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PPR.1/Circ.14
1 July 2024

HAZARD EVALUATION OF SUBSTANCES TRANSPORTED BY SHIPS

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

The report of the sixty-first session of the GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships (GESAMP/EHS Working Group), held from 13 to 17 May 2024, is attached.

Any comments or questions should be addressed to:

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INTERNATIONAL MARITIME ORGANIZATION

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WORKING GROUP ON THE EVALUATION OF THE HAZARDS OF HARMFUL SUBSTANCES CARRIED BY SHIPS
61st session
Agenda item 9

EHS 61/9
1 July 2024
ENGLISH ONLY

REPORT OF THE SIXTY-FIRST SESSION

LIST OF ANNEXES

1 INTRODUCTION

1.1 The sixty-first 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 conference from 13 to 17 May 2024 and was chaired by Mr. Richard Luit. The list of experts who attended the meeting is set out in annex 1. Dr. Annabelle Nicolas-Kopec, Senior Technical Adviser, ITOPF Ltd was present as an observer.

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

2 OUTCOME OF OTHER BODIES

2.1 The Group noted that the following meetings of relevance had taken place since the sixtieth session of the GESAMP/EHS Working Group (EHS 60):

.1 the fiftieth session of GESAMP, which took place from 18 to 22 September 2023;

.2 the twenty-ninth intersessional meeting of the Technical Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 29), which took place from 30 October to 3 November 2023 (PPR 11/3); and

.3 the eleventh session of the PPR Sub-Committee (PPR 11), which took place from 19 to 23 April 2024 (PPR 11/18).

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).

Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)

2.3 The Group noted that ESPH 29 had considered document ESPH 29/3/27 (Norway), seeking clarification on how to distinguish the entries "Used cooking oil" and "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" in chapter 17 of the IBC Code.

2.4 In this context, the Group noted that ESPH 29 had recalled that, inter alia:

.1 the two entries had identical GHPs;

.2 the generic entry for "Used cooking oil" had been assigned pollution category X as a precautionary measure;

.3 the entry for "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" was assigned pollution category Y and had been evaluated at ESPH 21 following consideration of document ESPH 21/3/14 (Belgium); and

.4 "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" had been assigned footnote (n), which states that "Confirmation that the product is composed of Triglycerides, C16-C18 and C18 unsaturated shall be required in order for the entry to be used. Otherwise, the more generic entry "Used cooking oil (m)" must be used".

2.5 The Group also noted that following consideration, ESPH 29 had agreed that, regardless of the analysis method used, the ranges in the first four rows of the table from document ESPH 21/3/14 and the information in the footnote to the table should be used for cargo classification purposes, as reproduced below.

Table 1: Composition of Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)

Component name	%	Range	Type
Triglycerides, C16-C18, C18 unsatd.		80 % – 100 %	Ester of glycerol and long-chain fatty acids, esterification complete
Diglycerides, C16-C18, C18 unsatd.		0.1 – 3%	Ester of glycerol and long-chain fatty acids, one OH-group of glycerol is not esterified
Monoglycerides, C16-C18, C18 unsatd.		0.1 – 3%	Ester of glycerol and long-chain fatty acids, two OH-groups of glycerol are not esterified
Fatty acids, C16-C18, C18 unsatd.		0.1 – 12%	Long-chain fatty acid

* The sum of all tri-, di- and monoglyceride and free fatty acid contents shall not underrun 95% of dried substance. The industry will provide a schema of declaration analysis which contains also a verification of this limit by means of the saponification value in order to make sure that naming and real content match. The proposed limit of 95% is due only to expected precision data of the methods and the deviations which are caused by substances of different molecular weight.

2.6 In this context, the Group noted that a request for re-evaluation had been submitted for "Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO)" (EHS 2470) and agreed to consider this matter further under agenda item 4 (Re-evaluation of substances and consideration of issues related to evaluations).

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 considered the following new substances[1], which had been submitted for evaluation to this session:

.1	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Maleic acid copolymer)	EHS 2573
.2	Alkenyl succinic anhydride derivs., polymers	EHS 2574
.3	Alkylated Phenol	EHS 2575
.4	Empty palm fruit bunch oil	EHS 2576

[1] The names of the substances shown in the list directly under paragraph 3.2 are in accordance with the submissions prior to GESAMP/EHS 61. The names agreed by GESAMP/EHS following consultation with the submitters are shown from paragraph 3.4 onwards and in annex 3.

.5	Ferric sulphate solution	EHS 2577
.6	Fatty acids, tall-oil, reaction products with polyethylenepolyamines, acetates	EHS 2578
.7	Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	EHS 2579
.8	Fatty acids, tall-oil, maleated	EHS 2580

3.3 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 2573 Maleic acid copolymer solution
Submitted as: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Maleic acid copolymer)

3.4 Having considered the submission and the data provided, the Group agreed that "Maleic acid copolymer 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	(2)	NI	(2)	1	2		0	D	2

EHS 2574 Alkenyl succinic anhydride derivatives, polymers
Submitted as: Alkenyl succinic anhydride derivs., polymers

3.5 The Group considered a submission for the product "Alkenyl succinic anhydride derivs., polymers". However, the product could not be fully evaluated due to the absence of adequate data on toxicological hazards and physico-chemical properties. The partial profile containing ratings for ecotoxicological hazards was assigned as below, and the submitter was invited to provide additional data at a future session.

3.6 In addition, the Group agreed that "Alkenyl succinic anhydride derivatives, polymers" would be a more appropriate name for entry into the Composite list.

3.7 The Group reiterated that information with full reference details, including full product compositional details along with explanations or rationales needed to interpret read-across or modelling results, as well as explanations or rationales for data waivers, should always be provided. Further guidance on presenting data is given in GESAMP Reports and Studies No. 102.

A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3
4	NI	4	NR	0	0	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI

EHS 2575 Tetrasodium 4-amino-3,6-bis(5-[4-chloro-6-(2-hydroxyethylamino)-1,3,5-triazin-2-ylamino]-2-sulphonatophenylazo)-5-hydroxynaphthalene-2,7-disulphonate (containing > 35% sodium chloride and sodium acetate)
Submitted as: Alkylated phenol

3.8 The Group considered a submission for the product "Alkylated phenol". However, the product could not be fully evaluated due to the absence of adequate data on toxicological

hazards and physico-chemical properties. The partial profile containing ratings for ecotoxicological hazards was assigned as below, and the submitter was invited to provide additional data at a future session.

3.9 In addition, the Group agreed that "Tetrasodium 4-amino-3,6-bis(5-[4-chloro-6-(2-hydroxyethylamino)-1,3,5-triazin-2-ylamino]-2-sulphonatophenylazo)-5-hydroxynaphthalene-2,7-disulphonate (containing > 35% sodium chloride and sodium acetate)" would be a more appropriate name for entry into the Composite list.

3.10 The Group reiterated that information with full reference details, including full product compositional details along with explanations or rationales needed to interpret read-across or modelling results, as well as explanations or rationales for data waivers, should always be provided. Further guidance on presenting data is given in GESAMP Reports and Studies No. 102.

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

EHS 2576 Palm oil, empty fruit bunch
Submitted as: Empty palm fruit bunch oil

3.11 Having considered the submission and the data provided, the Group agreed that "Palm oil, empty fruit bunch" would allow this product to be grouped with similar products on the Composite List and would therefore be a more appropriate name. Having noted limited information on exact composition, the Group assigned a GESAMP Hazard Profile based on a worst-case approach based on a group of similar products in the Composite list.

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)	(2)	NI	(2)	(2)	(2)		1	Fp	2

EHS 2577 Ferric sulphate solution

3.12 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
Inorg	0	0	Inorg	3	0	(1)	(0)	1	NI	1	(2)	(3)		0	D	3

EHS 2578 Fatty acids, tall-oil, reaction products with polyethylenepolyamines, acetates

3.13 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)	(2)	(2)	NR	(4)	(2)	1	(0)	(3)	NI	(3)	(3)	(3)	Ss	0	S	3

EHS 2579 Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates

3.14 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
(2)	(2)	(2)	NR	(5)	(2)	0	0	(3)	NI	(3)	(3)	(3)	Ss	1	Fp	3

EHS 2580 Fatty acids, tall-oil, maleated

3.15 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
2	NI	2	NR	2	0	(0)	(0)	(0)	NI	(0)	0	(0)	Ss	1	Fp	3

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).

4.3 The Group considered the following substances, which had been submitted for re-evaluation to this session:

.1 Diethylenetriamine pentamethylene phosphonic acid, pentasodium salt solution (47%) — EHS 2467

.2 Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO) — EHS 2470

4.4 The Group, in assessing the submitted products, made observations and reached conclusions as set out in the ensuing paragraphs.

EHS 2467 Diethylenetriamine pentamethylene phosphonic acid, pentasodium salt solution (47%) (**)

4.5 The Group considered a request for a re-evaluation for the existing entry "Diethylenetriamine pentamethylene phosphonic acid, pentasodium salt solution (47%) (**)" (EHS 2467), which had a partial profile in the GESAMP Composite List. The Group noted that the submitter had proposed amending the name of the product to "Diethylenetriamine pentamethylene phosphonate, sodium salts in water" to better reflect the composition of the product as shipped, but agreed that "Diethylenetriamine pentamethylene phosphonate, sodium salt solution" would be a more appropriate name for the entry.

