAS No	645-62-5					
Ethyl toluene (all isomers)	2297	3	NI	3	NI	(3)	NI	0	0	0	2	2			F	2
Ethyl toluene	346									CAS No						
Fast Pyrolysis Bio-oil	2545	(4)	NI	(4)	NR	2	0	0	(0)	(3)	3A	(3)	ASs		Fp	3
	4285									CAS No	1207435-39-9					
Fatty acid methyl esters	2362	0	NI	0	R	2	NI	0	(0)	(2)	2	2			Fp	2
Fatty acid methyl esters (m)	3125									CAS No						
Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester	2253	0	NI	0	R	1	NI	0	0	(1)	1	0			Fp	2
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester	1914									CAS No						
Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester	2253	0	NI	0	R	1	NI	0	0	(1)	1	0			Fp	2
Fatty acid (C8-C16) ethyl hexyl esters	2759									CAS No						
Fatty acids, linear, C8-C18 saturated with C18 unsaturated	2260	(4)	NI	(4)	R	(4)	(1)	(0)	(0)	(1)	(1)	(1)			Fp	2
Fatty acids, (C8-C18)	2779									CAS No						
Fatty acids, linear C12+ saturated with C12+ unsaturated	2261	5	0	0	(R)	0	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Fatty acids, (C12+)	2780									CAS No						
Fatty acids saturated, C8-C10	2324	0	NI	0	R	4	NI	0	0	(3)	3C	3			Fp	3
Fatty acids, (C8-C10)	3079									CAS No						

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Fatty acids, unsaturated, linear, C16+	2259	0	0	0	R	(0)	NI	0	0	(0)	0	0			Fp	2
Fatty acids, (C16+)	2778									CAS No						
Fatty acids, C18 unsaturated, reaction products with triethanolamine, dimethyl sulphate-quaternized	2548	(0)	NI	(0)	R	(2)	(0)	0	0	(2)	0	2			S	2
	4289									CAS No						
Fatty alcohols, linear, (C12+)	2326	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(1)	1	1			Fp	2
Alcohols (C12+), primary, linear	3081									CAS No						
Fatty alcohols, linear, (C16+)	2327	(5)	(2)	(2)	(R)	(0)	(1)	0	0	(1)	1	1			Fp	2
Alcohols, linear (C16+)	3082									CAS No						
Ferric chloride	339	Inorg	5	5	Inorg	2	0	1	(0)	(3)	2	3			D	3
Ferric chloride solutions	348									CAS No	7705-08-0					
Ferric hydroxyethyl ethylene diamine triacetic acid, tri- sodium salt, solution	796	NI	NI	NI	NI	NI	NI	0	0	(1)	(0)	1			D	1
Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution	349									CAS No						
Ferric nitrate/nitric acid solution	337	Inorg	(5)	(5)	Inorg	(2)	(0)	0	(0)	(3)	3	3			D	3
Ferric nitrate/Nitric acid solution	350									CAS No						
Fish by-products (fresh)	2499	NI	NI	(0)	NR	1	(0)	(0)	(0)	(0)	(0)	(0)			FD	1
Fish by-products (fresh) (*)	3893									CAS No						
Fish oil (containing less than 10% free fatty acids)	2316	0	NI	0	R	2	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Fish oil	3046									CAS No						
Fish protein concentrate (containing 4% or less formic acid)	2502	NI	NI	(0)	R	1	(0)	(0)	(0)	(0)	(1)	(1)			D	1
Fish protein concentrate (containing 4% or less formic acid)	4090									CAS No						
Fish silage (containing 3% or less formic acid with antioxidant)	2500	NI	NI	(0)	R	0	(0)	(0)	(0)	(0)	(1)	(1)			FD	1
Fish silage (containing 3% or less formic acid with antioxidant)	3892									CAS No						
Fish silage protein concentrate (containing 4% or less formic acid)	2487	NI	0	0	R	2	NI	(0)	(0)	(0)	(1)	(1)			D	2
Fish silage protein concentrate (containing 4% or less formic acid)	4062									CAS No						
Fish solubles	1509	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	(0)	(0)			NI	NI
Fish solubles (water-based fish meal extract)	351									CAS No						
Fluorosilicic acid	806	Inorg	0	0	Inorg	2	NI	2	(2)	4	3	3			D	3
Fluorosilicic acid	2716									CAS No	16961-83-4					
Fluorosilicic acid solution (20-30%)	2240	Inorg	2	2	Inorg	2	0	(1)	(1)	(3)	3B	3	T		D	3
Fluorosilicic acid solution (20-30%)	353									CAS No						

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Formaldehyde (37%-50% solution)	807	0	NI	0	R	2	NI	2	2	3	3	3	CMSs	NT	D	3
Formaldehyde solutions (45% or less)	354								CAS No		50-00-0					
Formaldehyde, polymer with isobutyleneated phenol	2377	NI	NI	NI	NR	NI	NI	NI	NI	NI	NI	NI			Fp	NI
Formaldehyde, polymer with isobutyleneated phenol	1203								CAS No							
Formamide	808	0	NI	0	NR	1	NI	0	0	1	1	2	R		D	3
Formamide	355								CAS No		75-12-7					
Formic acid	809	0	NI	0	R	2	NI	1	(1)	2	3C	3			D	3
Formic acid (85% or less acid)	356								CAS No		64-18-6					
Formic acid	809	0	NI	0	R	2	NI	1	(1)	2	3C	3			D	3
Formic acid (over 85%)	3830								CAS No		64-18-6					
Formic acid mixture (containing up to 18% propionic acid and up to 25% sodium formate)	2408	0	NI	0	R	1	NI	(0)	(0)	(2)	(2)	(3)			D	3
Formic acid mixture (containing up to 18% propionic acid and up to 25% sodium formate)	3684								CAS No							
Fumaric adduct of rosin (water dispersion)	810	3	NI	3	NR	3	NI	0	(0)	(3)	0	3	Ss		D	3
Fumaric adduct of rosin, water dispersion	357								CAS No		65997-04-8					
Furfural	812	0	NI	0	R	2	1	2	(2)	3	2	2	C		D	3
Furfural	358								CAS No		98-01-1					
Furfuryl alcohol	813	0	NI	0	R	1	NI	2	2	3	2	2			D	2
Furfuryl alcohol	359								CAS No		98-00-0					
Glucitol/glycerol blend propoxylated (containing 10% or more amines)	2441	2	NI	2	NR	1	1	1	0	(2)	(1)	(1)			D	2
Glucitol/glycerol blend propoxylated (containing 10% or more amines)	3919								CAS No							
Glucitol/glycerol blend, propoxylated (containing less than 10% amines)	2368	0	NI	0	NR	1	NI	1	0	(2)	(1)	(1)			SD	2
Glucitol/glycerol blend propoxylated (containing less than 10% amines)	3074								CAS No							
Glycerine	814	0	NI	0	R	0	0	0	0	(1)	0	1			D	1
Glycerine	363								CAS No		56-81-5					
Glycerine (83%)/ Dioxane-dimethanol (17%) mixture	1743	NI	NI	NI	R	1	NI	0	(0)	(1)	(0)	1			D	1
Glycerine (83%), Dioxanedimethanol (17%) mixture	364								CAS No							
Glycerol ethoxylated	2360	0	NI	0	R	0	NI	0	0	(0)	0	0			D	0
Glycerol ethoxylated	3123								CAS No							
Glycerol monooleate	1898	0	0	0	R	0	NI	0	(0)	(1)	1	1			Fp	2
Glycerol monooleate	365								CAS No		25496-72-4					

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Glycerol propoxylated	2346	0	NI	0	NR	1	NI	1	0	(2)	1	0			D	2
Glycerol propoxylated	3110								CAS No							
Glycerol, propoxylated and ethoxylated	2276	0	NI	0	NR	1	0	0	0	0	0	0			SD	2
Glycerol, propoxylated and ethoxylated	2872								CAS No							
Glycerol/sorbitol blend, propoxylated and ethoxylated	2372	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI			NI	NI
Glycerol/sorbitol blend, propoxylated and ethoxylated	3136								CAS No							
Glycerol/sucrose blend, propoxylated and ethoxylated	2361	0	NI	0	NR	1	NI	0	0	0	0	0			SD	0
Glycerol/sucrose blend propoxylated and ethoxylated	3124								CAS No							
Glyceryl triacetate	816	0	NI	0	R	1	0	1	0	0	0	1			D	1
Glyceryl triacetate	367								CAS No		102-76-1					
Glycidyl ester of C10 trialkyl acetic acid	441	3	NI	3	NR	3	NI	0	0	(2)	2	1			F	2
Glycidyl ester of C10 trialkylacetic acid	368								CAS No							
Glycine, Sodium salt, solution	817	0	NI	0	NI	0	NI	0	(0)	(1)	(0)	(1)			D	1
Glycine, sodium salt solution	369								CAS No		56-40-6					
Glycolic acid	2218	0	0	0	R	1	NI	1	(1)	2	3C	3			D	3
Glycolic acid solution (70% or less)	2539								CAS No							
Glyoxal solutions (40% or less)	84	0	NI	0	R	1	NI	0	0	2	2	3	MSsSr		D	3
Glyoxal solution (40% or less)	370								CAS No		107-22-2					
Glyoxylic acid	1535	0	NI	0	R	2	0	0	0	(3)	0	3	Ss		D	3
Glyoxylic acid solution (50 % or less)	371								CAS No		298-12-4					
Glyphosate solution, without surfactant	1765	0	0	0	NR	3	0	0	0	(3)	0	3			D	3
Glyphosate solution (not containing surfactant)	2204								CAS No		1071-83-6					
Grape Seed Oil	2442	(0)	NI	(0)	(R)	(0)	(0)	(0)	(0)	(1)	(0)	(1)			Fp	2
Grape Seed Oil	3643								CAS No		8024-22-4					
Groundnut oil	820	0	NI	0	R	(2)	NI	(0)	(0)	(0)	(0)	0			Fp	2
Groundnut oil	2769								CAS No		8002-03-7					
Heptane	827	4	NI	4	R	4	NI	0	0	0	(1)	1	A		E	2
Heptane (all isomers)	372								CAS No		142-82-5					
Heptanoic acid	831	2	NI	2	R	1	NI	0	0	1	3B	(3)			FD	3
n-Heptanoic acid	479								CAS No		111-14-8					

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Heptanol (all isomers)	2223	2	NI	2	R	(2)	NI	0	0	(2)	(1)	(2)			FD	2
Heptanol (all isomers) (d)	373									CAS No						
1-Heptanol	828	2	NI	2	R	2	0	1	0	2	(2)	(2)			FD	2
1-Heptanol	2688									CAS No	111-70-6					
Heptene (all isomers)	2225	3	NI	3	NI	2	NI	(0)	(0)	(0)	(2)	(1)			E	2
Heptene (all isomers)	374									CAS No						
1-Heptene	832	3	NI	3	NI	2	NI	(0)	(0)	(0)	(2)	(1)			E	2
1-Heptene	2685									CAS No						
Heptyl acetate	833	3	NI	3	(R)	(3)	NI	0	0	(2)	1	2			F	2
Heptyl acetate	375									CAS No	112-06-1					
Hexadecyl naphthalene/dihexadecyl naphthalene mixture	2159	0	NI	0	NR	0	NI	0	0	(1)	1	1			Fp	2
1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture	2373									CAS No						
Hexahydro-1,3,5-trimethyl-1,3,5-triazine solution (45% or less)	2489	(2)	NI	(2)	R	3	NI	1	(1)	(3)	3A	3	Ss		D	3
Hexahydro-1,3,5-trimethyl-1,3,5-triazine solution (45% or less)	4123									CAS No	108-74-7					
Hexamethylene diamine	845	0	NI	0	R	2	NI	1	1	(3)	3A	3	R		D	3
Hexamethylenediamine (molten)	378									CAS No	124-09-4					
Hexamethylene diamine	845	0	NI	0	R	2	NI	1	1	(3)	3A	3	R		D	3
Hexamethylenediamine	377									CAS No	124-09-4					
Hexamethylene diamine	845	0	NI	0	R	2	NI	1	1	(3)	3A	3	R		D	3
Hexamethylenediamine solution	380									CAS No	124-09-4					
Hexamethylene diamine adipate, 50% in water	846	0	NI	0	R	1	NI	0	(0)	(0)	0	0			D	0
Hexamethylenediamine adipate (50% in water)	379									CAS No	3323-53-3					
Hexamethylene diisocyanate	2142	3	0	0	NR	2	NI	1	2	4	3	3	SsSr		S	3
Hexamethylene diisocyanate	18									CAS No	822-06-0					
Hexamethylene glycol	847	0	NI	0	R	1	NI	0	0	(1)	0	1			D	1
Hexamethylene glycol	376									CAS No	629-11-8					
Hexamethyleneimine	848	1	NI	1	NI	2	NI	3	1	2	2	2			FED	2
Hexamethyleneimine	381									CAS No	111-49-9					
Hexamethylene tetramine (40% solution)	849	0	NI	0	R	0	NI	0	0	(1)	0	1	Ss		D	2
Hexamethylenetetramine solutions	382									CAS No	100-97-0					

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Hexane	850	3	NI	3	R	4	NI	0	0	0	2	2	NA		E	2
Hexane	2683								CAS No		100-54-3					
Hexane	850	3	NI	3	R	4	NI	0	0	0	2	2	NA		E	2
Hexane (all isomers)	383								CAS No		100-54-3					
1,6-Hexanediol, distillation overheads	2143	4	NI	4	NR	2	NI	0	0	2	1	2			FED	2
1,6-Hexanediol, distillation overheads	2641								CAS No							
Hexanoic acid	853	2	NI	2	R	2	NI	0	0	(3)	(3)	3			FD	3
Hexanoic acid	384								CAS No		142-62-1					
1-Hexanol	854	1	0	0	(R)	2	NI	1	0	(3)	1	3			FD	3
Hexanol	385								CAS No		111-27-3					
Hexene (all isomers)	2224	3	NI	3	R	3	NI	(0)	(0)	(1)	(1)	(1)			E	2
Hexene (all isomers)	386								CAS No							
1-Hexene	855	3	NI	3	R	3	NI	0	0	0	1	1			E	2
1-Hexene	2681								CAS No		592-41-6					
2-Hexene (mixed isomers)	856	3	NI	3	R	3	NI	(0)	(0)	0	(1)	(1)			E	2
2-Hexene (mixed isomers)	2682								CAS No							
Hexyl acetate	857	2	NI	2	NI	3	NI	0	0	(1)	1	1			FE	2
Hexyl acetate	387								CAS No		142-92-7					
sec-Hexyl acetate	858	2	NI	2	NI	3	NI	0	0	0	1	(2)			FED	2
Methylamyl acetate	456								CAS No		108-84-9					
Hexylene glycol	859	0	NI	0	R	0	0	0	0	(3)	2	3			D	2
Hexylene glycol	388								CAS No		107-41-5					
Hydrocarbon wax	2278	(5)	NI	(5)	NR	0	0	(0)	(0)	(0)	(0)	(0)	CT		Fp	3
Hydrocarbon wax	741								CAS No							
Hydrochloric acid	864	Inorg	0	0	Inorg	1	NI	1	1	3	3C	3			DE	3
Hydrochloric acid (*)	389								CAS No		7647-01-0					
Hydrogenated Starch Hydrolysate	2347	0	NI	0	R	0	NI	0	0	(0)	0	0			D	0
Hydrogenated starch hydrolysate	3077								CAS No							
Hydrogen peroxide, more than 60%	867	Inorg	0	0	Inorg	3	NI	1	0	2	3	3			D	3
Hydrogen peroxide solutions (over 60% but not over 70% by mass)	390								CAS No		7722-84-1					

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Hydrogen peroxide, more than 60%	867	Inorg	0	0	Inorg	3	NI	1	0	2	3	3			D	3
Hydrogen peroxide, more than 60%	2689								CAS No		7722-84-1					
Hydrogen peroxide, more than 8% but not more than 60%	2231	Inorg	0	0	Inorg	3	NI	1	0	(2)	3	3			D	3
Hydrogen peroxide, more than 8% but not more than 60%	2690								CAS No							
Hydrogen peroxide, more than 8% but not more than 60%	2231	Inorg	0	0	Inorg	3	NI	1	0	(2)	3	3			D	3
Hydrogen peroxide solutions (over 8% but not over 60% by mass)	391								CAS No							
N-(2-Hydroxyethyl) ethylene diamine triacetic acid, trisodium salt (solution)	870	0	NI	0	NI	1	NI	0	0	(1)	1	1	R		D	3
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	470								CAS No		150-30-0					
[[[2-hydroxyethyl)imino]dimethylene]bisphosphonic acid, sodium salt	2493	0	NI	0	NR	1	NI	0	0	(0)	0	1			D	1
	4127								CAS No		22036-78-8					
2-Hydroxy-4-(methylthio) butanoic acid	871	1	NI	1	R	1	NI	0	0	(3)	1	3			D	3
2-Hydroxy-4-(methylthio)butanoic acid	49								CAS No		583-91-5					
Icosa(oxypropane-2,3-diyl)s	2092	NI	NI	NI	NI	NI	NI	0	(0)	(2)	2	(2)			Fp	2
Icosa(oxypropane-2,3-diyl)s	392								CAS No							
Icosa(oxypropane-2,3-diyl)s	2092	NI	NI	NI	NI	NI	NI	0	(0)	(2)	2	(2)			Fp	2
Icosa(oxypropane-2,3-diyl)s	2691								CAS No							
Illipe oil (containing less than 10% free fatty acids)	2304	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Illipe oil	3034								CAS No							
Imidazolium compounds, 1-benzyl-4,5-dihydro-1-(hydroxyethyl)-2-norcoco alkyl, chlorides	2505	(0)	NI	(0)	NR	4	NI	NI	NI	NI	(2)	(3)			Fp	3
Imidazolium compounds, 1-benzyl-4,5-dihydro-1-(hydroxyethyl)-2-norcoco alkyl, chlorides	4157								CAS No		61791-52-4					
Interesterified Mixed Vegetable Oils	2355	0	NI	0	R	(0)	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Interesterified vegetable oils	3115								CAS No							
Isoalkanes (C16-C18)	2526	0	NI	0	R	1	NI	(0)	(0)	(0)	(0)	(0)	A		F	1
Isoalkanes (C16-C18)	4235								CAS No							
Isobutanol	382	0	NI	0	R	1	0	0	0	1	2	3			D	3
Isobutyl alcohol	397								CAS No		78-83-1					
Isobutyl formate	405	1	NI	1	NI	1	NI	0	(0)	0	(1)	(2)			E	2
Isobutyl formate	398								CAS No		542-55-2					
Isobutyl methacrylate	408	2	NI	2	NR	1	NI	0	0	0	2	2	Ss		FED	2
Isobutyl methacrylate	2673								CAS No		97-86-9					

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Isobutyric acid	419	0	NI	0	R	2	NI	2	2	(3)	3	3			E	NI
Isobutyric acid	2459								CAS No		79-31-2					
Isodecanol	557	3	2	2	R	3	NI	0	0	0	2	1			Fp	2
Decyl alcohol (all isomers)	219								CAS No		25339-17-7					
Isononanol	1059	3	NI	3	NR	3	1	0	0	(2)	2	2			Fp	2
Nonyl alcohol (all isomers)	510								CAS No		2430-22-0					
Isononylaldehyde	2300	3	NI	3	NR	(3)	NI	0	0	(2)	2	1			F	2
Isononylaldehyde	2754								CAS No							
Isooctaldehyde	1071	2	NI	2	NI	3	NI	0	0	(1)	1	1			F	1
Octyl aldehydes	542								CAS No		63885-09-6					
Isooctanol	1076	3	NI	3	R	2	0	1	0	(2)	2	(2)			F	2
iso-Octanol	2675								CAS No		26952-21-6					
Isooctylamine	1081	2	NI	2	NI	3	NI	1	1	3	3	3			FD	3
2-Ethylhexylamine	48								CAS No		104-75-6					
Isopentene	1113	2	NI	2	NI	2	NI	(0)	(0)	(0)	(0)	(1)			E	2
iso-Pentene	2677								CAS No		563-45-1					
Isophorone	879	1	1	1	R	2	0	1	1	(2)	1	2			FD	2
Isophorone	399								CAS No		78-59-1					
Isophorone diamine	880	0	0	0	NR	2	0	1	(1)	(3)	3	3	Ss		D	3
Isophoronediamine	401								CAS No		2855-13-2					
Isophorone diisocyanate	881	1	NI	1	NR	3	NI	0	0	3	3	3	SsSr		S	3
Isophorone diisocyanate	400								CAS No		4098-71-9					
Isoprene	882	2	2	2	NR	3	1	0	0	0	1	2	CM		E	3
Isoprene	402								CAS No		78-79-5					
Isopropanol	1181	0	NI	0	R	0	0	0	0	0	1	2			D	2
Isopropyl alcohol	405								CAS No		67-63-0					
Isopropanolamine	1182	0	NI	0	R	2	NI	0	1	0	3	3			D	3
Isopropanolamine	403								CAS No		78-96-6					
Isopropyl acetate	1192	1	NI	1	R	1	NI	0	0	0	1	2			ED	2
Isopropyl acetate	404								CAS No		108-21-4					

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Isopropylamine	1195	0	NI	0	R	2	NI	2	2	1	3	3			DE	3
Isopropylamine	407								CAS No		75-31-0					
Isopropylamine (70%)	2350	0	NI	0	R	2	NI	2	2	1	3	3			DE	3
Isopropylamine (70% or less) solution	395								CAS No							
Isopropyl benzene	1197	3	2	2	R	3	NI	0	0	0	2	1			FE	2
Propylbenzene (all isomers)	623								CAS No		98-82-8					
Isopropyl benzene	1197	3	2	2	R	3	NI	0	0	0	2	1			FE	2
Isopropylbenzene	2687								CAS No		98-82-8					
Isopropyl cyclohexane	1199	4	NI	4	(NR)	(3)	NI	(0)	(0)	(1)	(0)	(1)			FE	2
Isopropylcyclohexane	408								CAS No		696-29-7					
Isopropyltoluenes	549	4	4	4	(NR)	3	NI	0	(0)	1	2	(1)			FE	2
p-Cymene	552								CAS No		99-87-6					
Isovaleraldehyde	1390	1	NI	1	R	3	NI	0	0	0	2	2			D	2
Valeraldehyde (all isomers)	731								CAS No		590-86-3					
Jatropha oil	2402	0	NI	(0)	(R)	(2)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Jatropha oil	3637								CAS No							
Kaolin slurry	883	Inorg	NI	0	Inorg	0	NI	0	0	0	0	0			S	0
Kaolin slurry	409								CAS No		1332-58-7					
Lactic acid	886	0	NI	0	R	1	NI	0	0	(3)	2	3			D	3
Lactic acid	410								CAS No		50-21-5					
Lactonitrile solution (80% or less)	887	0	NI	0	R	4	NI	3	4	(4)	NI	NI			D	3
Lactonitrile solution (80% or less)	411								CAS No		78-97-7					
Lard (containing less than 10% free fatty acids)	2317	0	NI	0	R	0	NI	0	(0)	(1)	0	1			Fp	2
Lard	3047								CAS No							
Latex, ammonia inhibited	889	0	NI	0	NI	(2)	NI	0	0	(1)	0	1			D	1
Latex, ammonia (1% or less)- inhibited	413								CAS No							
Lauric acid	891	4	NI	4	R	4	1	0	(0)	(2)	1	2			Fp	2
Lauric acid	415								CAS No		143-07-7					
Lauroamidopropyl betaine solution (#)	2479	(4)	(2)	(2)	R	(4)	(1)	(0)	(0)	(3)	(1)	(3)			D	3
	4055								CAS No		4292-10-8					

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Lauryl methacrylate	893	0	2	2	R	0	0	0	(0)	(1)	1	1			F	1
Dodecyl methacrylate	300								CAS No		142-90-5					
Lecithin (soybeans)	2146	0	NI	0	R	0	NI	0	0	(0)	0	(0)			SD	0
Lecithin	417								CAS No							
Lignin sulphonic acid, salt solution	34	0	NI	0	(NR)	(0)	NI	0	(0)	(0)	(0)	(0)			D	0
Ligninsulphonic acid, sodium salt solution	419								CAS No							
Linear alkyl (C12-16) propoxyamine ethoxylate	2380	3	0	3	NR	4	NI	1	(1)	(3)	3	(3)			D	3
Alkyl(C12-C16) propoxyamine ethoxylate	3423								CAS No							
Linseed oil (containing less than 4% free fatty acids)	2318	0	NI	0	R	(2)	NI	0	(0)	(1)	0	(1)			Fp	2
Linseed oil	3048								CAS No							
Long chain alkaryl polyether (C11-C20) (LOA)	1982	(4)	NI	(4)	NR	3	(1)	0	0	(2)	0	2			Fp	2
Long-chain alkaryl polyether (C11-C20)	421								CAS No							
Long chain alkaryl sulphonic acid (C16-C60) (LOA)	1966	0	NI	0	(NR)	0	NI	0	0	(2)	(1)	2			Fp	2
Long-chain alkaryl sulphonic acid (C16-C60)	424								CAS No							
Long-chain alkylphenate/Phenol sulphide mixture	1754	(0)	NI	(0)	(NR)	0	NI	0	0	(2)	2	2			Fp	2
Long-chain alkylphenate/Phenol sulphide mixture	425								CAS No							
Long chain alkylphenol (C14-C18) (#)	2478	(0)	NI	(0)	NR	(0)	(0)	(0)	(0)	(2)	(2)	(0)			Fp	2
Long-chain alkylphenol (C14-C18)	4029								CAS No							
Long chain alkylphenol (C18-C30) (#)	2476	(0)	NI	(0)	(NR)	(1)	(0)	(0)	(0)	(2)	(2)	(0)			Fp	2
Long-chain alkylphenol (C18-C30)	4040								CAS No							
Long-chain polyetheramine in alkyl(C2-C4)benzenes	1457	NI	NI	NI	NR	2	NI	0	0	(2)	2	2			Fp	2
	422								CAS No							
Lubrizol polyolefin anhydride	1865	0	NI	0	NR	1	NI	0	0	(2)	1	(2)			Fp	2
Polyolefin anhydride	605								CAS No							
L-Lysine solution (50% or less)	2199	0	0	0	R	1	0	0	0	0	1	NI			D	1
L-Lysine solution (60% or less)	2306								CAS No							
Magnesium alkyl (long chain) salicylate (overbased) in mineral oil (LOA)	71	(0)	NI	(0)	NR	(2)	NI	0	0	(1)	(1)	(1)	Ss		S	2
Magnesium long-chain alkyl salicylate (C11+)	429								CAS No							
Magnesium chloride	915	Inorg	0	0	Inorg	1	0	0	0	(0)	0	0			D	0
Magnesium chloride solution	427								CAS No		7786-30-3					