4.6 Having reviewed the additional information provided by the manufacturer, the Group assigned amended ratings as below:

Amended name	Diethylenetriamine pentamethylene phosphonate, sodium salt solution				
Amended ratings	B2=0	C1=0	C2=0	C3a=(0)	C3b=NI
	C3=(0)	D1=0	D2=0	D3=blank	E1=0
	E2=D	E3=0			

EHS 2470 Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO)

4.7 The Group considered a request to re-evaluate "Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO)" (EHS 2470) based on data provided on the composition of 133 batches of used cooking oil that had been shipped. The Group agreed that bioaccumulation would be highly unlikely because organisms metabolize all major components. Consequently, an A1b=(0) rating was assigned by the Group. As the A1b rating takes precedence over A1a, the A1 rating was amended accordingly from A1=(5) to A1=(0).

4.8 The Group noted that the current rating for B1 for the entry for used cooking oil is B1=(0). Noting that the presence of free fatty acids was likely to drive the acute aquatic toxicity of the product, the Group reviewed the B1 ratings for free fatty acids in the Composite List. For "Fatty acids, linear, C8-C18 saturated with C18 unsaturated" (EHS 2260), B1=(4) and for "Fatty acids saturated, C8-C10" (EHS 2324), B1=4. The Group concluded that based on the free fatty acid content of 12% the current B1 rating of the entry should be amended from B1=(0) to B1=(3) based on the mixture classification rules in R&S 102, section 4.2.1.4.

4.9 As the used cooking oil product for which information had been provided in the most recent submission contained up to 19% free fatty acids, and the overall chemical composition of the main components (tri, di and monoglycerides) was the same as for EHS 2470, the Group agreed to amend the name for EHS 2470 in the composite list to clarify that this GHP applies to used cooking oil with a free fatty acid content below 25%.

4.10 In addition, the Group took note of the slightly higher concentrations of organochlorine compounds in the information submitted to this session. However, since the concentration levels of potentially toxic organochlorine compounds was far below levels triggering hazard rating in the Composite List, no amendments were made in the human health hazard ratings for EHS 2470. Similarly, the Group noted that the slightly different composition and concentrations of mono, di and triglycerides would not affect the hazard profile.

Amended name:	Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO), containing less than 25% free fatty acids		
Amended ratings	A1b=(0)	A1=(0)	B1=(3)

4.11 Having noted the outcome of ESPH 29, the Group recalled that:

.1 the IBC Code entry in chapter 17 for "Used cooking oil (m)" had not been assessed by GESAMP/EHS as no data had been forthcoming;

.2 ESPH 21 had agreed to assign carriage requirements using a precautionary approach in the absence of product data and agreed to the assignment of pollution category X; and

.3 ESPH 21 had noted that any relaxation in carriage requirements could be requested based on the submission of data to GESAMP/EHS for the establishment of a GESAMP Hazard Profile and subsequent submission to the ESPH Working Group for a review of the carriage requirements.

4.12 Subsequently, the Group concluded that the IBC Code entry "Used cooking oil (m)" (TRN 3974) had been incorrectly linked with EHS 2470 in the Composite List. As the carriage requirements for the generic used cooking oil entry had not been assigned based on a GHP, the Group agreed to remove "Used cooking oil (m)" (TRN 3974) from the Composite List.

EHS 2260 Fatty acids, linear, C8-C18 saturated with C18 unsaturated

4.13 Having reviewed and amended the profile for EHS 2470, the Group concluded that as with EHS 2470, metabolic processes for degradation also exist in organisms for "Fatty acids, linear, C8-C18 saturated with C18 unsaturated". Therefore, bioaccumulation is highly unlikely and an A1b=(0) rating was assigned by the Group, amending the existing NI rating. As the A1b rating takes precedence over A1a, the A1 rating was consequently amended accordingly.

Amended ratings A1b=(0) A1=(0)

EHS 2205 Aluminium sulphate solution

4.14 Having noted an incorrect entry for the A1b rating for "Aluminium sulphate solution" (EHS 2205), the Group reviewed the files for this product and corrected the Composite List to reflect the original assignment by the Group at a previous session.

Amended rating A1b=2

5 CLASSIFICATION ISSUES

Polymer hazard classification

5.1 Having noted over several sessions the difficulty in assessing polymers, the Group agreed that a remote workshop, organized with experts on polymer hazard identification and toxicology, would be very beneficial for the Group to develop guidance and criteria regarding their assessments.

5.2 In this regard, the Group agreed to reach out to their contacts and identify potential participants and to consider the timing of such a workshop.

List of decisions and recurring/ongoing classification issues

5.3 The Group recalled that at its previous session, it had agreed to keep an internal list of decisions, and a record of recurring or ongoing classification issues that required consideration over several sessions, with the aim of ensuring consistency and facilitating future revisions of Reports and Studies No. 102.

5.4 The Group reviewed and updated the document and agreed it would be circulated to the members of the Group prior to each EHS meeting.

6 CONSOLIDATION OF EXISTING DATA FILES

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

6.2 The Group was informed by the Secretariat that work was ongoing regarding the development of a new database for the Composite List which would allow additional functionalities. In this context, the Group reviewed the structure of the Composite List and agreed to a modified format which would emphasize the EHS names and numbers of entries on the Composite List by separating this information from products that had been assessed for inclusion in the IBC Code and/or list 1 of the MEPC.2/Circular.

6.3 In this connection, the Group reviewed the names of entries in the Composite List and agreed that all abbreviations for "aqueous" (e.g., "aq.") and "solution(s)" (e.g., "sol" or "solns") would be spelled out in full in the Composite List.

6.4 Having recalled that the ESPH Technical Group had agreed that substances used as components in trade named mixtures need to have a full GESAMP Hazard Profile (PPR.1/Circ.7/Rev.1, paragraph 1.11), the Group agreed:

.1 that the (**) notation after product names was therefore obsolete;

.2 to remove the (**) from product names; and

.3 to update the cover note of the Composite List accordingly.

7 COMMUNICATION AND PUBLICATION

7.1 Having noted the outdated text regarding the GESAMP/EHS Working Group on the GESAMP website, the Group reviewed proposed updates to the description and work of the Group and agreed to request the Secretariat to provide the updates to the GESAMP Office.

7.2 The Group considered options for providing updates to manufacturers and submitters regarding guidance in the interim periods between publications of updated Reports and Studies publications. In this context, the Group recalled that prior to the publication of GESAMP Reports and Studies No.102, the Group published updates in annexes to the Group's report (e.g. annexes 4 to 6 of the report of GESAMP/EHS 54 (PPR.1/Circ.4)).

7.3 Having agreed to continue this practice as new updates were developed, the Group also agreed that a list of such annexes should be provided on the IMO website for easy referral to submitters requesting information on the assessment process and requested the Secretariat to facilitate this pending the development of future updates.

7.4 With regard to future publications in the GESAMP Reports and Studies series, the Group agreed to pursue the next edition after the development of significant updates at a future session.

7.5 Having noted the lack of completeness in two submissions to this session, the Group also considered whether guidance could be provided to submitters through an update of the GESAMP/EHS Reporting Form. The Group agreed that the GESAMP/EHS Reporting Form could be reviewed to provide additional information that could be helpful to submitters while also reducing redundancy and agreed to conduct this review during the intersessional period with a view to finalization at GESAMP/EHS 62.

8 ANY OTHER BUSINESS

Draft provisional agenda and date of the next session

8.1 The Group agreed to the draft provisional agenda for its next session, set out in annex 5, and noted an invitation by the director of Cedre to host the 62nd session of the Group at Cedre in Brest, France, tentatively scheduled to take place from 19 to 23 May 2025. Subject to the aforementioned dates being confirmed, the deadline for manufacturers to submit information to GESAMP/EHS 62 would be 21 March 2025.

9 CONSIDERATION AND ADOPTION OF THE REPORT

9.1 The Group adopted its report, noting that it would be circulated as PPR.1/Circ.14.

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ANNEX 1

LIST OF PARTICIPANTS ATTENDING THE SIXTY-FIRST SESSION OF THE GESAMP/EHS WORKING GROUP

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ANNEX 2

OUTCOMES OF ESPH 29, PPR 11 AND GESAMP 50

1 Outcomes of ESPH 29, PPR 11 and GESAMP 50 that are relevant to GESAMP/EHS 60 are summarized below.

OUTCOMES OF ESPH 29

Evaluation of products and cleaning additives

2 ESPH 29 considered a number of products as part of its routine assessment and assignment of carriage requirements, in accordance with the IBC Code.

Offshore contaminated bulk liquid Treated (containing less than 0.8% of an H_2S Scavenger) (o)

3 ESPH 29 considered document ESPH 29/3/26 (Norway and United Kingdom), proposing an additional entry for "Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H_2S Scavenger) (o)" in list 1 of the MEPC.2/Circular and providing guidance on when to apply the additional entry for contaminated backloads through a proposed amendment to the *Code for the transport and handling of hazardous and noxious liquid substances in bulk on offshore support vessels (OSV Chemical Code)*, adopted through resolution A.1122(30).