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Magnesium hydroxide slurry	916	Inorg	0	0	Inorg	0	NI	0	0	(1)	(0)	1			S	1
Magnesium hydroxide slurry	428									CAS No			1309-42-8			
Magnesium lignosulphonate solutions	2356	(0)	NI	(0)	(NR)	(0)	NI	0	0	(0)	(0)	(0)			D	0
Ligninsulphonic acid, magnesium salt solution	3116									CAS No						
Magnesium long chain alkaryl sulphonate (C11-C50) (LOA)	1967	0	NI	0	NR	0	NI	0	0	(2)	1	2			Fp	2
Magnesium long-chain alkaryl sulphonate (C11-C50)	430									CAS No						
Maleic acid/Acrylic acid/Ethenylsulphonic acid/Ethenylphosphonic acid polymer, sodium salt in aqueous/ethylene glycol solution	2528	0	NI	0	(NR)	0	0	(0)	(0)	(3)	(2)	(3)	Ss		D	3
	4237									CAS No						
Maleic acid/allyl sulphonic acid copolymer with phosphonate groups, partial sodium salt (aqueous solution)	2412	0	NI	0	NR	0	NI	(0)	(0)	(0)	(0)	(0)			D	0
Maleic acid/allyl sulphonic acid copolymer with phosphonate groups, partial sodium salt (aqueous solution)	3688									CAS No						
Maleic anhydride	921	1	NI	1	R	2	0	1	2	(3)	3	3	SsSr		D	3
Maleic anhydride	431									CAS No			108-31-6			
Maleic anhydride - sodium allylsulphonate copolymer (aqueous solution)	2410	0	NI	0	NR	1	NI	0	0	(0)	(0)	0			D	0
Maleic anhydride-sodium allylsulphonate copolymer solution	3686									CAS No						
Maltitol Syrup	2348	0	NI	0	R	0	NI	0	0	(0)	0	0			D	0
Maltitol solution	3078									CAS No						
Mango kernel oil (containing less than 10% free fatty acids)	2305	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Mango kernel oil	3035									CAS No						
2-Mercaptobenzothiazol	925	2	1	1	NR	4	2	0	0	(0)	0	0	Ss		S	2
Mercaptobenzothiazol, sodium salt solution	432									CAS No			149-30-4			
2-Mercaptoethanol	2495	0	NI	0	NR	1	NI	2	2	2	2	3	SsT		D	3
2-Mercaptoethanol	4129									CAS No			60-24-2			
Mesityl oxide	946	1	NI	1	R	(1)	NI	1	0	2	2	2			D	2
Mesityl oxide	433									CAS No			141-79-7			
Metam-sodium (ISO)	202	0	NI	0	NR	4	NI	1	2	(2)	2	1	Ss		D	2
Metam sodium solution	434									CAS No			137-42-8			
Methacrylic acid-alkoxypoly (alkylene oxide) methacrylate co-polymer sodium salt (45% or less solution)	2288	NI	0	0	NR	1	NI	0	(0)	(1)	1	0			D	1
Methacrylic acid - alkoxy poly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)	2819									CAS No						

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Methacrylic acid, inhibited	948	0	NI	0	R	2	0	1	2	2	3	3			D	3
Methacrylic acid	435								CAS No		79-41-4					
Methacrylic resin in 1,2 Dichloroethane soln.	2046	1	1	1	NR	2	0	(1)	(0)	(2)	(1)	(2)	C		SD	3
Methacrylic resin in ethylene dichloride	436								CAS No							
Methacrylonitrile	949	0	NI	0	R	2	0	2	2	3	1	1	Ss	NT	ED	3
Methacrylonitrile	437								CAS No		126-98-7					
Methanol	951	0	NI	0	R	0	0	(2)	(2)	(2)	2	2	T		DE	3
Methyl alcohol (*)	441								CAS No		67-56-1					
(2-Methoxymethylethoxy)propanols	2452	0	NI	0	R	0	(0)	0	0	(0)	0	0			D	0
	3870								CAS No							
Methyl acetate	954	0	NI	0	R	1	NI	0	0	0	1	2			DE	2
Methyl acetate	438								CAS No		79-20-9					
Methyl acetoacetate	335	0	NI	0	R	1	NI	0	0	(2)	1	2			D	2
Methyl acetoacetate	439								CAS No		105-45-3					
Methyl acrylate	955	0	NI	0	R	3	NI	1	1	2	2	3	MSs		D	3
Methyl acrylate	440								CAS No		96-33-3					
Methylamine solution 42% or less	957	0	NI	0	R	2	NI	2	(2)	3	3	3	M	NT	DE	3
Methylamine solutions (42% or less)	455								CAS No		74-89-5					
Methyl amyl alcohol	958	1	NI	1	R	1	NI	1	0	2	1	3			FED	3
Methylamyl alcohol	457								CAS No		108-11-2					
Methyl amyl ketone	959	1	NI	1	NI	1	NI	1	0	0	1	1			FED	2
Methyl amyl ketone	442								CAS No		110-43-0					
N-Methyl aniline	961	1	NI	1	(NR)	3	1	1	1	(2)	(1)	1			FD	2
N-Methylaniline	3107								CAS No		100-61-8					
alpha-Methylbenzyl alcohol with acetophenone (15% or less)	2399	1	NI	1	(R)	(1)	NI	(1)	(0)	(3)	(2)	(3)	R		Fp	3
alpha-Methylbenzyl alcohol with acetophenone (15% or less)	3634								CAS No		98-85-1					
2-Methyl-2-butanol	964	1	1	1	(R)	(1)	0	1	1	1	3	2			D	3
tert-Amyl alcohol	685								CAS No		75-85-4					
3-Methyl-1-butanol	965	1	1	1	(R)	1	0	1	0	(2)	2	2			FED	2
Amyl alcohol, primary	126								CAS No		123-51-3					

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3-Methyl-1-butanol	965	1	1	1	(R)	1	0	1	0	(2)	2	2			FED	2
Isoamyl alcohol	396									CAS No	123-51-3					
Methyl butenol	967	0	NI	0	R	2	NI	1	0	(2)	2	2			D	2
Methylbutenol	458									CAS No	556-82-1					
Methyl tert-butyl ether	969	1	NI	1	NR	1	0	0	0	0	2	1		T	ED	2
Methyl tert-butyl ether	454									CAS No	1634-04-4					
Methyl butyl ketone	970	1	NI	1	(R)	1	(0)	0	0	0	1	1	RN		FED	3
Methyl butyl ketone	443									CAS No	591-78-6					
Methylbutynol	968	0	NI	0	NR	1	NI	1	1	0	0	2			D	2
2-Methyl-2-hydroxy-3-butyne	52									CAS No	115-19-5					
Methylbutynol	968	0	NI	0	NR	1	NI	1	1	0	0	2			D	2
Methylbutynol	459									CAS No	115-19-5					
Methyl butyrate	973	1	NI	1	NI	(2)	NI	0	0	2	2	(2)			ED	2
Methyl butyrate	444									CAS No	623-42-7					
Methyl cyclohexane	976	3	3	3	NR	3	1	0	0	1	1	1	A		E	2
Methylcyclohexane	460									CAS No	108-87-2					
Methyl cyclopentadiene, dimer	977	4	NI	4	(NR)	(3)	NI	0	(0)	(2)	(2)	(2)			F	2
Methylcyclopentadiene dimer	461									CAS No	26472-00-4					
Methyl cyclopentadienyl manganese tricarbonyl (60-70%) in mineral oil	2213	3	NI	3	NR	4	NI	2	3	4	1	1			S	3
Methylcyclopentadienyl manganese tricarbonyl	2692									CAS No						
N-Methyldiethanolamine	1491	0	NI	0	R	2	NI	1	0	(2)	1	2			D	2
Methyl diethanolamine	445									CAS No	105-59-9					
N,N'-methylene-bis(5-methyloxazolidine)	2555	0	NI	0	R	3	1	1	2	(3)	3B	3	CMTSs		D	3
	4296									CAS No						
Methylene dithiocyanate	2235	2	NI	2	NR	5	NI	2	0	4	3	3	Ss		NI	3
Methylene bithiocyanate	2693									CAS No	6317-18-6					
2-Methyl-6-ethylaniline	984	2	NI	2	NR	2	NI	1	1	(2)	0	2			FD	2
2-Methyl-6-ethyl aniline	54									CAS No	24549-06-2					
2-Methyl-5-ethylpyridine	986	2	NI	2	R	2	0	1	2	(3)	3	3			FD	3
2-Methyl-5-ethyl pyridine	53									CAS No	104-90-5					

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Methyl formate	987	0	NI	0	R	1	NI	1	0	2	0	2			DE	2
Methyl formate	447								CAS No		107-31-3					
N-Methylglucamine, 60% aqueous solution	2048	0	NI	0	R	0	NI	1	0	(3)	0	3			D	3
N-Methylglucamine solution (70% or less)	482								CAS No		6284-40-8					
2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)	2397	0	NI	0	R	0	NI	2	2	3	0	1			FD	2
2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)	3632								CAS No		4553-62-2					
Methyl heptyl ketone	988	3	NI	3	R	3	NI	0	0	NI	NI	NI			FED	NI
Methyl heptyl ketone	448								CAS No		821-55-6					
Methyl isobutyl ketone	971	1	NI	1	R	1	0	1	0	2	2	3			FED	3
Methyl isobutyl ketone	449								CAS No		108-10-1					
Methyl methacrylate	995	1	NI	1	R	2	NI	0	0	0	2	2	Ss		ED	2
Methyl methacrylate	450								CAS No		80-62-6					
3-Methyl-3-methoxy butanol	996	1	NI	1	NR	0	NI	0	(0)	(2)	1	(2)			FD	2
3-Methyl-3-methoxybutanol	59								CAS No							
3-Methyl-3-methoxybutyl acetate	997	1	NI	1	NR	0	NI	0	(0)	NI	NI	NI			F	NI
3-Methyl-3-methoxybutyl acetate	60								CAS No							
Methyl naphthalenes	1999	4	NI	4	(NR)	(4)	NI	1	0	(2)	1	1		T	F	2
Methyl naphthalene (molten)	451								CAS No							
2-Methyl pentane	1000	3	NI	3	NI	4	NI	(0)	(0)	(2)	(2)	(2)			E	2
2-Methylpentane	2684								CAS No		107-83-5					
2-Methyl-1,3-propanediol	2200	0	0	0	NR	0	0	0	0	(0)	0	0			D	0
2-Methyl-1,3-propanediol	2213								CAS No							
Methyl propyl ketone	1003	0	NI	0	(R)	0	NI	1	0	(2)	1	2			FED	2
Methyl propyl ketone	452								CAS No		107-87-9					
2-Methyl pyridine	1005	1	NI	1	R	1	NI	1	2	1	3A	3			D	3
2-Methylpyridine	55								CAS No		109-06-8					
3-Methylpyridine	1006	1	NI	1	R	1	NI	1	2	2	3	3			D	3
3-Methylpyridine	61								CAS No		108-99-6					
4-Methylpyridine	1007	1	NI	1	(R)	1	NI	1	2	2	3	3			D	3
4-Methylpyridine	63								CAS No		108-89-4					

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N-Methylpyrrolidone	1008	0	NI	0	R	1	NI	0	0	2	1	2	R		D	3
N-Methyl-2-pyrrolidone	481								CAS No		872-50-4					
Methyl salicylate	86	2	NI	2	R	2	NI	1	1	(2)	2	1	R		SD	3
Methyl salicylate	453								CAS No		119-36-8					
alpha-Methylstyrene	1010	3	3	3	NR	3	NI	0	0	1	2	1	M	(T)	FE	3
alpha-Methylstyrene	107								CAS No		98-83-9					
3-(Methylthio) propionaldehyde	993	0	NI	0	R	3	1	1	1	2	2	3	NSs	T	D	3
3-(methylthio)propionaldehyde	2368								CAS No		3268-49-3					
Metolachlor (ISO)	113	2	2	2	NR	5	1	1	0	(2)	1	0	Ss		S	2
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide	469								CAS No		51218-45-2					
Mixed acid oil	2306	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	(1)	1			Fp	2
Acid oil mixture from soyabean, corn (maize) and sunflower oil refining	3036								CAS No							
Mixture of dithiophosphate salts in water	2381	1	0	1	NR	2	NI	0	0	(2)	2	2			D	2
Dialkyl thiophosphates sodium salts solution	3424								CAS No							
Molasses	1013	0	NI	0	R	0	NI	0	0	0	0	0			D	0
Molasses	462								CAS No							
Molybdenum polysulphide long chain alkyl dithiocarbamide complex	2344	4	2	2	NR	2	0	0	0	(2)	2	2			Fp	2
Molybdenum polysulphide long chain alkyl dithiocarbamide complex	3108								CAS No							
Mononitrobenzene	1017	1	1	1	R	3	(4)	(2)	2	2	1	1	CRT		SD	3
Nitrobenzene	501								CAS No		98-95-3					
Morpholine	1018	0	0	0	R	2	NI	1	2	2	3	3			D	3
Morpholine	463								CAS No		110-91-8					
Myrcene	1019	4	NI	4	R	4	1	0	0	(2)	2	NI			F	2
Myrcene	465								CAS No		123-35-3					
Naphthalene (molten)	1	3	3	3	NR	4	1	1	(0)	(1)	0	0	T	T	S	2
Naphthalene (molten)	493								CAS No		91-20-3					
Naphthalene, crude (molten) (#)!	2459	NI	(3)	(3)	NR	3	0	0	(0)	(2)	2	2	CMT		Fp	3
Naphthalene crude (molten)	3858								CAS No		85117-10-8					
Naphthalene sulphonic acid condensed with formaldehyde, sodium salt, solution	1020	0	1	1	(NR)	1	NI	0	(0)	(1)	0	1			D	1
Naphthalenesulphonic acid-Formaldehyde copolymer, sodium salt solution	494								CAS No		9084-06-4					

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Neodecanoic acid	1025	4	NI	4	NR	2	NI	0	0	(2)	0	2			Fp	2
Neodecanoic acid	496								CAS No		26896-20-8					
Nitric acid (90% or less)	1029	Inorg	NI	0	Inorg	2	NI	(3)	(1)	3	3C	3			D	3
Nitric acid (less than 70%)	499								CAS No		7697-37-2					
Nitric acid (90% or less)	1029	Inorg	NI	0	Inorg	2	NI	(3)	(1)	3	3C	3			D	3
Nitric acid (70% and over)	498								CAS No		7697-37-2					
Nitrilotriacetic acid, trisodium salt	1030	0	NI	0	R	1	0	1	(0)	0	1	1	CMR		D	3
Nitrilotriacetic acid, trisodium salt solution	500								CAS No		5094-31-3					
Nitroethane	1037	0	NI	0	NR	2	NI	1	0	(2)	(0)	(1)			SD	2
Nitroethane	502								CAS No		79-24-3					
Nitroethane (80%)/Nitropropane (20%)	2245	0	1	1	NR	2	NI	1	1	2	0	1			E	2
Nitroethane(80%)/ Nitropropane(20%)	503								CAS No							
Nitroethane, 1-Nitropropane (each 15% or more) mixture	2270	(0)	(1)	(1)	(NR)	(2)	NI	1	1	2	0	1			FED	2
Nitroethane, 1-Nitropropane (each 15% or more) mixture	2212								CAS No							
2-Nitrophenol	1041	1	2	2	R	3	(2)	0	0	(1)	1	1			S	1
o-Nitrophenol (molten)	536								CAS No		88-75-5					
1-Nitropropane	1044	0	1	1	NR	1	NI	1	0	2	0	1			FED	2
1-Nitropropane	2747								CAS No		108-03-2					
1- or 2- Nitropropane	2242	0	1	1	NR	1	NI	2	0	2	0	1	C		FED	3
1- or 2-Nitropropane	20								CAS No							
2-Nitropropane	1045	0	1	1	NR	2	NI	2	0	2	0	0	C		FED	3
2-Nitropropane	2748								CAS No		79-46-9					
Nitropropane (60%) Nitroethane (40%) (mixture)	1046	0	1	1	NR	2	NI	1	0	2	0	1	C		FED	3
Nitropropane (60%)/Nitroethane (40%) mixture	504								CAS No							
o-Nitrotoluene	1049	2	2	2	NR	2	(1)	1	0	(2)	0	1	CMR		S	3
o-Nitrotoluene	2745								CAS No		88-72-2					
p-Nitrotoluene	1051	2	1	1	NR	3	0	1	0	(2)	0	1	R		S	3
p-Nitrotoluene	2746								CAS No		99-99-0					
o- or p-Nitrotoluenes	2241	2	2	2	NR	3	(1)	1	0	(2)	0	1	CMR		S	3
o- or p-Nitrotoluenes	532								CAS No							