4 In the ensuing discussion, ESPH 29 was informed that in the United Kingdom, all cargoes of contaminated backloads on OSVs were required, as a matter of operational best practice, to be treated for the prevention of hydrogen sulphide (H_2S) formation and also tested to ensure that there was no H_2S present in the cargo. Therefore, in practice, the pollutant-only entry for contaminated backloads in the IBC Code was not used, since any contaminated backload treated to prevent H_2S was considered a safety hazard by the OSV Chemical Code (resolution A.1122(30), paragraph 16.4.4). The tripartite agreement "Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H_2S Scavenger) (o)" utilized H_2S scavengers as an additional safety measure to ensure H_2S would not form on-board a vessel.

5 Notwithstanding the above, ESPH 29 noted concerns about the safety of contaminated backloads with regard to the formation of H_2S, a highly toxic gas, and the corresponding minimum carriage requirements. Several delegations expressed reservations with extending the validity of the tripartite agreement to all countries with no expiry date.

6 With regard to the proposed revisions to the OSV Chemical Code, ESPH 29 recalled that paragraph 3 of the resolution authorized the MEPC and MSC Committees to keep the OSV Chemical Code under review, but that this review was not linked to any approved output, nor had the ESPH Technical Group been tasked with such a review. Consequently, a proposal for a new output to MEPC would be required for amendments to the OSV Chemical Code.

7 In this connection, ESPH 29 considered that any potential amendments to the OSV Chemical Code would need to carefully consider the provisions regarding treatment of contaminated backloads to remove or prevent the formation of H_2S to ensure the safety of crew members at all times. Regarding a potential amendment to the OSV Chemical Code, one delegation noted the large number of products evaluated by the ESPH Technical Group that were used only by OSVs for offshore purposes, rather than vessels certified to carry NLS cargoes, and expressed the view that a potential proposal for a new output might also consider alternative approaches for evaluating these products.

8 Having considered the time required to gather data and information related to contaminated backloads and to prepare a proposal for a new output to the Committees, and having recognized the safety concerns related to contaminated backloads, ESPH 29 agreed to extend the expiry date of "Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H_2S Scavenger) (o)" in list 1 of the MEPC.2/Circular for three years. ESPH 29 noted that this extension was warranted due to the exceptional circumstances related to this product and should not set a precedent for expiry date extensions for other products.

Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated) (ESPH 29/3/27 (Norway))

9 ESPH 29 had for its consideration document ESPH 29/3/27 (Norway), seeking clarification on how to distinguish the entries "Used cooking oil" and "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" in chapter 17 of the IBC Code.

10 ESPH 29 recalled that:

.1 the two entries had identical GHPs;

.2 the generic entry for "Used cooking oil" had been assigned pollution category X as a precautionary measure;

.3 the entry for "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" was assigned pollution category Y and had been evaluated at ESPH 21 following consideration of document ESPH 21/3/14 (Belgium);

.4 "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" had been assigned footnote (n), which states that "Confirmation that the product is composed of Triglycerides, C16-C18 and C18 unsaturated shall be required in order for the entry to be used. Otherwise, the more generic entry "Used cooking oil (m)" must be used";

.5 Document ESPH 24/5/2 (Finland) proposed an additional analysis method to identify products as "Used cooking oil (Triglycerides, C16- C18 and C18 unsaturated)" and distinguish them from "Used cooking oil"; and

.6 ESPH 24 had noted that some port States apply a limit of 95% as a criterion to the triglycerides for a cargo to be shipped as "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" (PPR 6/3, paragraph 5.21).

11 ESPH 29 considered whether two entries were justified or if only one entry for "Used cooking oil" with pollution category X might be one way to resolve issues differentiating between the two entries. In this context, some delegations expressed the view that there was no functional difference between the entries within the geographic zone in which special requirement 16.2.7 was applicable due to the prewash requirements associated with 16.2.7 and that a single entry with pollution category X would be preferable. Other delegations, however, noted that the limited availability of MARPOL surveyors (required for prewashes associated with pollution category X cargoes) and reception facilities could be a problem outside the 16.2.7 geographical area if all used cooking oil cargoes were to be carried as pollution category X.

12 Having considered the views expressed, ESPH 29 agreed to proceed with the two entries for used cooking oil currently listed in chapter 17 of the IBC Code, and considered how best to provide clarifications on distinguishing the two products.

13 In this context, ESPH 29 agreed that the composition of the product, as set out in the section 1.3 of the PPR Product Data Reporting Form in the annex to document ESPH 21/3/14 should be used as the basis for any clarifications, because the assigned carriage requirements (including pollution category) had been based on the composition provided in this table.

14 In reviewing the table, ESPH 29 agreed that the relevant rows were those providing ranges for the components "Triglycerides, C16-C18, C18 unsaturated"; "Diglycerides, C16-18, C18 unsaturated"; "Monoglycerides, C16-C18, C18 unsaturated"; and "Fatty acids, C16-C18, C18 unsaturated." ESPH 29 agreed that these first four rows, in conjunction with the footnote below the table associated with these rows, clarified the range of each of these components while making clear that the sum of these four components (i.e., tri-, di- and monoglyceride and free fatty acid contents should not underrun 95% of the dried substance.

15 ESPH 29 also considered whether particular analysis methods should be specified. Having noted that document ESPH 24/5/2 had provided information on an analysis method to identify products as "Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)" and distinguishing them from "Used cooking oil", ESPH 29 agreed that, regardless of the analysis method used, the ranges in the first four rows of the table from document ESPH 21/3/14 and the information in the footnote to the table (see paragraph 16) should be used for cargo classification purposes, as reproduced below.

Table 1: Composition of Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated)

Component name	%	Range	Type
Triglycerides, C16-C18, C18 unsatd.		80 % – 100 %	Ester of glycerol and long-chain fatty acids, esterification complete
Diglycerides, C16-C18, C18 unsatd.		0.1 – 3%	Ester of glycerol and long-chain fatty acids, one OH-group of glycerol is not esterified
Monoglycerides, C16-C18, C18 unsatd.		0.1 – 3%	Ester of glycerol and long-chain fatty acids, two OH-groups of glycerol are not esterified
Fatty acids, C16-C18, C18 unsatd.		0.1 – 12%	Long-chain fatty acid

16 The sum of all tri-, di- and monoglyceride and free fatty acid contents shall not underrun 95% of dried substance. The industry will provide a schema of declaration analysis which contains also a verification of this limit by means of the saponification value in order to make sure that naming and real content match. The proposed limit of 95% is due only to expected precision data of the methods and the deviations which are caused by substances of different molecular weight.

Classification issues

17 With regard to the estimation of acute dermal toxicity, ESPH 29 noted that, with regard to the C2 rating, GESAMP/EHS 60 had considered how best to provide the ESPH Technical Group advice on interpreting an "NI" assignment and agreed:

.1 that its preferred approach in the absence of acute dermal toxicity data would be to assign an estimated C2 rating on a case-by-case basis to substances wherever possible, to enable evaluations by the ESPH Technical Group;

.2 that estimated C2 ratings would follow careful consideration of all information provided relevant to dermal toxicity, for example, any provided rationales in conjunction with acute oral toxicity data and, if appropriate, D1 and D2 ratings; and

.3 that it would continue its practice of noting in its report any relevant information that provided additional context for the estimated C2 rating.

Revision of MEPC.1/Circ.590 - expanded guidance on what can be considered as a cleaning additive for the cleaning of NLS cargo residues

18 ESPH 29 finalized the revision of MEPC.1/Circ.590 and agreed to invite the PPR Sub-Committee to agree to the draft revised tank cleaning additives guidance note and reporting form as set out in annex 7 to document PPR 11/3. Subsequently, ESPH 29 agreed that there was a need to re-evaluate the cleaning additives currently listed in annex 10 of the MEPC.2/Circular, taking into account, inter alia, the latest GESAMP Hazard Profiles and the revised guidance following its approval by MEPC.

19 ESPH 29 also agreed that subject to the PPR Sub-Committee endorsing its view in this regard, it would develop a timeline for the re-evaluation of existing cleaning additives and advise the Sub-Committee accordingly.

Consider the implications that the lack of toxic vapour detection equipment will have on the daily operation of chemical tankers

20 Following discussion regarding the lack of availability of toxic vapour detection equipment for many products in the revised chapter 17 of the IBC Code that were newly indicated as toxic, ESPH 29 agreed to progress the work with three concurrent workstreams:

.1 collecting available information on the identified products, such as vapour pressure or additional toxicological data, to identify products for revised C3 ratings through reassessment by GESAMP/EHS and/or revised carriage requirements through the application of the SVC/LC_{50} ratio method set out in accordance with section 21.7.12 of the IBC Code;

.2 continue researching and collecting information on available toxic vapour detection equipment to identify products that could be removed from the list; and

.3 consider additional approaches for addressing the remaining products on the list.

21 ESPH 29 was informed that interested Member States and international organizations would work intersessionally in an informal group, co-coordinated by Germany and INTERTANKO.

OUTCOMES OF PPR 11

Report of ESPH 29

22 Having noted the outcome of GESAMP/EHS 60, and having concurred with the evaluations of products and cleaning additives undertaken by ESPH 29, PPR 11:

.1 agreed to the draft Revised tank cleaning additives guidance note and reporting form with a view to subsequent approval by MEPC 82 and endorsed the view of the ESPH Technical Group that there was a need to re-evaluate the cleaning additives currently listed in annex 10 to the MEPC.2/Circular, taking into account, inter alia, the latest GESAMP Hazard Profiles and the revised guidance following its approval by MEPC; and

.2 noted the way forward that had been agreed by the Technical Group to make progress on the matter.

Amendments to MARPOL Annex II in order to improve the effectiveness of cargo tank stripping, tank washing operations and prewash procedures for products with a high melting point and/or high viscosity

23 PPR 11 recalled that:

.1 MEPC 79, following consideration of document MEPC 79/12 (Austria et al.), had agreed to include in the Committee's post-biennial agenda an output on "Amendments to MARPOL Annex II in order to improve the effectiveness of cargo tank stripping, tank washing operations and prewash procedures for products with a high melting point and/or high viscosity", assigning the PPR Sub-Committee as the associated organ, with two sessions needed to complete the output and with the understanding that the comments and concerns expressed at MEPC 79 (reproduced in document PPR 11/4) would be taken into account by the Sub-Committee; and

.2 PPR had agreed to include the output in the proposed provisional agenda for its eleventh session which was subsequently approved by MEPC 80.

24 Following discussion, PPR 11:

.1 noted the information in document PPR 11/INF.21 concerning ways to improve the effectiveness of cargo tank stripping, tank washing operations and prewash procedures for products with a high melting point and/or high viscosity, supplementing the information in document MEPC 79/12;

.2 referred documents PPR 11/4 (Secretariat) and PPR 11/INF.21 to ESPH 30 for further consideration, with a view to advising PPR 12 how to proceed; and

.3 agreed to include this output as an additional item in the provisional agenda of ESPH 30, and invited Member States and international organizations to submit concrete proposals to ESPH 30.

REPORT ON GESAMP ACTIVITES

25 The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) held its 50th session from 18 to 22 September 2023 at the International Seabed Authority (ISA) Headquarters in Kingston, Jamaica.

26 GESAMP was established in 1969 by a number of United Nations' Organizations as a Joint Group to encourage the independent, interdisciplinary consideration of marine pollution and environmental protection issues, with a view to avoiding duplication of efforts within the United Nations system. The main topics considered at this session are described below.

Evaluation of the hazards of harmful substances carried by ships (WG 1)

27 WG 1 met once since GESAMP 49. Data on seven new substances were evaluated and full GESAMP Hazard Profiles (GHPs) were assigned to all substances. The Group also considered approaches to estimating acute dermal toxicity ratings with the preferred approach to assign ratings on a case-by-case basis.

Review of applications for "active substances" to be used in ballast water management systems (WG 34)

28 WG 34 convened once since GESAMP 49 to evaluate four Ballast Water Management Systems (BWMS). The Working Group Chair outlined the evaluation process of the BWMS reports which helped GESAMP note parallels between WG 34 and WG 44 and the potential for similar evaluation systems to be developed for biofouling.

Atmospheric input of chemicals to the ocean (WG 38)

29 WG 38 organized a successful workshop on air/sea exchange to investigate the causes of large scale summer phytoplankton blooms that developed south of Madagascar and the role of atmospheric transport of nutrients from southern Africa in stimulating these blooms. The Working Group also drafted a Summary for Policymakers on *The Changing Acidity of the Global Atmosphere and Ocean and its Impact on Air/Sea Chemical Exchange* for the GESAMP Reports and Studies Series. The Group is also producing a document on the joint WG 38/40 workshop on the atmospheric transport of microplastics to and from the ocean.

Sources, fate and effects of plastics and microplastics in the marine environment (WG 40)

30 GESAMP discussed the close relationship between WG 40, WG 43 and WG 44 and their TORs for linkages and complementarity. The Chair will develop a document on what is to be delivered in the next workshop (the risk-assessment) and explore the synergies for a joint workshop with the three working groups. The risk assessment report will also provide an analysis of where there is a role for GESAMP in relation to plastic in the ocean.

Ocean interventions for climate change mitigation (WG 41)

31 Working Group 41 met in person once to review and examine elements of the Integrated Assessment Framework, to identify gaps and to ensure integration and consistency across the framework. The working group noted the growing interest in various ocean climate intervention proposals such as ocean carbon dioxide removal, in seaweed/biomass sinking and ocean alkalinity enhancement and the current focus on monitoring, reporting and verification (MRV) for carbon credits. The Working Group continues to provide support to the London Protocol Parties with the WG Chair engaged in the London Convention and London Protocol intersessional working groups on marine geoengineering.

Impacts of wastes and other matter in the marine environment from mining operations, including marine mineral mining (WG 42)

32 GESAMP noted that Volume A of the report on *Impacts of mine tailings waste matter in the marine environment from mining operations* was anticipated to be published by the end of 2023. It also noted the need to revise the original text and the TORs for the Working Group due to scientific advances and publications addressing potential environmental impacts of deep-sea mineral exploration.

Sea-based sources of marine litter including fishing gear and other shipping related litter (WG 43)

33 The Working Group had held duplicate virtual launch meetings intersessionally for member introductions and orientation to the TORs as well as an in-person meeting in May 2023 in Geneva followed up by two virtual meetings to report progress. The Working Group notified GESAMP that it envisages the completion of the report for Phase II by 1 November 2024.

Biofouling management (WG 44)

34 GESAMP noted the group's progress in the finalization of its report which is expected to be published before the end of 2023. GESAMP noted the proposal for the working group to continue for another year with a view to propose renewed TORs and clarification on sponsoring arrangements at the next annual session.

Climate change and greenhouse gas related impacts on contaminants in the ocean (WG 45)

35 The group held its first in-person meeting in September 2022 in Monaco where each sub-group presented its progress in gathering, compiling and reviewing available literature on the sensitivity of trace metals, organic pollutants and radionuclides to climate change drivers. The group also held a virtual meeting in April 2023 on further updates of its activities and the need for these to be extended to the end of 2024. The group has also produced two manuscripts for peer review journals and was preparing another paper titled *Climate change and persistent organic pollutants in the marine environment: a systematic review of multiple stressors* for submission to the journal *Communications, Earth & Environment*.

BBNJ Agreement:

36 GESAMP made note of the overview provided on the BBNJ Agreement adopted in June 2023 and its institutional arrangements and ways GESAMP may be able to provide input both under the Agreement and scientific input to the consultation process in relation to impact environmental assessments and capacity building.

The United Nations Decade of Ocean Science for Sustainable Development

37 GESAMP agreed to encourage its members to express their interest in becoming part of the Ocean Decade Advisory Board and to continue to make themselves available to the Decade as subject matter experts in reviewing the appropriateness and relevance of proposed Ocean Decade activities.

Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects (Regular Process)

38 GESAMP noted the update provided on the Regular Process with focus on expected outputs of the third cycle of the Process from 2021 to 2025 including the production of the third world ocean assessment (WOAIII), engagements with other ocean-related intergovernmental processes and on capacity building and encouraged members to consider participating in the production of WOA III as a Lead Author, a member of the Writing Team or a Peer Reviewer.

Other UN processes

39 GESAMP agreed for the Chair to discuss with the GESAMP Office the merits and modalities of GESAMP's participation to various events including the UNFCCCC process, the 2025 UN Ocean Conference, and the Consultative Process on a Pollution-free Planet.

Identification of new and emerging issues

40 GESAMP discussed the following new and emerging issues: 1) decarbonization; 2) valuation of GESAMP activities; and 3) underwater light and noise. GESAMP agreed to further investigate on how to undertake a valuation of GESAMP activities and to keep a watching brief on issues of underwater light and noise.

Scoping activities

41 GESAMP considered the progress of its Correspondence Groups that had been developing scoping papers in the intersessional period, including: 1) Sand and gravel mining in the marine environment: new insights on an growing environmental problem; 2) Update the information on sources of the main pollutants impacting the global marine environment (The 80/20 Conundrum); 3) Causes and impacts of massive accumulations of the brown macro-algae Sargassum in the nearshore environment of the Caribbean and West Africa; 4) Relevance of inputs of disinfection by-products (DBPs) into the marine environment; 5) Impact of armed conflicts on the marine environment and sustainable development; and 6) Task Team on Climate Change.

Strategic review of GESAMP

42 Following discussions of the first phase of the strategic review, GESAMP invited the Sponsoring Organizations to provide their comments and agreed to incorporate the contributions and influence article into the Strategic Review.

GESAMP side-event

43 The event titled "Enhancing understanding of deep-sea ecosystems and biodiversity for sustainable development and effective marine environmental protection" highlighted issues of deep-sea taxonomy to advance the understanding of deep-sea ecosystems including knowledge of connectivity and ecosystem functioning, that can support development of environmental management measures in areas beyond national jurisdiction.

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ANNEX 3

GESAMP HAZARD PROFILES FOR NEW SUBSTANCES SUBMITTED FOR EVALUATION TO GESAMP/EHS 61

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.