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Nonane	1054	4	NI	4	R	4	NI	0	0	1	1	1	A		FE	2
Nonane (all isomers)	506								CAS No		111-84-2					
Nonanoic acid	1055	3	NI	3	R	2	NI	0	0	(3)	2	3			F	3
Nonanoic acid (all isomers)	507								CAS No		112-05-0					
Nonene (all isomers)	2222	4	NI	4	NI	3	NI	0	0	0	1	1	A		FE	2
Nonene (all isomers)	508								CAS No							
1-Nonene	1060	4	NI	4	NI	3	NI	0	0	0	1	1	A		FE	2
1-Nonene	2680								CAS No		27215-95-8					
Nonyl acetate	1766	4	NI	4	NI	NI	NI	0	0	NI	NI	NI			F	NI
Nonyl acetate	509								CAS No		143-13-5					
Nonyl methacrylate monomer	1061	5	NI	5	R	3	NI	(0)	(0)	(1)	(1)	(1)			F	1
Nonyl methacrylate monomer	511								CAS No		2696-43-7					
Nonyl phenol	1062	5	4	4	NR	5	3	1	0	(3)	3	3			Fp	3
Nonylphenol	512								CAS No		25154-52-3					
Nonyl(C6-C12)phenol poly(4-12)ethoxylate	1063	4	NI	4	NR	3	1	0	0	(2)	2	1			D	2
Alkyl(C7-C11)phenol poly(4-12) ethoxylate	97								CAS No							
Nonyl(C6-C12)phenol poly(4-12)ethoxylate	1063	4	NI	4	NR	3	1	0	0	(2)	2	1			D	2
Nonylphenol poly(4+)ethoxylate	513								CAS No							
Octamethylcyclotetrasiloxane	2398	5	5	5	NR	0	3	0	0	0	0	0			F	1
Octamethylcyclotetrasiloxane	3633								CAS No							
Octane	1072	5	NI	5	(R)	4	NI	(0)	(0)	0	0	0	A		FE	2
Octane (all isomers)	538								CAS No		111-65-9					
Octanoic acid (Caprylic acid)	1074	3	NI	3	R	1	NI	0	0	(3)	3	3			F	3
Octanoic acid (all isomers)	539								CAS No		124-07-2					
1-Octanol	1075	3	NI	3	R	2	0	1	0	(2)	2	2			Fp	2
Octanol (all isomers)	540								CAS No		111-87-5					
1-Octanol	1075	3	NI	3	R	2	0	1	0	(2)	2	2			Fp	2
1-Octanol	2676								CAS No		111-87-5					
Octene (all isomers)	1079	4	NI	4	NR	3	NI	0	0	0	2	1	A		FE	2
Octene (all isomers)	541								CAS No							

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Octyl acetate	1080	3	NI	3	R	2	NI	0	0	(1)	1	NI			FD	1
n-Octyl acetate	483									CAS No	112-14-1					
Octyl decyl adipate	1082	0	NI	0	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(1)			Fp	2
Octyl decyl adipate	543									CAS No	110-29-2					
n-Octyl mercaptan	2461	4	3	3	NR	5	NI	1	0	(1)	1	0	Ss		F	3
n-Octyl mercaptan	3742									CAS No						
Olefin/Alkyl ester copolymer (molecular weight 2000+) (LOA)	1965	NI	NI	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Olefin-Alkyl ester copolymer (molecular weight 2000+)	546									CAS No						
Olefin mixture (C7-C9)	2385	5	4	4	NR	4	NI	(0)	0	0	2	1	A		E	2
Olefin mixture (C7-C9) C8 rich, stabilized	3548									CAS No	97593-00-5					
Olefin mixtures (C5-C7)	2243	3	NI	3	R	3	NI	(0)	(0)	(1)	(2)	(1)			E	2
Olefin mixtures (C5-C7)	545									CAS No						
Olefin mixtures (C5-C15)	2321	(5)	NI	(5)	NR	(4)	NI	(0)	(0)	(2)	(2)	(1)	A		FE	2
Olefin mixtures (C5-C15)	544									CAS No						
Olefins C13 and above, all isomers (#)	2028	5	NI	5	NR	0	NI	0	0	(1)	(1)	0	A		Fp	3
Olefins (C13+, all isomers)	547									CAS No						
alpha-Olefins (C6-C18),mixture	2030	(5)	NI	(5)	NR	(4)	NI	(0)	(0)	(2)	(2)	(1)	A		FE	2
alpha-Olefins (C6-C18) mixtures	108									CAS No						
alpha-Olefins (C12+), mixture (#)	2516	(5)	(5)	(5)	(R)	(0)	NI	(0)	(0)	(1)	(1)	(0)	A		Fp	3
alpha-Olefins (C12+), mixture	4197									CAS No						
Oleic acid	1089	0	NI	0	R	0	NI	0	1	(2)	1	1			Fp	2
Oleic acid	548									CAS No	112-80-1					
Oleylamine	1862	0	NI	0	NR	4	NI	1	(1)	(3)	3B	3			Fp	3
Oleylamine	550									CAS No						
Olive oil	1090	0	NI	0	R	(2)	NI	(0)	(0)	(1)	1	1			Fp	2
Olive oil	2771									CAS No	8001-25-0					
Orange juice	2375	0	0	0	R	0	0	0	0	(0)	0	0			D	0
Orange juice	3151									CAS No						
Orange juice (not concentrated)	2382	0	0	0	R	0	0	0	0	(0)	0	0			D	0
Orange juice (not concentrated)	3425									CAS No						

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Oxatetra-azahydroxyalkanoic acid, substituted with acetic acid / acetoxylethanolamine	2413	1	NI	1	R	1	NI	0	0	0	0	0			D	0		
Oxatetra-azahydroxyalkanoic acid, substituted with acetic acid / acetoxylethanolamine	3689								CAS No									
Oxygenated aliphatic hydrocarbon mixture	2266	5	2	(2)	NR	1	NI	0	0	(1)	1	1			FE	2		
Oxygenated aliphatic hydrocarbon mixture	2825								CAS No									
Palm acid oil	2307	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1			Fp	2		
Palm acid oil	3037								CAS No									
Palm fatty acid distillate	2310	NI	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1			Fp	2		
Palm fatty acid distillate	3040								CAS No									
Palm kernel fatty acid distillate	2335	(0)	0	0	R	(3)	NI	0	(0)	(2)	1	2			Fp	2		
Palm kernel fatty acid distillate	3111								CAS No									
Palm kernel olein (containing less than 5 % free fatty acids)	2308	(0)	NI	(0)	(R)	1	NI	(0)	(0)	(0)	(0)	(0)			Fp	2		
Palm kernel olein	3038								CAS No									
Palm kernel stearin (containing less than 5% free fatty acids)	2309	0	(0)	(0)	(R)	0	NI	(0)	(0)	(0)	(0)	(0)			Fp	2		
Palm kernel stearin	3039								CAS No									
Palm Mid Fraction	2363	(0)	NI	(0)	(R)	(0)	NI	0	0	(0)	(0)	(0)			Fp	2		
Palm mid-fraction	3126								CAS No									
Palm nut oil	1094	0	NI	0	R	1	NI	(0)	(0)	(1)	(0)	(1)			Fp	2		
Palm kernel oil	2766								CAS No									
Palm nut oil fatty acid	1095	0	NI	0	R	(3)	NI	0	0	(2)	1	2			Fp	2		
Palm kernel acid oil	553								CAS No									
Palm oil (containing less than 15% free fatty acids)	2249	0	NI	0	R	0	NI	0	(0)	(0)	0	0			Fp	2		
Palm oil	2764								CAS No									
Palm oil (containing more than 15% and less than 30% free fatty acids)	2364	0	NI	0	R	0	NI	0	0	(2)	(2)	(2)			Fp	2		
Non-edible industrial grade palm oil	3127								CAS No									
Palm oil fatty acid methyl ester	1097	0	NI	0	R	0	NI	0	0	0	0	1			Fp	2		
Palm oil fatty acid methyl ester	554								CAS No									
Palm oil mill effluent oil	2550	(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(1)	(0)	(1)			Fp	2		
Palm oil mill effluent oil	4291								CAS No									
Palm oil mill effluent oil fatty acid distillate	2551	(0)	NI	(0)	(R)	(3)	NI	(0)	(0)	(2)	(2)	(2)			Fp	2		
Palm oil mill effluent oil fatty acid distillate	4292								CAS No									

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Palm oil mill effluent oil refined	2552 4293	(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
									CAS No							
Palm olein	2250	0	NI	0	R	0	NI	0	(0)	(0)	0	0			Fp	2
Palm olein	2765								CAS No							
Palm stearin	2251	0	NI	0	R	0	NI	0	(0)	(0)	0	0			Fp	2
Palm stearin	555								CAS No							
Paraffin wax, highly-refined	1086	(5)	NI	(5)	(NR)	0	(0)	(0)	(0)	(0)	(0)	(0)			Fp	2
Paraffin wax, highly-refined	556								CAS No				8002-74-2			
Paraffin wax, semi-refined	2244	(5)	NI	(5)	NR	0	(0)	(0)	(0)	(0)	(0)	(0)	T		Fp	3
Paraffin wax, semi-refined	565								CAS No							
Paraldehyde	1098	0	0	0	NR	0	NI	1	0	0	1	3			D	3
Paraldehyde	557								CAS No				123-63-7			
Pentachloroethane	1099	3	2	2	NI	3	1	1	(1)	1	(1)	(1)	CT		S	3
Pentachloroethane	558								CAS No				76-01-7			
1,3-Pentadiene	1102	2	NI	2	NR	2	NI	0	0	0	1	(2)			E	2
1,3-Pentadiene	14								CAS No				504-60-9			
1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures.	2390	NI	NI	(3)	(NR)	(3)	NI	(2)	(1)	(3)	(2)	(2)	CMR		E	3
1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures	3560								CAS No							
Pentaethylene hexamine	1103	0	NI	0	NI	4	NI	1	(2)	(3)	3	(3)	Ss		D	3
Pentaethylenhexamine	560								CAS No				4067-16-7			
Pentane	1105	3	NI	3	R	3	NI	0	0	0	1	1			E	2
Pentane (all isomers)	561								CAS No				109-66-0			
1,5-Pentanedial solution, (5-50%) (#)	1107	0	NI	0	R	3	0	1	0	3	3	3	SsSr		D	3
Glutaraldehyde solutions (50% or less)	362								CAS No				111-30-8			
Pentanoic acid	1109	1	NI	1	NI	2	NI	1	2	(3)	3	3			FD	3
Pentanoic acid	562								CAS No				109-52-4			
Pentanoic acid (64%)/2-methyl butyric acid (36%) mixture	2144	(1)	NI	(1)	NI	(2)	NI	(1)	(2)	(3)	3	(3)			FD	3
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture	2211								CAS No							
1-Pentanol	1110	1	1	1	(R)	1	0	1	0	(3)	2	3			FED	3
n-Amyl alcohol	473								CAS No				71-41-0			

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2-Pentanol	1111	1	1	1	R	1	0	0	(0)	(2)	2	2			D	2
sec-Amyl alcohol	637								CAS No		6032-29-7					
Pentasodium triphosphate (*)	2418	Inorg	0	0	Inorg	1	NI	NI	NI	NI	NI	NI			NI	NI
	3694								CAS No							
Pentene (all isomers)	1992	2	NI	2	NI	(2)	NI	(0)	(0)	(0)	(0)	(1)			E	2
Pentene (all isomers)	563								CAS No							
1-Pentene	1114	2	NI	2	NI	(2)	NI	(0)	(0)	0	(0)	(1)			E	2
1-Pentene	2679								CAS No		109-67-1					
2-Pentene	1115	2	NI	2	NI	2	NI	(0)	(0)	(0)	(0)	(1)			E	2
2-Pentene	2678								CAS No		109-68-2					
Phenol	1124	1	2	2	R	3	0	2	2	(3)	3	3		NT	S	3
Phenol	566								CAS No		108-95-2					
Phenylxylylethane	1135	5	4	4	NR	(2)	NI	1	0	(1)	(0)	0			F	1
1-Phenyl-1-xylyl ethane	23								CAS No		40766-31-2					
Phosphate esters, alkyl(C12-C14)amine (LOA)	1854	2	NI	2	NR	3	NI	0	(0)	(2)	1	2			FD	2
Phosphate esters, alkyl (C12-C14) amine	1345								CAS No							
[[[(phosphonomethyl)imino]bis[ethylenenitribis(methylene)]]tetrakisphosphonic acid, ammonium salt solution (60% or less)]	2509	0	NI	0	NR	2	(0)	(0)	(0)	(1)	(1)	(1)			D	1
[[[(Phosphonomethyl)imino]bis[ethylenenitribis(methylene)]]tetrakisphosphonic acid, ammonium salt solution (60% or less)]	4077								CAS No		70714-66-8					
Phosphoric acid	1138	0	NI	0	Inorg	1	NI	1	1	3	3	3			D	3
Phosphoric acid	567								CAS No		7664-38-2					
Phosphorus (elemental yellow)	1139	Inorg	(3)	(3)	Inorg	6	4	0	0	0	2	1			S	2
Phosphorus, yellow or white (*)	568								CAS No		7732-14-0					
Phthalic anhydride (molten)	1146	1	NI	1	R	2	0	1	0	(3)	1	3	SsSr		S	3
Phthalic anhydride (molten)	569								CAS No		85-44-9					
alpha-Pinene	40	4	NI	4	R	4	NI	0	0	0	1	(1)	Ss	T	F	3
alpha-Pinene	109								CAS No		80-56-8					
beta-Pinene	41	4	NI	4	(R)	4	NI	0	0	0	1	(1)	Ss	NT	F	3
beta-Pinene	141								CAS No		1330-16-1					