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No
2574	Alkenyl succinic anhydride derivatives, polymers	4	NI	4	NR	0	0	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	908338-38-5
2580	Fatty acids, tall-oil, maleated	2	NI	2	NR	2	0	(0)	(0)	(0)	NI	(0)	0	(0)	Ss	1	Fp	3	68139-89-9
2579	Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	(2)	(2)	(2)	NR	(5)	(2)	0	0	(3)	NI	(3)	(3)	(3)	Ss	1	Fp	3	68153-60-6
2578	Fatty acids, tall-oil, reaction products with polyethylenepolyamines, acetates	(4)	(2)	(2)	NR	(4)	(2)	1	(0)	(3)	NI	(3)	(3)	(3)	Ss	0	S	3	64754-93-4
2577	Ferric sulphate solution	Inorg	0	0	Inorg	3	0	(1)	(0)	1	NI	1	(2)	(3)		0	D	3	10028-22-5
2573	Maleic acid copolymer solution	0	NI	0	NR	1	0	0	0	(2)	NI	(2)	1	2		0	D	2	113221-69-5
2576	Palm oil, empty fruit bunch	(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(2)	NI	(2)	(2)	(2)		1	Fp	2	8002-75-3
2575	Tetrasodium 4-amino-3,6-bis(5-[4-chloro-6-(2-hydroxyethylamino)-1,3,5-triazin-2-ylamino]-2-sulphonatophenylazo)-5-hydroxynaphthalene-2,7-disulphonate (containing > 35% sodium chloride and sodium acetate)	0	NI	0	NR	0	0	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	85665-98-1

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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 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.

3 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).

Annex 4 - GESAMP/EHS Composite List
GESAMP Hazard Profiles

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
13	Acetic acid	0	0	0	R	1	NI	1	1	1	NI	1	3C	3		3	D	3	64-19-7	64	Acetic acid
12	Acetic anhydride	0	0	0	R	1	NI	1	0	2	NI	2	3	3	A	3	D	3	108-24-7	65	Acetic anhydride
2047	Acetochlor (ISO)	3	2	2	NR	4	NI	1	0	(1)	NI	(1)	0	0		1	S	2	34256-82-1	66	Acetochlor
15	Acetone	0	0	0	R	0	0	0	0	0	NI	0	1	2		4	DE	2	67-64-1	67	Acetone
14	Acetone cyanohydrin	0	0	0	R	4	NI	3	4	3	NI	3	(3)	(3)		2	D	3	75-86-5	68	Acetone cyanohydrin
16	Acetonitrile	0	0	0	R	1	NI	1	1	2	NI	2	1	2		4	D	2	75-05-8	69	Acetonitrile
2333	Acetonitrile (Low purity grade)	0	NI	0	R	3	NI	1	1	2	NI	2	1	2		4	D	2		2876	Acetonitrile (Low purity grade)
289	Acid mixtures (nitrating acid)	Inorg	NI	0	Inorg	(2)	NI	3	3	4	NI	4	3C	3		0	D	3		497	Nitrating acid (mixture of sulphuric and nitric acids)
23	Acrylamide	0	0	0	R	2	0	2	2	(2)	NI	(2)	1	2	CMSsN	0	D	3	79-06-1	70	Acrylamide solution (50% or less)
2553	Acrylamide (ACAM) – Acrylic acid, sodium salt (NaAA) Copolymer (70:30 ACAM:NaAA) in water/iso- and cyclo-alkanes (C12+)	(5)	NI	(5)	(NR)	(2)	(0)	(0)	(0)	(1)	NI	(1)	1	(2)	SsA	1	SD	2			
2536	Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (68:32 ACAM:AMPS)	0	NI	0	NR	1	0	(0)	(0)	(0)	NI	(0)	(0)	(0)		2	Fp	2		4245	Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (68:32 ACAM:AMPS)
2535	Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (70:30 ACAM:AMPS)	0	NI	0	NR	0	0	(0)	(0)	(0)	NI	(0)	(0)	(0)		2	Fp	2		4244	Acrylamide (ACAM) - Sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS) Copolymer (70:30 ACAM:AMPS)
2534	Acrylamide, polymer with sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS), tetraethylene glycol diacrylate, and methylene-bisacrylamide	0	NI	0	NR	1	0	0	0	(0)	NI	(0)	0	0		2	Fp	2		4243	Acrylamide, polymer with sodium 2-acrylamido-2-methyl-1-propanesulphonic acid (AMPS), tetraethylene glycol diacrylate, and methylene-bisacrylamide
2568	Acrylated ethylene vinyl acetate polymer in ethylhexanol and diethylene glycol	(1)	NI	(1)	NR	2	0	0	0	(2)	NI	(2)	0	2	Ss	2	Fp	3	246856-20-2		
24	Acrylic acid	0	0	0	R	4	NI	2	2	2	NI	2	3C	3		3	D	3	79-10-7	71	Acrylic acid
2406	Acrylic acid / dimethyldiallylammonium chloride copolymer, partial sodium salt (MWt 1500-4000, aqueous solution)	0	NI	0	R	0	0	0	0	(0)	NI	(0)	0	0		0	D	0		3682	Acrylic acid / dimethyldiallylammonium chloride copolymer, partial sodium salt (MWt 1500-4000, aqueous solution)
2417	Acrylic acid/ethenesulphonic acid copolymer with phosphonate groups, sodium salt (aqueous solution)	0	NI	0	NR	0	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0		3693	Acrylic acid/ethenesulphonic acid copolymer with phosphonate groups, sodium salt solution
25	Acrylonitrile	0	2	2	NR	3	0	2	3	3	NI	3	2	2	CMSs	4	DE	3	107-13-1	72	Acrylonitrile
1432	Acrylonitrile-styrene copolymer dispersion in polyether polyol (LOA)	NI	0	0	NI	1	NI	0	(0)	(0)	NI	(0)	0	(0)		1	S	0		73	Acrylonitrile-Styrene copolymer dispersion in polyether polyol
26	Adiponitrile	0	0	0	R	1	NI	3	(3)	3	NI	3	3	(3)		2	FD	3	111-69-3	74	Adiponitrile

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1488	Alachlor (ISO)	3	3	3	NI	4	1	1	0	(2)	NI	(2)	1	0	CSs	1	S	3	15972-60-8	75	Alachlor technical (90% or more)
293	Alcoholic beverages	0	0	0	R	0	0	0	0	0	NI	0	0	1		3	D	1		85	Alcoholic beverages, n.o.s.
2198	Alcoholic silicasol	0	0	0	R	0	0	0	0	0	NI	0	1	2		4	DE	2		2475	Tetraethyl silicate monomer/oligomer (20% in ethanol)
1482	Alcohol(C12-C16) poly(20 and above)ethoxylates	4	(3)	(3)	R	2	0	(0)	(0)	(2)	NI	(2)	2	1		1	D	2		78	Alcohol (C12-C16) poly(20+)ethoxylates
722	Alcohol(C6-C17)(secondary) poly(3-6)ethoxylate	4	3	3	R	4	2	0	(0)	(3)	NI	(3)	3	2		1	D	3		81	Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates
295	Alcohol(C6-C17)(secondary) poly(7-12)ethoxylate	3	3	3	R	4	1	1	0	(3)	NI	(3)	3	3		1	D	3		80	Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates
2488	Alcohol (C10-C18) poly (7) ethoxylate	NI	(3)	(3)	R	3	1	(1)	(0)	(2)	NI	(2)	(2)	(2)		1	D	2	85422-93-1	3979	Alcohol (C10-C18) poly (7) ethoxylate
2094	Alcohol (C8-C11) poly(2.5-9)ethoxylates	3	3	3	R	3	NI	1	0	(2)	NI	(2)	(2)	(2)		1	D	2		2209	Alcohol (C9-C11) poly(2.5-9)ethoxylate
294	Alcohol(C12-C16) poly(1-6) ethoxylates	5	3	3	R	4	1	0	0	(2)	NI	(2)	2	2		1	FD	2		77	Alcohol (C12-C16) poly(1-6) ethoxylates
1481	Alcohol(C12-C16) poly(7-19)ethoxylates	4	3	3	R	4	1	1	0	(3)	NI	(3)	3	3		1	D	3		79	Alcohol (C12-C16) poly(7-19)ethoxylates
2419	Alcohol(C12-C14)poly(2)ethoxylate sulphate, sodium salt (*)	2	NI	2	R	3	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI			
2279	Alcohols (C8-C11)	5	2	2	(R)	(3)	(1)	(0)	(0)	(2)	NI	(2)	(2)	(2)		2	Fp	2		2887	Alcohols (C8-C11), primary, linear and essentially linear
2039	Alcohols, C13 and above as individuals and mixtures	5	2	2	R	4	1	0	0	0	NI	0	(1)	(1)		2	Fp	2		86	Alcohols (C13+)
2547	Alcohols (C9-11), ethoxylated, phosphate	(0)	NI	(0)	R	3	1	0	0	(2)	NI	(2)	1	2		1	D	2	136504-88-6		
2450	Alcohols, C10-C16 ethoxylated propoxylated (*)	0	NI	0	R	3	NI	NI	NI	NI	NI	NI	NI	NI		1	NI	NI			
2566	Alcohols, C12-14 ethoxylated propoxylated	(0)	NI	(0)	R	3	1	0	(0)	(0)	NI	(0)	(1)	(3)		1	FD	3	68439-51-0		
2365	Alcohols, linear (C10-C14)	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(2)	NI	(2)	(2)	(2)		4	Fp	2		3128	Decyl/Dodecyl/Tetradecyl alcohol mixture
2294	Alcohols (C12-C13), linear	5	2	2	R	4	(1)	0	0	(1)	NI	(1)	1	1		1	Fp	2		2950	Alcohols (C12-C13), primary, linear and essentially linear
2293	Alcohols (C14-C18), linear	5	2	2	R	0	1	0	0	(1)	NI	(1)	1	1		1	Fp	2		2951	Alcohols (C14-C18), primary, linear and essentially linear
2202	Alkanes (C6-C9)	(5)	NI	(5)	(R)	(4)	NI	(0)	(0)	(1)	NI	(1)	(2)	(2)	N	4	FE	2		88	Alkanes (C6-C9)
2449	n-Alkanes (C9-C11)	(5)	NI	(5)	R	0	(0)	0	0	(0)	NI	(0)	1	0	A	3	F	3		3884	n-Alkanes (C9-C11)
296	n-Alkanes (C10-C20)	(5)	(5)	(5)	(R)	(0)	NI	(0)	(0)	(0)	NI	(0)	(1)	(1)	A	3	Fp	3		471	n-Alkanes (C10-C20)
2464	Alkanes (C5-C7), linear and branched	(5)	NI	(5)	(R)	(3)	(0)	0	0	0	NI	0	2	0	AN	4	E	2		3799	Alkanes (C5-C7), linear and branched