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Pine oil	1148	4	NI	4	NR	4	NI	0	0	(1)	(1)	(1)	Ss	(T)	Fp	3
Pine oil	570									CAS No	8002-09-3					
Piperazine, 68% Aqueous	2433	0	NI	0	NR	2	NI	0	0	2	3A	3	SsSrN		SD	3
Piperazine, 68% solution	3748									CAS No	110-85-0					
Pol (2-8) alkylene (C2-C3) glycols/ Polyalkylene (C2-C10) glycols monoalkyl ethers and their borate esters	2358	(1)	NI	(1)	(R)	(1)	(0)	0	0	0	2	2			D	2
Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters	144									CAS No						
Polyacrylic acid (40% solution)	2302	(2)	NI	(2)	NR	1	NI	0	0	(1)	1	1			D	1
Polyacrylic acid solution (40% or less)	2709									CAS No						
Polyalkene sulphonic acid (C16-C18), sodium salt	2527	(3)	(2)	(3)	(R)	(4)	NI	(1)	(0)	(2)	(2)	(2)			D	2
Polyalkene sulphonic acid (C16-C18), sodium salt solution	4236									CAS No						
Polyalkene sulphonic acid (C20-C28), sodium salt (#)	2481	(5)	(4)	(4)	(NR)	1	0	(1)	(0)	(2)	(2)	(2)			Fp	2
Polyalkene sulphonic acid (C20-C28), sodium salt	4057									CAS No						
Poly(C18-C22)alkyl acrylate in xylene	1151	(3)	NI	(3)	NR	2	NI	0	0	(2)	2	1			Fp	2
Polyalkyl (C18-C22) acrylate in xylene	580									CAS No						
Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	2379	NI	0	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	3422									CAS No						
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	1152	1	NI	1	R	1	0	0	0	0	2	2			D	2
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	576									CAS No						
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	2254	1	NI	1	NR	2	1	0	0	0	2	2			D	2
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	575									CAS No						
Poly N-alkylmethacrylamide ammonium acrylate copolymer (20 % in DEGME) (**)	2468	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI			D	NI
	3931									CAS No						
Poly alkyl methacrylate (C1-C20) (LOA)	1984	(5)	NI	(5)	NR	0	NI	0	0	0	0	0			Fp	2
Polyalkyl (C10-C20) methacrylate	2189									CAS No						
Poly alkyl(C10-C18) methacrylate/ethylene-propylene copolymer mixture	2201	0	0	0	NR	0	0	0	0	(1)	1	1	A		Fp	3
Polyalkyl (C10-C18) methacrylate/ethylene-propylene copolymer mixture	2188									CAS No						
Poly alkyl(C18-C22)methacrylates/lauryl acrylate/vinyl acetate (40% in naphtha)	2512	(5)	(5)	(5)	NR	0	NI	0	0	(1)	1	(1)			Fp	2
	4161									CAS No						

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Polyaluminium chloride (sol.)	1136	Inorg	0	0	Inorg	0	NI	(0)	(0)	(1)	(0)	(1)			D	1
Polyaluminium chloride solution	584								CAS No				1327-41-9			
Polybutene	1154	0	NI	0	(NR)	(0)	(0)	(0)	(0)	(0)	(0)	(0)			Fp	2
Polybutene	585								CAS No				9003-29-6			
Polybutenylsuccinimide in oil	2055	5	NI	5	NR	0	NI	(0)	(0)	(0)	0	(0)			Fp	2
Polybutenyl succinimide	586								CAS No							
Poly(2+)cyclic aromatics	2246	4	4	4	NR	(4)	NI	(1)	(1)	(2)	(1)	(1)	CM		S	3
Poly(2+)cyclic aromatics	574								CAS No							
Polyether, borated	1863	0	NI	0	NR	3	1	0	(0)	(1)	1	0			D	1
Polyether, borated	572								CAS No							
Polyether (molecular weight 2000+) (LOA)	1975	0	NI	0	NR	1	NI	0	(0)	(0)	0	0			Fp	2
Polyether (molecular weight 1350+)	587								CAS No							
Polyethylene amines / paraffin mixtures	1991	(5)	NI	(5)	NR	3	0	0	(1)	(3)	(2)	(3)	Ss		Fp	3
Polyethylene polyamines (more than 50% C5 -C20 paraffin oil)	591								CAS No							
Polyethylene glycol	1157	0	NI	0	NR	0	NI	0	0	0	1	1			D	1
Polyethylene glycol	589								CAS No				25322-68-3			
Polyethylene glycol dimethyl ether	1158	0	NI	0	NR	0	NI	0	0	(1)	1	(1)			D	1
Polyethylene glycol dimethyl ether	590								CAS No				24991-55-7			
Poly(ethylene glycol) methylbutenyl ether (MW >1000)	2395	NI	0	0	R	1	NI	0	0	(0)	0	0			D	0
Poly(ethylene glycol) methylbutenyl ether (MW>1000)	3501								CAS No							
Polyethylene glycol sorbitol hexaoleate	2533	0	NI	0	R	2	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Polyethylene glycol sorbitol hexaoleate	4242								CAS No							
Polyethylene polyamines	2367	0	NI	0	NR	3	0	1	0	(3)	2	(3)	Ss		D	3
Polyethylene polyamines	3131								CAS No							
Polyferric sulphate solution	338	Inorg	0	0	Inorg	(2)	NI	1	(1)	(3)	3	(3)			D	3
Polyferric sulphate solution	592								CAS No							
Polyglycerine, sodium salt, solution	1874	0	NI	0	R	0	NI	0	0	(3)	(2)	3			D	3
Polyglycerin, sodium salt solution (containing less than 3% sodium hydroxide)	593								CAS No							
Polyglycerol	1511	NI	NI	NI	NI	NI	NI	0	(0)	(0)	(0)	(0)			D	0
Polyglycerol	594								CAS No							

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Poly (iminoethylene)-graft-N-poly (ethyleneoxy) solution (90% or less)	2287	0	0	0	NR	0	NI	0	0	(1)	0	1			D	1		
Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)	2537								CAS No									
Polyisobutenamine in aliphatic (C10-C14) solvent	2192	0	0	0	NR	2	NI	0	(0)	(2)	2	1			FED	2		
Polyisobutenamine in aliphatic (C10-C14) solvent	2374								CAS No									
(Polyisobutene) amino products in aliphatic hydrocarbons	2455	0	NI	(5)	NR	2	NI	0	0	(1)	1	0	A		Fp	3		
(Polyisobutene) amino products in aliphatic hydrocarbons	3811								CAS No									
Polyisobutenyl anhydride adduct	2127	0	NI	0	NR	0	NI	0	0	(1)	0	1			FD	1		
Polyisobutenyl anhydride adduct	2256								CAS No									
Poly(4+)isobutylene	2264	0	NI	0	NR	0	NI	(0)	(0)	(0)	(0)	(0)			Fp	2		
Polyisobutylene (MW≤224)	578								CAS No									
Polymethylene polyphenyl isocyanate	1153	NI	(2)	(2)	NR	0	0	0	0	(2)	2	2	SsSr		S	2		
Polymethylene polyphenyl isocyanate	595								CAS No								9016-87-9	
Polyolefin acid, potassium salt	1895	NI	NI	NI	NR	0	NI	0	0	(0)	0	0			NI	0		
Potassium salt of polyolefin acid	2199								CAS No									
Polyolefinamide alkene(C16+)amine (LOA)	2104	5	NI	5	NR	0	NI	0	0	(1)	1	(1)			Fp	2		
Polyolefin amide alkeneamine (C17+)	597								CAS No									
Polyolefin amide alkeneamine (C28+) (LOA)	1971	0	NI	0	NR	0	NI	0	0	(0)	1	(1)			NI	1		
Polyolefin amide alkeneamine (C28+)	598								CAS No									
Polyolefin amide alkeneamine borate (C28-C250) (LOA)	1970	0	NI	0	NR	0	NI	0	0	(0)	0	(0)			Fp	2		
Polyolefin amide alkeneamine borate (C28-C250)	600								CAS No									
Polyolefin amide alkeneamine/molybden oxysulphide mi	2256	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI			NI	NI		
Polyolefin amide alkeneamine/molybdenum oxysulphide mixture	603								CAS No									
Polyolefin amide alkylene amine polyol	1989	0	2	2	NR	0	NI	0	0	(0)	0	0			Fp	3		
Polyolefin amide alkeneamine polyol	602								CAS No									
Poly (17+) olefin amine	2049	0	NI	0	NR	2	NI	0	(0)	(1)	(1)	(1)			Fp	2		
Poly (17+) olefin amine	571								CAS No								98761-78-5	
Polyolefinamine (C28-C250) (LOA)	2107	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)			Fp	2		
Polyolefinamine in alkyl (C2-C4) benzenes	610								CAS No									
Polyolefinamine (C28-C250) (LOA)	2107	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)			Fp	2		
Polyolefinamine in aromatic solvent	611								CAS No									

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Polyolefinamine (C28-C250) (LOA)	2107	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)			Fp	2
Polyolefinamine (C28-C250)	609								CAS No							
Polyolefin aminoester salt	2095	0	NI	0	NR	1	NI	0	0	(1)	1	(1)			Fp	2
Polyolefin aminoester salts (molecular weight 2000+)	604								CAS No							
Polyolefin ester (C28-C250) (LOA)	1969	0	NI	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Polyolefin ester (C28-C250)	606								CAS No							
Polyolefin (molecular weight 300+) (LOA)	1968	0	NI	0	NR	0	NI	0	0	0	0	0			Fp	2
Polyolefin (molecular weight 300+)	596								CAS No							
Polyolefin phenolic amine (C28-C250) (LOA)	1980	0	NI	0	NI	0	NI	0	0	(1)	(1)	(1)			Fp	2
Polyolefin phenolic amine (C28-C250)	607								CAS No							
Polyolefin phosphoro sulphide - barium derivative (C28-C250) (LOA)	1976	0	NI	0	NI	2	NI	0	(0)	(0)	(0)	(0)			S	0
Polyolefin phosphorosulphide, barium derivative (C28-C250)	608								CAS No							
Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-, phosphate	2506	(4)	(3)	(3)	NR	3	(1)	(1)	(1)	(3)	(2)	(3)			S	3
Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-, phosphate	4158								CAS No		51811-79-1					
Polyoxyethylene sorbitan monooleate	1442	3	(2)	3	R	2	0	0	(0)	(0)	0	0			D	0
Poly(20)oxyethylene sorbitan monooleate	577								CAS No		9005-65-6					
Polyoxypropylene diamine	2352	1	NI	1	NR	1	NI	0	0	(3)	3	3			D	3
	3112								CAS No							
Polyphosphoric acids, esters with triethanolamine, sodium salts solution	2549	0	NI	0	NR	1	0	0	0	(0)	0	0			D	0
	4290								CAS No							
Polypropylene	1512	0	NI	0	NR	(0)	NI	(0)	(0)	(0)	(0)	(0)			F	1
Poly(5+)propylene	579								CAS No		9003-07-0					
Polypropylene glycol	1159	0	NI	0	(NR)	1	NI	1	0	(1)	1	1			D	1
Polypropylene glycol	612								CAS No		25322-69-4					
Polysiloxane	1161	NI	4	4	NI	2	NI	0	(0)	(0)	0	0			F	1
Dimethylpolysiloxane	275								CAS No							
Polysiloxane	1161	NI	4	4	NI	2	NI	0	(0)	(0)	0	0			F	1
Polysiloxane	613								CAS No							
Poly (tetramethylene) ether glycol (mw 600-3000)	2147	2	NI	2	NR	3	NI	0	0	(0)	0	(0)			FD	0
Poly(tetramethylene ether) glycol (mw 600-3000)	2540								CAS No							

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Potassium carbonate solution	2465	Inorg	0	0	Inorg	2	NI	0	0	(0)	2	2			D	2
Potassium carbonate solution	3928									CAS No						
Potassium chloride solution	1513	0	0	0	Inorg	1	0	0	(0)	(0)	0	0			D	0
Potassium chloride solution	614									CAS No	7447-40-7					
Potassium chloride solution (less than 26%)	2345	Inorg	0	0	Inorg	0	0	0	(0)	(0)	0	0			D	0
Potassium chloride solution (less than 26%)	3109									CAS No						
Potassium formate solution (75% or more)	2121	0	NI	0	R	0	NI	(0)	(0)	(2)	2	2			D	2
Potassium formate solutions (*)	615									CAS No	590-29-4					
Potassium hydroxide (sol.)	1171	Inorg	0	0	Inorg	2	NI	2	(2)	(3)	3C	3			D	3
Potassium hydroxide solution	616									CAS No	1310-58-3					
Potassium iodide	2484	Inorg	(0)	(0)	Inorg	1	0	0	0	(0)	0	0	T		D	2
Potassium iodide	4060									CAS No	7681-11-0					
Potassium oleate	1497	3	NI	3	R	4	NI	(0)	(0)	(1)	1	1			FD	1
Potassium oleate	617									CAS No	143-18-0					
Potassium thiosulphate solution (50% or less)	2152	Inorg	0	0	Inorg	2	NI	0	0	(2)	2	(2)			D	2
Potassium thiosulphate (50% or less)	2335									CAS No						
Propanol	1180	0	NI	0	R	0	NI	1	0	0	1	2	R		D	3
n-Propyl alcohol	488									CAS No	71-23-8					
Propanolamine	1183	0	NI	0	R	2	NI	0	1	(3)	3	3			D	3
n-Propanolamine	485									CAS No	156-87-6					
2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer (aqueous solution)	2420	0	NI	0	R	2	0	0	(0)	(0)	0	(0)			D	0
2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer	3696									CAS No						
2-Propenoic acid polymer with 4-(1,1-dimethylethyl)phenol, formaldehyde, 2,5-furandione, 2-methyloxirane and oxirane (65% in naphtha/xylene)	2491	(5)	NI	(5)	NR	2	NI	0	0	(0)	(0)	0	A		Fp	3
2-Propenoic acid polymer with 4-(1,1-dimethylethyl)phenol, formaldehyde, 2,5-furandione, 2-methyloxirane and oxirane (65% in naphtha/xylene)	4125									CAS No	178603-70-8					
2-Propenoic acid polymer with furandione (65% in 2-butoxyethanol)	2435	0	NI	0	NR	2	0	1	0	0	2	2			Fp	2
2-Propenoic acid polymer with furandione (65% in 2-butoxyethanol)	3750									CAS No						
beta-Propiolactone	1184	0	NI	0	R	(2)	NI	2	(2)	4	3B	3	CM		D	3
beta-Propiolactone	142									CAS No	57-57-8					