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2463	Alkanes (C10-C17), linear and branched	(5)	NI	(5)	R	0	1	0	0	(0)	NI	(0)	0	0	A	3	F	3		3815	Alkanes (C10-C17), linear and branched
2392	Alkanes (C10-C26), linear and branched	0	NI	0	R	0	NI	0	0	(1)	NI	(1)	1	1	A	3	F	3	90622-53-0	3562	Alkanes (C10-C26), linear and branched (flashpoint >60°C)
																				3736	Alkanes (C10-C26), linear and branched (flashpoint ≤60°C)
2511	Alkanes (C9-C24) linear, branched and cyclic	(5)	(4)	(4)	NR	(2)	(1)	0	(0)	0	NI	0	(2)	0	A	3	F	3		3998	Alkanes (C9-C24) linear, branched and cyclic (flashpoint >60°C)
																				4250	Alkanes (C9-C24) linear, branched and cyclic (flashpoint ≤60°C)
2510	Alkanes (C4-C12) linear, branched and cyclic (containing benzene up to 1%)	(4)	(4)	(4)	R	(3)	(2)	0	0	0	NI	0	2	(1)	CMA	4	F	3		3999	Alkanes (C4-C12) linear, branched and cyclic
334	Alkane (C14-C17) sulphonic acid, sodium salt (60-65% solution)	2	2	2	R	3	1	0	0	(2)	NI	(2)	2	2		1	D	2		1153	Sodium alkyl (C14-C17) sulphonates (60-65% solution)
1974	Alkaryl polyether (C9-C20) (LOA)	4	NI	4	NR	3	NI	0	0	(3)	NI	(3)	2	3		1	S	2		90	Alkaryl polyethers (C9-C20)
2376	Alkenoic acid ester, borated	5	(3)	(3)	R	2	NI	0	0	(2)	NI	(2)	2	0		1	Fp	2			
1858	Alkenylamide, long chain, more than C10	3	NI	3	(NR)	4	NI	0	(0)	(1)	NI	(1)	0	1		1	Fp	2		838	Alkenyl (C11+) amide
298	Alkenyl succinic anhydride	0	0	0	NR	1	NI	0	0	(2)	NI	(2)	2	(2)	SsSr	1	FD	2		2336	Alkenyl (C16-C20) succinic anhydride
2574	Alkenyl succinic anhydride derivatives, polymers	4	NI	4	NR	0	0	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	908338-38-5		
299	Alkyl acrylate/Vinyl pyridine copolymer in toluene	2	2	2	R	2	0	0	0	(2)	NI	(2)	2	2	RAN	4	F/Fp	3		94	Alkyl acrylate/vinylpyridine copolymer in toluene
1433	Alkyl amine, alkenyl acid ester, mixture	NI	NI	NI	NI	1	NI	(0)	(0)	NI	NI	NI	NI	NI		1	Fp	2		98	Alkyl(C8+)amine, Alkenyl (C12+) acid ester mixture
2267	Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	4	4	4	R	4	4	0	0	(1)	NI	(1)	1	0		1	S	1		280	Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)
2273	Alkylated phenols (C4-C9)	0	2	0	NR	1	0	1	0	(2)	NI	(2)	1	1		1	Fp	2		2575	Alkylated (C4-C9) hindered phenols
300	Alkylbenzene distillation bottoms	0	2	2	NR	0	(3)	0	0	1	NI	1	1	1		1	Fp	2		3106	Alkylbenzene distillation bottoms
1872	Alkyl (C12-C15) benzene/indane/indene mixture	0	4	4	NR	0	NI	0	0	0	NI	0	0	2		1	FE	2		103	Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)
2303	Alkylbenzene mixtures (containing at least 50% of toluene)	(2)	(2)	(2)	(R)	(3)	(0)	0	0	(2)	NI	(2)	2	2	CMRAN	4	FE	3		2909	Alkylbenzene mixtures (containing at least 50% of toluene)
2206	Alkyl (C3-C4) benzenes	(3)	NI	(3)	R	4	NI	0	0	(2)	NI	(2)	(2)	(1)		3	FE	2		91	Alkyl (C3-C4) benzenes
2207	Alkyl (C5-C8) benzenes	5	4	4	(NR)	4	NI	0	0	(2)	NI	(2)	(2)	(1)		2	F	2		92	Alkyl (C5-C8) benzenes
2423	Alkylbenzenes mixture (containing less than 1% naphthalene)	3	3	3	NR	4	NI	0	0	(2)	NI	(2)	2	1	A	2	F	3		3600	Alkylbenzenes mixture (containing less than 1% naphthalene)
2424	Alkylbenzenes mixtures (containing naphthalene)	(3)	(3)	(3)	(NR)	(4)	NI	0	0	(1)	NI	(1)	1	1	A	2	F	3		3966	Alkylbenzenes mixtures (containing naphthalene)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1783	Alkyl benzenes, C9-C17 (straight or branched)	0	4	4	NR	1	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	F	1		100	Alkyl(C9+)benzenes
301	Alkyl(C11-C13)benzenesulphonates, straight chain	3	3	3	R	3	1	1	(1)	(3)	NI	(3)	2	3		1	FD	3	42615-29-2	102	Alkylbenzene sulphonic acid, sodium salt solution
2517	Alkyl (C3-C11) benzenes with phenol-formaldehyde/acrylate polymers (33% or less)	4	NI	4	NR	2	0	0	0	(2)	(0)	(0)	(2)	(2)	MSsA	3	F	3		4198	Alkyl (C3-C11) benzenes with phenol-formaldehyde/acrylate polymers (33% or less)
2504	Alkyl(branched C10-C18, C12 rich)phenols	0	4	4	NR	5	3	0	0	(3)	NI	(3)	3	3	R	1	Fp	3		4070	Alkylphenols (C10-C18, C12 rich)
2447	Alkyl/cyclo(C4-C5)alcohols	(1)	(1)	(1)	(R)	(2)	(0)	(1)	(1)	(2)	NI	(2)	(2)	(3)		1	FED	3		3962	Alkyl/cyclo (C4-C5) alcohols
2236	Alkyl dithiocarbamate (C19-C35)	0	NI	0	NI	1	NI	0	0	(0)	NI	(0)	0	0		1	S	0		2538	Alkyl dithiocarbamate (C19-C35)
1981	Alkyl dithio thiadiazole (C6-C24) (LOA)	5	NI	5	NR	1	NI	0	0	(0)	NI	(0)	0	0		1	S	2		104	Alkyl dithiothiadiazole (C6-C24)
1986	Alkyl(C4-C20) ester copolymer (LOA)	NI	0	0	NR	0	NI	0	0	(0)	NI	(0)	0	0		2	Fp	2		2202	Alkyl ester copolymer (C4-C20)
2425	Alkylnaphthalenes, crude (containing less than 1% naphthalene)	4	4	4	R	4	NI	0	0	(1)	NI	(1)	1	1	CA	1	F	3		3601	Alkylnaphthalenes (containing less than 1% naphthalene), crude
2426	Alkylnaphthalenes, crude (containing naphthalene)	(4)	(4)	(4)	(R)	(4)	NI	0	0	(1)	NI	(1)	1	1	CA	0	F	3		3699	Alkylnaphthalenes (containing naphthalenes), crude
8	Alkyl (C7-C9) nitrates	4	NI	4	NR	3	NI	0	0	(3)	NI	(3)	2	(3)		2	F	3		93	Alkyl (C7-C9) nitrates
1985	Alkyl(C8-C40)phenol sulphide (LOA)	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	1	1		1	FD	1		2253	Alkyl (C8-C40) phenol sulphide
2096	Alkyl(C8-C9)phenylamine, in aromatic solvent (LOA)	2	NI	2	NR	3	NI	(0)	(0)	(2)	NI	(2)	2	2		3	S	2		2200	Alkyl (C8-C9) phenylamine in aromatic solvents
2188	Alkyl (C9-C15) phenyl propoxylate	0	NI	0	NR	0	NI	0	0	(2)	NI	(2)	2	2		1	FD	2		2430	Alkyl (C9-C15) phenyl propoxylate
2134	Alkyl[(C8-C10)/(C12-C14)]:(<40%/>60%)polyglucoside mixture solution (max 55% active material)	3	NI	3	R	3	0	0	0	(3)	NI	(3)	2	3		1	D	3	141464-42-8	2248	Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)
2135	Alkyl[(C8-C10)/(C12-C14)]:(>60%/<40%)polyglucoside mixture solution (max 55% active material)	3	NI	3	R	2	0	0	0	(2)	NI	(2)	2	2		1	D	2	141464-42-8	2246	Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)
2136	Alkyl(C8-C10)polyglucoside solution (max 65% active material)	1	NI	1	R	2	0	0	0	(2)	NI	(2)	2	2		1	D	2	68515-73-1	2245	Alkyl (C8-C10) polyglucoside solution (65% or less)
2137	Alkyl(C12-C14)polyglucoside solution (max 55% active material)	3	NI	3	R	3	0	0	0	(3)	NI	(3)	2	3		1	D	3	110615-47-9	2249	Alkyl (C12-C14) polyglucoside solution (55% or less)
2133	Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	3	NI	3	R	2	0	0	0	(3)	NI	(3)	2	(3)		1	D	3		2247	Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)
2480	Alkyl (C10-C15, C12 rich) phenol poly(4-12)ethoxylate	(5)	(4)	(4)	(NR)	(2)	NI	(0)	(0)	(2)	NI	(2)	(2)	(1)		1	SD	2		3953	Alkyl (C10-C15, C12 rich) phenol poly(4-12)ethoxylate
1878	Alkylsulphonic acid ester of phenol (MESAMOLL)	5	NI	5	NR	0	NI	0	(0)	(0)	NI	(0)	0	0		1	S	0	91082-17-6	1701	Alkyl sulphonic acid ester of phenol
2374	Alkyltoluenes	0	2	2	NR	0	NI	0	(0)	(1)	NI	(1)	0	1		1	Fp	2		3148	Alkyl (C18+) toluenes