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Propionaldehyde	1185	0	NI	0	R	2	NI	1	0	1	2	2			DE	2
Propionaldehyde	619								CAS No		123-38-6					
Propionic acid	1186	0	NI	0	R	2	NI	0	0	(3)	3B	3			D	3
Propionic acid	620								CAS No		79-09-4					
Propionic anhydride	1187	0	NI	0	R	2	NI	0	0	(3)	2	3			FD	3
Propionic anhydride	621								CAS No		123-62-6					
Propionitrile	1188	0	NI	0	NI	0	NI	3	3	4	1	2	R		D	3
Propionitrile	622								CAS No		107-12-0					
Propyl acetate	1191	1	NI	1	R	2	NI	0	0	0	1	1			ED	1
n-Propyl acetate	487								CAS No		109-60-4					
Propylamine	1194	0	NI	0	NI	1	NI	2	2	3	3	3			DE	3
n-Propylamine	490								CAS No		107-10-8					
Propyl benzene	1196	NI	NI	NI	NI	3	NI	NI	NI	NI	NI	NI		(T)	FE	NI
Propylbenzene	2686								CAS No		103-65-1					
Propyl chloride	1198	2	NI	2	NI	1	NI	0	NI	NI	NI	NI			FED	2
n-Propyl chloride	489								CAS No		540-54-5					
Propylene carbonate	2056	0	NI	0	R	0	NI	0	0	(3)	2	3			D	3
Propylene carbonate	624								CAS No		108-32-7					
Propylene dimer	1201	3	NI	3	R	3	NI	NI	NI	NI	NI	NI			E	2
Propylene dimer	625								CAS No							
1,2-Propylene glycol	1202	0	NI	0	R	0	0	0	0	0	0	0			D	0
Propylene glycol	626								CAS No		57-55-6					
Propylene glycol methyl ether acetate	1759	0	NI	0	NR	1	NI	0	0	0	0	1			D	1
Propylene glycol methyl ether acetate	627								CAS No		108-65-6					
Propylene glycol monoalkyl ether	1958	0	NI	0	NR	0	NI	0	1	0	2	3			D	3
Propylene glycol monoalkyl ether	628								CAS No							
Propylene glycol phenyl ether	2057	1	NI	1	NI	1	NI	0	0	(1)	(1)	(1)			SD	1
Propylene glycol phenyl ether	629								CAS No		4169-04-4					
Propylene oxide	76	0	NI	0	R	2	NI	1	2	2	2	3	CM		DE	3
Propylene oxide	630								CAS No		75-56-9					

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Propylene oxide/Ethylene oxide mixture	78	0	NI	0	R	1	NI	1	1	3	3	3	CMR		DE	3
Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% by mass	341								CAS No							
Propylene tetramer	2255	NI	4	4	NR	(4)	NI	(0)	(0)	(1)	(1)	(1)			F	1
Propylene tetramer	631								CAS No			6842-15-5				
Propylene trimer	1207	5	4	4	NR	3	2	(0)	(0)	(1)	(1)	(1)			FE	2
Propylene trimer	632								CAS No			13987-01-4				
Pyridine	1213	0	NI	0	R	3	0	1	1	2	1	3		NT	D	3
Pyridine	634								CAS No			110-86-1				
Pyridine bases	2131	1	NI	1	R	2	NI	2	1	(3)	3B	3			FED	3
Paraldehyde-ammonia reaction product	1989								CAS No							
Pyridinium, 1-(phenylmethyl)-, alkyl derivatives, chlorides (30% or less)/Ethoxylated nonylphenols (10% or less) in isopropanol (15% or less)/Methanol (3% or less) solution	2544	(3)	NI	(3)	(NR)	(4)	(2)	(1)	(0)	(3)	(3B)	(3)	TSs		D	3
	4284								CAS No							
Pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	2507	3	NI	3	NR	4	2	NI	NI	NI	(3B)	(3)			D	3
Pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	4159								CAS No			68909-18-2				
Pyrolysis gasoline	2271	(4)	(3)	(3)	(R)	(3)	(1)	1	0	(2)	2	2	TCM		FE	3
Pyrolysis gasoline (containing benzene)	1990								CAS No							
Quaternary ammonium compounds, benzyl-C12-14 (even-numbered)-alkyldimethyl, chlorides solution	2494	3	NI	3	NR	4	NI	1	0	(3)	3B	3			D	3
	4128								CAS No			68424-85-1				
Rapeseed oil (high erucic acid; containing less than 4% free fatty acids)	2315	0	NI	0	R	(2)	NI	(0)	(0)	(0)	(1)	(1)			Fp	2
Rapeseed oil	3045								CAS No							
Rapeseed oil (Low erucic acid containing less than 4% free fatty acids)	2296	0	NI	0	R	(2)	NI	0	0	0	(1)	(1)			Fp	2
Rapeseed oil (low erucic acid containing less than 4% free fatty acids)	2956								CAS No							
Rape seed oil fatty acid, methyl ester	2209	0	0	0	R	0	NI	0	(0)	(1)	1	1			Fp	2
Rape seed oil fatty acid methyl esters	2576								CAS No							
Rice bran oil (containing less than 15% of free fatty acids)	2312	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1			Fp	2
Rice bran oil	3043								CAS No							
Rosin	1219	3	NI	3	NR	3	NI	0	0	2	(1)	1	Ss		S	2
Rosin	635								CAS No			8050-09-7				
Rosin soap (disproportionated solution)	1220	3	NI	3	NR	3	NI	0	NI	NI	NI	NI			S	NI
Rosin soap (disproportionated) solution	636								CAS No							

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Safflower oil (containing less than 5% free fatty acids)	1222	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(1)	1	1			Fp	2
Safflower oil	3041								CAS No		8001-23-8					
Saturated and unsaturated alkyl (C10-C20) phosphite (LOA)	2108	0	NI	0	R	1	NI	0	0	(0)	0	0			Fp	2
Alkyl (C10-C20, saturated and unsaturated) phosphite	96								CAS No							
Shea butter (containing less than 15% free fatty acids)	2311	(0)	NI	(0)	NR	(0)	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Shea butter	3042								CAS No							
Silica slurry	1514	Inorg	0	0	Inorg	0	0	(0)	(0)	0	(0)	(0)			S	0
Microsilica slurry	2507								CAS No		7631-86-9					
Sodium acetate	1498	0	NI	0	R	0	NI	0	0	0	1	1			D	1
Sodium acetate solutions	639								CAS No		127-09-3					
Sodium aluminate (solution)	1234	Inorg	0	0	Inorg	3	1	(0)	(0)	(3)	(3)	(3)			D	3
Sodium aluminate solution	641								CAS No		11138-49-1					
Sodium aluminosilicate slurry	1235	Inorg	0	0	Inorg	1	0	0	0	0	1	1			S	1
Sodium aluminosilicate slurry	643								CAS No		1344-00-9					
Sodium benzoate	1475	0	NI	0	R	1	NI	0	(0)	(1)	0	1			D	1
Sodium benzoate	644								CAS No		532-32-1					
Sodium bicarbonate solution (less than 10%)	2386	0	NI	0	Inorg	0	0	0	0	(0)	0	0			D	0
Sodium bicarbonate solution (less than 10%)	3558								CAS No		144-55-8					
Sodium borohydride/sodium hydroxide mixture (soln.)	1239	Inorg	0	0	Inorg	2	NI	(2)	(1)	(3)	(3)	(3)			D	3
Sodium borohydride (15% or less)/Sodium hydroxide solution (*)	645								CAS No							
Sodium bromide solution (less than 50%)	2387	Inorg	NI	0	Inorg	0	0	0	0	(1)	0	1	R		D	3
Sodium bromide solution (less than 50%) (*)	3410								CAS No		7647-15-6					
Sodium carbonate	1243	Inorg	0	0	Inorg	1	NI	0	0	2	1	2			SD	2
Sodium carbonate solution (*)	646								CAS No		497-19-8					
Sodium chlorate solid and solutions (50% or less)	1244	Inorg	0	0	Inorg	1	NI	1	0	(2)	1	1			D	2
Sodium chlorate solution (50% or less) (amended) (*)	647								CAS No		7775-09-9					
Sodium chloride solution	2521	Inorg	0	0	Inorg	0	0	0	0	0	1	2			D	0
Sodium chloride solution (less than 30%)	4229								CAS No							
Sodium dichromate solution	487	Inorg	0	0	Inorg	4	1	2	2	4	2	3	CMSsSr		D	3
Sodium dichromate solution (70% or less)	649								CAS No		10588-01-9					

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Sodium dodecylpoly(oxyethylene) sulphate solution	2531	(3)	NI	(3)	R	3	NI	(0)	(0)	(3)	(2)	(3)			D	3		
Sodium dodecylpoly(oxyethylene) sulphate solution	4240								CAS No									
Sodium dodecyl sulphate (*)	2451	0	NI	0	R	3	1	NI	NI	NI	NI	NI			NI	NI		
	3869								CAS No									
Sodium hydrogen sulphide/Ammonium sulphide(mixture)	1253	Inorg	0	0	Inorg	3	NI	(2)	(2)	(3)	(3)	(3)			D	3		
Sodium hydrosulphide/Ammonium sulphide solution (*)	653								CAS No									
Sodium hydrogen sulphide (6% or less)/sodium carbonate (3% or less)	2262	0	NI	0	Inorg	1	NI	(0)	(0)	(1)	(1)	(1)			D	1		
Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution	650								CAS No									
Sodium hydrogen sulphide,solutions	1252	Inorg	0	0	Inorg	1	NI	2	2	(3)	(3)	3			D	3		
Sodium hydrosulphide solution (45% or less) (*)	652								CAS No								16721-80-5	
Sodium hydrogen sulphite,solutions	1251	Inorg	0	0	Inorg	1	NI	0	(0)	(0)	0	0			D	0		
Sodium hydrogen sulphite solution (45% or less)	651								CAS No								7631-90-5	
Sodium hydroxide (30% or less)/Sodium aluminate (25% or less) solution (#)	2486	Inorg	(0)	(0)	Inorg	3	1	0	(0)	(3)	3	(3)			D	3		
	3914								CAS No									
Sodium hydroxide solution (#)	1254	Inorg	0	0	Inorg	2	NI	1	1	3	3C	3			D	3		
Sodium hydroxide solution (*)	654								CAS No								1310-73-2	
Sodium hypochlorite solutions containing 20% and less but more than 2% NaOCl	1256	Inorg	0	0	Inorg	(4)	(1)	0	0	1	3	3			D	3		
Sodium hypochlorite solution (15% or less)	2785								CAS No								7681-52-9	
Sodium hypochlorite solutions containing more than 20% NaOCl	1255	Inorg	0	0	Inorg	5	2	0	0	1	3	3			D	3		
Sodium hypochlorite solution (Full strength solution)	655								CAS No								7681-52-9	
Sodium methylate (**)	2443	NI	NI	(0)	(R)	(2)	NI	NI	NI	NI	NI	NI	T		DE	NI		
Sodium methylate	3822								CAS No									
Sodium Methylate (21-30% in Methanol)	2427	0	NI	0	R	1	NI	2	(2)	(3)	3	3	T		D	3		
Sodium methylate 21-30% in methanol	3608								CAS No									
Sodium nitrate	1259	Inorg	0	0	Inorg	0	NI	(0)	(0)	(0)	(1)	(1)			SD	1		
Sodium nitrate	656								CAS No								7631-99-4	
Sodium nitrite	340	Inorg	0	0	Inorg	3	0	2	(2)	2	0	1			SD	2		
Sodium nitrite solution	658								CAS No								7632-00-0	
Sodium oxalate solution (#)	2518	0	(1)	(1)	R	2	1	1	0	(2)	(2)	2			D	2		
Sodium oxalate solution	4199								CAS No									