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2404	Alkyl(C18-C28)toluenesulphonic acid, calcium salts, borated (up to 70% in mineral oil)	0	4	4	NR	0	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)	Ss	1	S	2		3661	Alkyl(C18-C28)toluenesulphonic acid, calcium salts, borated
2373	Alkyl(C18-C28)toluenesulphonic acid, calcium salts, high overbase (up to 70% in mineral oil)	(0)	(4)	(4)	(NR)	(0)	NI	0	0	(0)	NI	(0)	0	0	Ss	1	S	2		3149	Alkyl (C18-C28) toluenesulphonic acid, calcium salts, high overbase
2409	Alkyl(C18-C28)toluenesulphonic acid, calcium salts, low overbase (up to 60% in mineral oil)	0	4	4	NR	0	NI	0	0	(2)	NI	(2)	2	0	Ss	1	Fp	3		3685	Alkyl (C18-C28) toluenesulphonic acid, calcium salts, low overbase
2429	Alkyl(C18-C28)toluenesulphonic acid (>90% in mineral oil)	0	4	4	NR	3	NI	0	0	(3)	NI	(3)	2	3	Ss	1	Fp	3		3658	Alkyl(C18-C28)toluenesulphonic acid
28	Allyl alcohol	0	0	0	R	4	NI	2	3	3	NI	3	2	3	A	4	D	3	107-18-6	105	Allyl alcohol
336	Aluminium chloride/hydrogen chloride solution	Inorg	NI	2	Inorg	3	1	1	(0)	3	NI	3	(3C)	3		0	D	3		110	Aluminium chloride (30% or less)/Hydrochloric acid (20% or less) solution
2438	Aluminium hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)	Inorg	0	0	Inorg	3	NI	0	0	(3)	NI	(3)	3B	(3)		0	D	3		3807	Aluminium hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)
2205	Aluminium sulphate solution	Inorg	2	2	Inorg	3	1	1	(0)	(3)	NI	(3)	(2)	(3)		0	D	3		111	Aluminium sulphate solution
2513	Amides, coco, N-[3-(dibutylamino) propyl], acrylates	(4)	NI	(4)	NR	4	NI	0	0	(2)	NI	(2)	2	2		1	Fp	2	851545-09-0		
75	2-(2-Aminoethoxy) ethanol	0	0	0	NR	1	0	0	1	(3)	NI	(3)	3	3		1	D	3	929-06-6	37	2-(2-Aminoethoxy) ethanol
68	Aminoethylethanolamine	0	0	0	NR	1	0	0	0	(3)	NI	(3)	3B	2	SsSr	1	D	3	111-41-1	112	Aminoethyl ethanolamine
74	Aminoethylethanolamine/Aminoethyldiethanolamine solution	Inorg	0	0	NR	1	0	(0)	(0)	(3)	NI	(3)	(3B)	(2)	SsSr	1	D	3		113	Aminoethyldiethanolamine/Aminoethylethanolamine solution
88	N-Aminoethylpiperazine	0	0	0	NR	1	NI	0	2	(3)	NI	(3)	3	3	Ss	2	D	3	140-31-8	472	N-Aminoethylpiperazine
89	2-Amino-2-(hydroxymethyl)-1,3-propanediol solution (40% or less)	0	NI	0	NI	1	NI	0	0	NI	NI	NI	NI	NI		0	D	NI	77-86-1	38	2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less)
90	2-Amino-2-methyl-1-propanol	0	0	0	NR	1	NI	0	0	(3)	NI	(3)	3	3		2	DE	3	124-68-5	39	2-Amino-2-methyl-1-propanol
91	Ammonia (anhydrous and aqueous, 28% or less)	0	0	0	R	3	2	1	(2)	3	NI	3	3	3		0	DE	3	7664-41-7	114	Ammonia aqueous (28% or less)
1730	Ammonium bisulphite solution, greater than 15%	NI	NI	NI	NI	1	NI	NI	NI	NI	NI	NI	2	2		0	D	2	10192-30-0	115	Ammonium bisulphite solution (70% or less)
2388	Ammonium chloride solution (less than 25%)	0	NI	0	Inorg	1	0	0	(0)	(2)	NI	(2)	2	2		0	D	2	12125-02-9	3411	Ammonium chloride solution (less than 25%) (*)
2086	Ammonium lignosulphonate (46% solution in water)	0	NI	0	NR	0	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0	8061-53-0	118	Ammonium lignosulphonate solutions
1912	Ammonium nitrate solutions	Inorg	0	0	Inorg	1	NI	0	0	(2)	NI	(2)	1	2		0	D	2		119	Ammonium nitrate solution (93% or less) (*)
1764	Ammonium polyphosphate solution	Inorg	0	0	Inorg	1	NI	0	0	0	NI	0	1	0		0	D	1	10-34-0	120	Ammonium polyphosphate solution