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Sodium perborate monohydrate	2284	Inorg	NI	NI	Inorg	3	NI	1	0	(3)	2	3			NI	3
Sodium perborate monohydrate	2948									CAS No						
Sodium petroleum sulphonate	1860	0	NI	0	(NR)	2	NI	0	(0)	(2)	1	2			S	2
Sodium petroleum sulphonate	660									CAS No						
Sodium polyacrylate solution	1487	0	NI	0	NR	1	0	0	(0)	(1)	1	1			D	1
Sodium poly(4+)acrylate solutions	826									CAS No						
Sodium silicate (solution)	1262	Inorg	0	0	Inorg	2	NI	1	0	(3)	3	3			D	3
Sodium silicate solution	661									CAS No	1344-09-8					
Sodium sulphate (solution)	1499	Inorg	0	0	Inorg	0	0	0	(0)	(1)	1	1			SD	1
Sodium sulphate solutions	662									CAS No	7757-82-6					
Sodium sulphide (solution)	1263	Inorg	0	0	Inorg	3	NI	1	1	(3)	3A	3			D	3
Sodium sulphide solution (15% or less)	663									CAS No	1313-82-2					
Sodium sulphite (solution)	9	Inorg	0	0	Inorg	2	NI	0	(0)	(1)	0	1			D	1
Sodium sulphite solution (25% or less)	664									CAS No	7757-83-7					
Sodium tartrate succinate/Sodium tartrate disuccinate mixtures	1771	NI	1	1	NI	1	NI	0	NI	NI	NI	NI			D	NI
Sodium tartrates/Sodium succinates solution	665									CAS No						
Sodium thiocyanate	1264	Inorg	0	0	Inorg	2	NI	1	(0)	(1)	0	0			D	1
Sodium thiocyanate solution (56% or less)	667									CAS No	540-72-7					
Sorbitan monooleate	2215	(5)	NI	(5)	R	3	NI	0	NI	NI	0	0			Fp	2
Sorbitan monooleate	2408									CAS No						
Sorbitan sesquioleate	2532	0	NI	0	NR	0	1	0	NI	(2)	1	0			Fp	2
Sorbitan sesquioleate	4241									CAS No						
Sorbitol	1265	0	NI	0	R	0	NI	0	(0)	(0)	(0)	(0)			D	0
Sorbitol solution	668									CAS No	50-70-4					
Sorbitol, propoxylated	2529	1	NI	1	NR	1	0	0	0	(0)	0	0			D	0
Sorbitol Propoxylated	4238									CAS No						
Soyabean oil (containing less than 4% free fatty acids)	2320	0	NI	0	R	0	NI	0	(0)	(1)	(0)	1			Fp	2
Soyabean oil	3050									CAS No						
Soybean oil fatty acids, methyl esters	2431	0	NI	0	R	2	NI	0	0	0	0	0			Fp	2
Soybean Oil Fatty Acid Methyl Ester	3737									CAS No						

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Styrene (monomer)	1273	3	(2)	3	R	3	NI	1	0	2	2	2	CM		FE	3
Styrene monomer	669								CAS No			100-42-5				
Styrene butadiene rubber latex	1274	0	NI	0	NR	0	NI	0	0	(1)	0	1			D	1
Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber	414								CAS No							
Sulpho hydrocarbon (C3-C88) (LOA)	1972	4	NI	4	NR	2	NI	0	0	0	0	0			Fp	2
Sulphohydrocarbon (C3-C88)	672								CAS No							
Sulpholane	1277	0	1	1	NR	2	0	1	0	0	1	2			SD	2
Sulpholane	673								CAS No			126-33-0				
Sulphonated polyacrylate solution	1760	NI	0	0	NI	0	NI	(0)	(0)	(0)	(0)	(0)			D	0
Sulphonated polyacrylate solution	674								CAS No							
Sulphur	906	Inorg	0	0	Inorg	0	NI	0	0	(1)	1	1			S	1
Sulphur (molten) (*)	675								CAS No			7704-34-9				
Sulphuric acid	1280	0	NI	0	Inorg	2	NI	0	(0)	3	3C	3	C		D	3
Sulphuric acid, spent	677								CAS No			7664-93-9				
Sulphuric acid	1280	0	NI	0	Inorg	2	NI	0	(0)	3	3C	3	C		D	3
Oleum	549								CAS No			7664-93-9				
Sulphuric acid	1280	0	NI	0	Inorg	2	NI	0	(0)	3	3C	3	C		D	3
Sulphuric acid	676								CAS No			7664-93-9				
Sulphurized fat(C14-C20) (LOA)	1853	0	NI	0	NR	1	NI	0	(0)	(1)	0	(1)			FD	1
Sulphurized fat (C14-C20)	2257								CAS No							
Sulphurized polyolefinamide alkene(C28-C250)amine (LOA)	1855	0	NI	0	NR	0	NI	0	0	(0)	0	0			FD	0
Sulphurized polyolefinamide alkene (C28-C250) amine	2258								CAS No							
Sunflower oil	1283	0	NI	0	R	0	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Sunflower seed oil	2782								CAS No			8001-21-6				
sym-Dichlorodiethyl ether	588	1	1	1	NR	1	0	2	3	4	1	3		T	SD	3
Dichloroethyl ether	233								CAS No			111-44-4				
Tall oil acids/linoleic acid dimer/polyalkylenepolyamines/dodecylbenzenesulphonic acid complexes in naphtha/isopropanol	2448	0	NI	0	NR	1	NI	0	0	(0)	0	0	CM		Fp	3
Tall oil acids/linoleic acid dimer/polyalkylenepolyamines/dodecylbenzenesulphonic acid complexes in naphtha/isopropanol	3866								CAS No							

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Tall oil acids reaction products with diethylenetriamine and acrylic acid in ethylene glycol	2497	3	NI	3	R	2	NI	0	0	(1)	0	1	Ss		D	2
Tall oil acids reaction products with diethylenetriamine and acrylic acid in ethylene glycol	4131									CAS No	85586-18-1					
Tall oil acids reaction products with triethanolamine	2492	4	NI	4	NR	2	NI	0	0	(1)	1	0			Fp	2
Tall oil acids reaction products with triethanolamine	4126									CAS No	67784-78-5					
Tall oil, crude and distilled	1285	(4)	NI	(4)	(R)	(2)	NI	0	0	(0)	0	0	Ss		Fp	2
Tall oil (crude and distilled)	678									CAS No	68187-71-3					
Tall oil, distilled	2283	0	NI	0	R	0	NI	0	(0)	(0)	0	(0)			Fp	2
Tall oil, distilled	2890									CAS No						
Tall oil fatty acid (resin acids less than 20%)	1287	0	0	0	R	0	0	0	0	(1)	1	0			Fp	2
Tall oil fatty acid (resin acids less than 20%)	679									CAS No	61790-12-3					
Tall oil fatty acid, barium salt	1864	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	1	2			S	2
Tall oil fatty acid, barium salt	680									CAS No						
Tall oil fatty acids reaction products with 2-[(2-aminoethyl)amino]ethanol, di-ethyl sulphate quaternized	2508	(3)	NI	(3)	NR	5	2	NI	NI	NI	(2)	(3)	Ss		D	3
Tall oil fatty acids reaction products with 2-[(2-aminoethyl)amino]ethanol, di-ethyl sulphate quaternized	4160									CAS No	70955-34-9					
Tall-oil fatty acids reaction products with diethylenetriamine	2554	2	NI	2	NR	4	1	0	(0)	(3)	3A	3	Ss		Fp	3
Tall-oil fatty acids reaction products with diethylenetriamine	4295									CAS No						
Tall oil pitch	2323	3	NI	3	NR	0	0	0	0	(0)	0	(0)			Fp	2
Tall oil pitch	3051									CAS No						
Tall oil soap (disproportionated solution)	1286	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	1	2			D	2
Tall oil soap (disproportionated) solution	681									CAS No						
Tall oil soap, crude	2432	0	NI	0	R	2	0	(0)	(0)	(3)	(3)	(3)	Ss		Fp	3
Tall oil soap, crude	3735									CAS No						
Tallow	1288	0	NI	0	R	0	NI	0	0	(0)	(0)	(0)			Fp	2
Tallow	682									CAS No	61789-21-6					
Tallowamidopropylamine Oxide in propylene glycol (70% or less) (#)	2482	NI	(2)	(2)	(R)	(4)	(2)	(1)	(1)	(3)	(3)	(3)			D	3
Tallowamidopropylamine Oxide in propylene glycol (70% or less) (#)	4058									CAS No						
Tallow fatty acid	1289	0	NI	0	R	0	NI	0	(0)	(0)	(0)	(0)			Fp	2
Tallow fatty acid	684									CAS No						
1,1,1,2-Tetrachloroethane	53	2	2	2	NR	3	0	2	0	2	2	2			SD	2
Tetrachloroethane	687									CAS No	79-34-5					

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1,1,2,2-Tetrachloroethylene	1295	3	2	2	NR	(3)	2	0	0	0	2	1	C		S	3
Perchloroethylene	564								CAS No		127-18-4					
Tetrachloromethane	1296	2	2	2	NR	3	0	0	0	0	1	1	CT		S	3
Carbon tetrachloride	178								CAS No		56-23-5					
Tetradecanoic acid (Myristic acid)	1298	5	NI	0	R	0	NI	0	(0)	(1)	(1)	(1)			Fp	2
n-Tetradecanoic acid	491								CAS No		544-63-8					
Tetradecanoic acid (Myristic acid)	1298	5	NI	0	R	0	NI	0	(0)	(1)	(1)	(1)			Fp	2
Fatty acid (saturated C13+)	347								CAS No		544-63-8					
Tetraethylene glycol	1301	0	NI	0	NR	0	NI	0	0	0	1	1			D	1
Tetraethylene glycol	688								CAS No		112-60-7					
Tetraethylene pentamine	1302	0	NI	0	NR	3	NI	0	2	(3)	3	3	Ss		D	3
Tetraethylene pentamine	689								CAS No		112-57-2					
Tetraethyl lead	1303	4	5	5	NR	5	NI	3	2	4	2	2	NR		S	3
Motor fuel anti-knock compound (containing lead alkyls)	464								CAS No		78-00-2					
Tetrahydrofuran	1304	0	NI	0	R	0	NI	0	(0)	0	1	2			DE	2
Tetrahydrofuran	690								CAS No		109-99-9					
Tetrahydronaphthalene	1305	3	3	3	NR	3	NI	0	0	(2)	2	0			F	2
Tetrahydronaphthalene	691								CAS No		119-64-2					
1,2,3,4-Tetramethylbenzene	1307	4	NI	4	NI	4	NI	0	(0)	(1)	1	(1)			F	1
Tetramethylbenzene (all isomers)	692								CAS No		488-23-3					
Tetrapotassium pyrophosphate	2400	Inorg	0	0	Inorg	1	NI	0	NI	NI	NI	NI			D	NI
Tetrapotassium pyrophosphate	3635								CAS No		7320-34-5					
Thioglycolic acid	2496	0	NI	0	R	2	NI	2	2	3	3B	3			D	3
Thioglycolic acid	4130								CAS No		68-11-1					
Thixatrol plus	2210	5	NI	5	R	3	NI	0	0	0	1	1			S	1
Thixatrol Plus	2699								CAS No							
Titanium dioxide slurry	2080	Inorg	1	1	Inorg	1	NI	0	0	0	1	1			S	1
Titanium dioxide slurry	2259								CAS No		13463-67-7					
Toluene	330	2	2	2	R	3	0	0	0	0	2	2	ANR	NT	E	3
Toluene	693								CAS No		108-88-3					

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Toluene diisocyanate	1315	(3)	1	1	NR	2	NI	0	(0)	4	3	3	CSsSr	S		3
Toluene diisocyanate	694								CAS No		584-84-9					
Toluidines	1316	1	1	1	R	4	2	1	0	(2)	2	2	CM		FD	3
o-Toluidine	537								CAS No							
2,4-Tolylenediamine	1317	0	2	2	NR	3	0	2	2	4	2	3	CMSs		Fp	3
Toluenediamine	695								CAS No		95-80-7					
Tolyl triazole	2292	1	NI	1	NR	2	0	1	0	(2)	(1)	2			S	2
Tolyl triazole	696								CAS No							
Tributyl phosphate	1319	4	2	2	R	3	0	1	0	2	2	2			F	2
Tributyl phosphate	697								CAS No		126-73-8					
1,2,3-Trichlorobenzene	2191	4	4	4	NR	4	2	1	0	(2)	2	2			S	2
1,2,3-Trichlorobenzene (molten)	2288								CAS No							
1,2,4-Trichlorobenzene	1323	4	5	5	NR	4	1	1	0	(2)	2	2	M		S	3
1,2,4-Trichlorobenzene	7								CAS No		120-82-1					
1,1,1-Trichloroethane	1326	2	NI	2	NR	2	NI	0	0	0	2	2			SD	2
1,1,1-Trichloroethane	1								CAS No		71-55-6					
1,1,2-Trichloroethane	1327	2	1	1	NR	2	0	1	0	1	2	1			SD	2
1,1,2-Trichloroethane	3								CAS No		79-00-5					
1,1,2-Trichloro-ethylene	329	2	2	2	NR	3	NI	0	0	0	2	2	MC		SD	3
Trichloroethylene	698								CAS No		79-01-6					
Trichloromethane	1328	1	1	1	NR	2	0	2	0	2	1	1	CT		SD	3
Chloroform	186								CAS No		67-66-3					
1,2,3-Trichloropropane	1329	2	2	2	NR	2	0	2	2	2	2	2	C		SD	3
1,2,3-Trichloropropane	6								CAS No		96-18-4					
1,1,2-Trichloro-1,2,2-trifluoroethane	1330	3	2	2	NR	3	0	0	0	0	1	1			S	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	2								CAS No		76-13-1					
Tricresyl phosphate (less than 1% ortho-isomers)	1331	5	(3)	(3)	(R)	(4)	(4)	0	1	0	1	1	N		S	2
Tricresyl phosphate (containing less than 1% ortho-isomer)	700								CAS No		1330-78-5					
Tricresyl phosphate (more than 1% ortho-isomers)	1332	5	3	3	R	4	4	0	1	0	1	1	N		S	2
Tricresyl phosphate (containing 1% or more ortho-isomer)	699								CAS No		1330-78-5					

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Tricyanohexane	2530	0	NI	0	NR	1	NI	1	0	(1)	0	0			SD	1
Tricyanohexane	4239								CAS No							
Tridecane	1333	0	NI	0	NI	0	NI	0	0	(1)	1	0			Fp	2
Tridecane	701								CAS No		629-50-5					
Tridecanoic acid	1334	5	NI	5	(R)	3	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Tridecanoic acid	702								CAS No		638-53-9					
Tridecyl acetate	1768	5	NI	5	NI	0	NI	0	(0)	(2)	2	2			F	2
Tridecyl acetate	703								CAS No		1072-33-9					
Triethanolamine	1338	0	0	0	R	1	NI	0	0	(2)	1	2			D	2
Triethanolamine	704								CAS No		102-71-6					
3-(Triethoxysilyl)propylamine	2445	1	1	1	R	1	NI	1	0	(3)	3B	3	Ss		D	3
3-(Triethoxysilyl)propylamine	3824								CAS No		919-30-2					
Triethylamine	1339	1	0	0	R	3	0	1	2	2	2	3			D	3
Triethylamine	706								CAS No		121-44-8					
1,3,5-Triethylbenzene	1340	5	NI	5	NI	4	NI	0	(0)	(2)	(2)	(1)			F	2
Triethylbenzene	707								CAS No		25340-18-5					
Triethylene glycol	1341	0	NI	0	R	0	0	0	0	0	0	0			D	0
Triethylene glycol	708								CAS No		112-27-6					
Triethylenetetramine	1346	0	NI	0	NR	3	NI	0	2	(3)	3	3	Ss		D	3
Triethylenetetramine	709								CAS No		112-24-3					
Triethylenetetramine/2-piperazine-1-ylethylamine mixtures (#)	2456	0	NI	0	NR	2	NI	0	2	(3)	3	3	Ss		D	3
	3872								CAS No							
Triethyl phosphate	1348	0	0	0	NR	1	0	1	0	0	(2)	(2)			D	2
Triethyl phosphate	705								CAS No		78-40-0					
Triethyl phosphite	1349	0	NI	0	R	1	NI	1	0	2	1	2	Ss		FE	2
Triethyl phosphite	710								CAS No		122-52-1					
Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO)	2470	(5)	NI	(5)	R	(0)	(0)	(0)	(0)	(1)	(1)	(1)			Fp	2
Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated) (m) (n)	4023								CAS No		68990-65-8					
Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO)	2470	(5)	NI	(5)	R	(0)	(0)	(0)	(0)	(1)	(1)	(1)			Fp	2
Used cooking oil (m)	3974								CAS No		68990-65-8					

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Triisopropanolamine	1370	0	0	0	NR	1	0	1	0	0	(2)	3			FD	3
Triisopropanolamine	711								CAS No		122-20-3					
Triisopropylated phenyl phosphates	1375	5	5	5	R	4	NI	0	0	0	0	0			S	0
Triisopropylated phenyl phosphates	712								CAS No		68937-41-7					
Trimethylacetic acid	1350	1	1	1	R	2	NI	1	1	(2)	2	2			Fp	2
Trimethylacetic acid	714								CAS No		75-98-9					
Trimethylamine	1353	0	NI	0	R	1	NI	1	0	2	3	3			DE	3
Trimethylamine solution (30% or less)	715								CAS No		75-50-3					
1,2,3-Trimethyl benzene	1354	3	3	3	NR	4	0	0	0	1	2	1			FE	2
Trimethylbenzene (all isomers)	716								CAS No		526-73-8					
2,4,4-Trimethyl hexamethylene diamine	1359	1	NI	1	NI	NI	NI	1	0	(3)	2	3	Ss		D	3
Trimethylhexamethylenediamine (2,2,4- and 2,4,4-isomers)	718								CAS No		25620-58-0					
Trimethyl hexamethylene diisocyanate	1360	0	NI	0	NI	3	NI	0	NI	NI	NI	NI	SsSr		NI	2
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-isomers)	717								CAS No		28679-16-5					
Trimethylol propane polyethoxylate	1362	NI	NI	NI	NR	1	NI	0	0	NI	NI	NI			NI	NI
Trimethylolpropane polyethoxylate	719								CAS No							
Trimethylol propane, propoxylated	2274	0	NI	0	(NR)	1	0	0	0	(1)	0	1			SD	1
Trimethylol propane propoxylated	2870								CAS No							
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	1845	4	NI	4	NR	0	NI	0	0	(1)	1	0			F	1
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	26								CAS No							
2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	1364	3	NI	3	NI	2	NI	0	0	(1)	1	1			Fp	2
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	27								CAS No		25264-77-4					
Trimethyl phosphite	1365	0	NI	0	R	NI	NI	NI	NI	NI	NI	NI			S	NI
Trimethyl phosphite	713								CAS No		121-45-9					
1,3,5-Trioxane	1844	0	NI	0	NI	0	NI	0	0	0	0	1	R		SD	3
1,3,5-Trioxane	10								CAS No		110-88-3					
Tripropylene glycol	1372	0	0	0	R	0	0	0	0	(0)	0	0			D	0
Tripropylene glycol	720								CAS No		24800-44-0					
Trixylenyl phosphate	1377	5	4	4	NR	4	1	(0)	(1)	(0)	(1)	(1)	R		S	3
Trixylyl phosphate	721								CAS No		25155-23-1					

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Tung oil	1378	0	NI	0	R	(2)	NI	(0)	(0)	(1)	(0)	(1)			Fp	2			
Tung oil	2784								CAS No										
Turpentine (wood)	1379	4	NI	4	NI	4	NI	0	(0)	1	(2)	2	SsA	(T)	D	2			
Turpentine	722								CAS No								8006-64-2		
Undecanoic acid	1381	4	NI	4	(R)	3	NI	(0)	(0)	(2)	1	(2)			Fp	2			
Undecanoic acid	723								CAS No								112-37-8		
1-Undecanol	1382	4	NI	4	R	4	NI	0	0	(2)	2	(1)			Fp	2			
Undecyl alcohol	724								CAS No								112-42-5		
1-Undecene	1383	5	NI	5	NR	4	NI	(0)	(0)	(1)	(2)	(1)	A		F	3			
1-Undecene	24								CAS No								821-95-4		
Urea	1384	0	0	0	R	1	NI	0	0	(1)	1	(1)			D	1			
Urea solution	726								CAS No								57-13-6		
Urea	1384	0	0	0	R	1	NI	0	0	(1)	1	(1)			D	1			
Urea	2627								CAS No								57-13-6		
Urea/Ammonium mono and dihydrogen phosphate/ Potassium chloride solution	1386	0	0	0	R	3	2	NI	NI	NI	NI	NI			NI	NI			
Urea/Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution	727								CAS No										
Urea/Ammonium nitrate solution (containing < 1% aq. ammonia)	1387	0	NI	0	R	(2)	(0)	0	0	(1)	(1)	(1)			D	1			
Urea/Ammonium nitrate solution	729								CAS No										
Urea-ammonium phosphate solutions	2179	0	0	0	R	3	2	(0)	(0)	(2)	(2)	(2)			D	2			
Urea/Ammonium phosphate solution	730								CAS No										
Urea-formaldehyde resin solution	1388	NI	NI	NI	NI	1	NI	1	1	NI	NI	NI	Ss		NI	2			
Urea formaldehyde resin solution	725								CAS No										
Vegetable acid oils	2371	0	NI	0	R	0	NI	(0)	(0)	(1)	(1)	(1)			Fp	2			
Vegetable acid oils (m)	3138								CAS No										
Vegetable oils fatty acid distillates	2369	0	NI	0	R	0	NI	(0)	(0)	(0)	(0)	(0)			Fp	2			
Vegetable fatty acid distillates (m)	3137								CAS No										
Vegetable protein solution,hydrolyzed	1398	0	NI	0	R	0	NI	(0)	(0)	(0)	(0)	(0)			D	0			
Vegetable protein solution (hydrolysed)	734								CAS No										
Vinyl acetate	1400	0	NI	0	R	2	NI	1	0	2	1	1	C		ED	3			
Vinyl acetate	735								CAS No								108-05-4		

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Vinyl ethyl ether	1405	1	NI	1	NR	1	NI	0	0	0	1	1			E	2
Vinyl ethyl ether	736								CAS No		109-92-2					
Vinylidene chloride	1406	2	1	1	NR	2	NI	2	0	(2)	2	2	M		SD	3
Vinylidene chloride	738								CAS No		75-35-4					
Vinyl neodecanoate	1404	5	NI	5	NR	3	NI	0	0	(3)	3	3			F	3
Vinyl neodecanoate	737								CAS No		45115-34-2					
Vinyl toluenes	1409	3	3	3	NR	3	NI	0	0	2	2	1	NM	(T)	F	3
Vinytoluene	739								CAS No		25013-15-4					
White spirit, low (15-20%)aromatic	1411	(4)	NI	(4)	(R)	3	NI	(0)	(0)	(2)	(1)	(2)	A		F	3
White spirit, low (15-20%) aromatic	742								CAS No							
Wood lignin with sodium acetate/oxalate	2403	NI	NI	(0)	NR	(0)	NI	0	(0)	(1)	(1)	(1)			D	1
Wood lignin with sodium acetate/oxalate	3638								CAS No							
Xylene (mixed isomers)	1408	3	NI	3	NR	3	0	0	0	0	2	2		(T)	FE	2
Xylenes	743								CAS No		133-20-7					
Xylenes/Ethyl benzene (10% or more) mixture	2269	3	2	2	NR	3	1	(0)	(0)	(2)	(2)	(2)		(T)	FE	2
Xylenes/ethylbenzene (10% or more) mixture	2337								CAS No							
Xylenols (mixtures)	1422	2	NI	2	R	3	NI	1	2	(3)	3	3		(T)	Fp	3
Xylenol	744								CAS No		1300-71-6					
Yeast Extract Solution with Propylene Glycol (25% or less)	2396	NI	0	0	R	0	NI	0	0	(1)	0	1			D	1
Stabilized Yeast Extract Solution	3631								CAS No		8013-01-2					
Zinc alkaryl dithiophosphate (C7-C16) (LOA)	1977	0	NI	0	NR	3	NI	0	0	(0)	(0)	(0)			Fp	2
Zinc alkaryl dithiophosphate (C7-C16)	745								CAS No							
Zinc alkenylcarboxamide (LOA)	2053	NI	0	0	NR	0	NI	0	0	(1)	1	(1)			Fp	2
Zinc alkenyl carboxamide	746								CAS No							
Zinc alkyl dithiophosphate	1428	5	NI	5	NR	3	NI	0	0	0	2	2			S	2
Zinc alkyl dithiophosphate (C3-C14)	747								CAS No							
Zinc bromide solutions	2227	Inorg	4	4	Inorg	3	NI	1	(2)	(3)	3B	3	Ss		D	3
Zinc bromide solutions	2617								CAS No							
Zinc chloride	1425	Inorg	4	4	Inorg	4	1	(1)	(1)	(3)	(3)	(3)			D	3
Zinc chloride	2869								CAS No		7646-85-7					

ANNEX 5

TEMPLATE TO BE USED FOR MIXTURES IN LIEU OF SECTION 4 IN THE GESAMP/EHS PRODUCT DATA REPORTING FORM

General guidance when preparing submissions for mixtures where test data for the mixture is not provided or for component-based assessments where information on all GESAMP hazard profile endpoints for each component is not provided

- 1 for the physical-chemical properties, test data for the overall mixture should always be provided;
- 2 for ecotoxicological and human toxicological properties in principle, test data for the entire mixture are preferred. In case test data for the mixture is submitted, this should be clearly indicated using the standard EHS data submission form. In certain cases, for some hazards a component-based assessment might be necessary due to lack of data on the mixture. Guidance will be provided by IMO on a case-by-case basis;
- 2 when submitting information for a component-based assessment of the mixture for some of the GESAMP hazard profile endpoints, information on these endpoints should be provided for each component, as appropriate;
- 3 if the information in point 2 and 3 is not available, a rationale as to why this information is not being submitted needs to be provided for each component, as appropriate. It should be indicated whether the submitted information is for the product itself, a similar product or component (based on, for example, GHS bridging principles or read across);
- 4 if GHS bridging principles or read across to other compounds are referenced in the dossier, adequate rationale to support such read across should be provided (see sections 3.9 and 3.10 in GESAMP Reports and Studies No.102); and
- 5 when polymers form part of a mixture that is submitted for assessment on a component basis, information on any residual monomers and/or additives (e.g. stabilizers) present in the mixture should also be provided. The identity and concentration of monomers and additives in the mixture are a minimum requirement.

An example of a submission for a formulated mixture is provided in the Appendix to this form.

Section 4 – Composition

Component name	%	Range	Type	Information Submitted on ecotoxicity (Y/N)*	Rationale (ecotoxicity)	Information Submitted on toxicity (Y/N)*	Rationale (toxicity)
				A1: A2: B1: B2:		C1: C2: C3: D1: D2: D3:	
				A1: A2: B1: B2:		C1: C2: C3: D1: D2: D3:	
				A1: A2: B1: B2:		C1: C2: C3: D1: D2: D3:	

* Please provide the rationale for the data submitted. If no data is submitted, provide justification as for why.

APPENDIX

Example of a composition table for a mixture

Component name	%	Range	Type	Information Submitted on ecotoxicity (Y/N)	Rationale (ecotoxicity)	Information Submitted on toxicity (Y/N)	Rationale (toxicity)
zzzzzz	14	5-15	Active agent	A1: N A2: N B1: N B2: N	Existing entry on the composite list (EHS 1234)	C1: N C2: N C3: N D1: N D2: N D3: N	Existing entry on the composite list (EHS xxxx)
xyxyxy	16	10-30	Active agent	A1: N A2: N B1: N B2: N	Read across to existing entry on the composite list (EHS 2345). Provide rationale for read across	C1: N C2: N C3: N D1: N D2: N D3: N	Read across to existing entry on the composite list (EHS yyyy). Rationale for read across is provided in document xy.
xyzxyz	20	18-25	Active agent	A1: N A2: Y B1: Y B2: N	A1: MW>1000 A2: test data B1: test data B2: No information	C1: Y C2: Y C3: N D1: Y D2: N D3: Y	C1: Test data C2: Test data C3: No information D1: Test data D2: No information D3: No information indicating long-term health effects
Water	50	40-60	Solvent	Not applicable	Not applicable	Not applicable	Not applicable

ANNEX 6

**PROVISIONAL AGENDA FOR THE FIFTY-NINTH SESSION OF THE
GESAMP/EHS WORKING GROUP**

- 1 Adoption of the agenda
 - 2 Outcome of other bodies
 - 3 Evaluation of new substances
 - 4 Re-evaluation of substances and consideration of issues related to evaluations
 - 5 Classification issues
 - .1 Clarification of the guidance on mixtures, including consideration of the approaches taken in the ecotoxicology and toxicology section of Report and Studies No.102
 - .2 Consideration of the potential need for additional guidance regarding the assessment of the C2 and C3 columns
 - .3 Further discussions about appropriate rationales for read-across
 - .4 Guidance on the information needed for characterization of polymers
 - 6 Consolidation of existing data files
 - 7 Communication and publication
 - 8 Any other business
 - 9 Consideration and adoption of the report
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