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
99	Ammonium sulphate	0	0	0	Inorg	1	(0)	0	(0)	(0)	NI	(0)	0	0		0	D	0	7783-20-2	121	Ammonium sulphate solution
310	Ammonium sulphide solution (45% or less)	Inorg	0	0	Inorg	3	NI	1	0	(2)	NI	(2)	2	2	N	4	D	2	12124-99-1	122	Ammonium sulphide solution (45% or less) (*)
1732	Ammonium thiocyanate/ Ammonium thiosulphate solution	Inorg	0	0	Inorg	1	NI	1	NI	NI	NI	NI	NI	NI		0	D	NI		123	Ammonium thiocyanate (25% or less)/Ammonium thiosulphate (20% or less) solution
312	Ammonium thiosulphate solution (60% or less)	Inorg	0	0	Inorg	1	NI	0	(0)	(1)	NI	(1)	(1)	(1)		0	D	1	7783-18-8	124	Ammonium thiosulphate solution (60% or less)
255	Amyl acetate	2	2	2	NR	2	NI	0	(0)	0	NI	0	1	1		4	FED	2	628-63-7	125	Amyl acetate (all isomers)
2428	tert-Amyl ethyl ether	3	NI	3	NR	1	NI	0	(0)	0	NI	0	2	2		4	E	2		3623	tert-Amyl ethyl ether
2141	tert-Amyl methyl ether	1	NI	1	NI	4	NI	1	0	2	NI	2	0	1		4	ED	2		2210	tert-Amyl methyl ether
1484	Amyl propionate	2	NI	2	R	2	NI	0	0	(2)	NI	(2)	2	1		3	F	2	624-54-4	484	n-Pentyl propionate
261	Aniline	0	0	0	R	3	2	2	2	3	NI	3	1	3	CSsT	2	FD	3	62-53-3	127	Aniline
275	Apple juice	0	NI	0	R	0	0	0	0	0	NI	0	0	0		0	D	0		130	Apple juice
1979	Aryl polyolefin (C11-C50) (LOA)	NI	NI	0	NR	0	NI	0	0	0	NI	0	0	0		1	Fp	2		131	Aryl polyolefins (C11-C50)
2421	L-Aspartic acid, homopolymer, sodium salt (aqueous solution)	0	0	0	NR	0	NI	0	(0)	0	NI	0	0	0		0	D	0		3697	L-Aspartic acid, homopolymer, sodium salt (aqueous solution)
286	Aviation alkylates (C8 paraffins and iso-paraffins BPt 95-120 Celcius)	(5)	NI	(5)	(R)	(4)	NI	0	0	(0)	NI	(0)	(0)	(0)		4	FE	2		132	Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)
2436	Aziridine polymer with methyloxirane (78% in diethylene glycol monoethyl ether)	0	NI	0	NR	2	0	0	0	0	NI	0	1	0		2	Fp	2		3751	Aziridine polymer with methyloxirane (78% in diethylene glycol monoethyl ether)
1978	Barium long chain alkaryl sulphonate (C11-C50) (LOA)	4	NI	4	NR	3	NI	2	0	(2)	NI	(2)	0	0		1	S	2		2370	Barium long chain (C11-C50) alkaryl sulphonate
2498	Benzaldehyde	1	NI	1	R	3	NI	1	(1)	2	NI	2	2	2		2	FD	2	100-52-7	4132	Benzaldehyde
324	Benzene	2	1	1	R	2	NI	1	0	0	NI	0	2	2	CMT	4	E	3	71-43-2	133	Benzene and mixtures having 10% benzene or more (i)
2378	Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear	0	3	3	NR	3	0	0	0	(0)	NI	(0)	0	0		1	Fp	2		3405	Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear
320	Benzene sulphonyl chloride	1	1	1	R	3	NI	1	(2)	(3)	NI	(3)	3	3	Ss	1	SD	3	98-09-9	134	Benzene sulphonyl chloride
1733	1,2,4-Benzene tricarboxylic acid, trioctyl ester	0	0	0	NR	0	NI	0	(0)	2	NI	2	1	1		1	Fp	2		136	Benzenetricarboxylic acid, trioctyl ester
348	Benzyl acetate	1	NI	1	R	3	1	1	0	2	NI	2	1	1		1	SD	2	140-11-4	138	Benzyl acetate
349	Benzyl alcohol	1	NI	1	R	2	NI	1	1	2	NI	2	2	2		1	SD	2	100-51-6	139	Benzyl alcohol
352	Benzyl chloride	NI	1	1	R	3	1	1	(2)	3	NI	3	3	3	CSsA	3	S	3	100-44-7	140	Benzyl chloride
2437	Bis(2-ethylhexyl) terephthalate	0	3	3	R	0	0	0	0	(1)	NI	(1)	1	1		1	Fp	2		3752	Bis(2-ethylhexyl) terephthalate
2110	N,N-Bis(2-hydroxyethyl)oleamide (LOA)	5	NI	5	NR	NI	NI	0	0	(2)	NI	(2)	2	2		4	Fp	2		2201	N,N-bis(2-hydroxyethyl) oleamide

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2483	Bismuth oxide	Inorg	(0)	(0)	Inorg	(0)	(0)	0	(0)	0	NI	0	0	0		0	S	0	1304-76-3	4059	Bismuth oxide
2444	Bis[3-(triethoxysilyl)propyl]amine	1	NI	1	R	1	NI	0	0	(2)	NI	(2)	2	2		1	D	2	13497-18-2		
359	Borax, anhydrous or hydrated, crude or refined	Inorg	0	0	Inorg	1	0	0	0	(1)	NI	(1)	1	1	R	0	S	3	1303-96-4	143	Borax
360	Boric acid	Inorg	0	0	Inorg	1	0	0	(0)	(1)	NI	(1)	1	1	R	0	S	3	10043-35-3	2254	Boric acid
2562	Brassica carinata oil containing less than 3% free fatty acids	(0)	NI	(0)	(R)	(2)	NI	(0)	(0)	(0)	NI	(0)	(1)	(1)		1	Fp	2		4320	Brassica carinata oil
2084	Bromochloromethane	1	1	1	NR	1	NI	0	0	0	NI	0	1	0		0	SD	1	74-97-5	145	Bromochloromethane
2229	1-Bromopropane	2	NI	2	NI	NI	NI	0	(0)	0	NI	0	(2)	(2)		2	SD	2		2696	1-Bromopropane
381	Butanol	0	(0)	0	R	0	NI	0	0	0	NI	0	2	3		3	D	3	71-36-3	474	n-Butyl alcohol
																				2216	Butyl alcohol (all isomers)
383	sec-Butanol	0	(0)	0	R	0	NI	0	0	0	NI	0	0	2		3	D	2	78-92-2	638	sec-Butyl alcohol
384	tert-Butanol	0	0	0	NR	1	NI	0	0	0	NI	0	1	3		4	D	3	75-65-0	686	tert-Butyl alcohol
385	2-Butanone	0	NI	0	R	1	0	0	0	1	NI	1	2	2		4	DE	2	78-93-3	446	Methyl ethyl ketone
386	Butene oligomer	0	NI	0	NR	(4)	0	0	0	0	NI	0	0	1		4	FE	2		146	Butene oligomer
2446	2-Butoxyethanol/hyperbranched polyesteramide mixture	NI	NI	(0)	NR	(2)	NI	1	2	2	NI	2	1	2		2	D	2		3901	2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)
387	Butyl acetate	1	NI	1	R	2	NI	0	0	0	NI	0	0	1		4	FED	2	123-86-4	147	Butyl acetate (all isomers)
390	Butyl acrylate	2	NI	2	R	3	NI	1	1	1	NI	1	2	2	SsA	4	FED	2	141-32-2	148	Butyl acrylate (all isomers)
392	Butylamine	0	NI	0	R	2	NI	2	2	3	NI	3	3C	3		4	DE	3	109-73-9	154	Butylamine (all isomers)
1774	Butyl benzene	4	NI	4	NI	4	1	0	0	(2)	NI	(2)	2	1		3	Fp	2	104-51-8	155	Butylbenzene (all isomers)
398	Butyl benzyl phthalate	4	4	4	R	4	2	0	0	(0)	NI	(0)	(0)	(0)	R	1	S	3	85-68-7	149	Butyl benzyl phthalate
399	Butyl butyrate	2	NI	2	(R)	2	NI	0	0	(1)	NI	(1)	1	NI		3	FE	2	109-21-7	150	Butyl butyrate (all isomers)
2295	Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	(5)	NI	(5)	(R)	(3)	NI	0	0	0	NI	0	2	2	Ss	3	FE	2		153	Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture
953	Butylene glycol methyl ether acetate	1	1	1	R	3	NI	0	(0)	(1)	NI	(1)	1	1		2	FED	1	4435-53-4	58	3-Methoxybutyl acetate
952	Butylene glycol monomethyl ether	0	NI	0	R	1	NI	0	0	(1)	NI	(1)	0	1		3	D	1	2517-43-3	57	3-Methoxy-1-butanol
402	Butylene glycol(s)	0	NI	0	R	1	NI	1	0	0	NI	0	0	0		2	D	1	110-63-4	156	Butylene glycol
403	1,2-Butylene oxide	0	NI	0	NR	2	NI	1	1	2	NI	2	2	2	C	4	DE	3	106-88-7	8	1,2-Butylene oxide
409	Butyl methacrylate	2	NI	2	NR	1	NI	0	0	0	NI	0	2	2	Ss	3	FE	2	97-88-1	151	Butyl methacrylate
410	Butyl octyl phthalate	5	NI	5	(R)	0	2	0	(0)	(1)	NI	(1)	(1)	(1)		NI	Fp	2	84-78-6	2749	Butyl octyl phthalate
2434	Butyl phosphate/dibutyl phosphate mixture	2	NI	2	R	1	0	0	(0)	(3)	NI	(3)	2	3		2	D	3		3749	Butyl phosphate/dibutyl phosphate mixture
1483	Butyl propionate	2	NI	2	R	2	NI	0	0	0	NI	0	1	1		3	FED	2	590-01-2	476	n-Butyl propionate
2490	1-Butylpyrrolidin-2-one	1	(1)	1	R	1	0	1	0	0	NI	0	1	2		1	D	2	3470-98-2		

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
413	Butyl stearate	0	NI	0	(R)	0	NI	0	NI	NI	NI	NI	2	NI		1	Fp	2	123-95-5	152	Butyl stearate
416	Butyraldehyde	1	NI	1	R	2	0	0	1	0	NI	0	3	3		4	DE	3	123-72-8	157	Butyraldehyde (all isomers)
418	Butyric acid	0	NI	0	R	2	0	0	0	0	NI	0	3A	3		2	D	3	107-92-6	158	Butyric acid
420	Butyrolactone	0	NI	0	R	(3)	NI	1	(0)	0	NI	0	0	1	C	1	D	3	96-48-0	360	gamma-Butyrolactone
70	Calcium alkyl (long chain) salicylate (overbased) in mineral oil (LOA)	0	NI	0	NR	2	NI	0	0	(1)	NI	(1)	(1)	(1)	Ss	1	Fp	3		166	Calcium long-chain alkyl salicylate (C13+)
1435	Calcium alkyl phenol sulphide,polyolefin phosphorosulphide mixture (LOA)	NI	NI	NI	NR	4	NI	0	0	(0)	NI	(0)	NI	NI		1	NI	NI		160	Calcium alkyl (C9) phenol sulphide/Polyolefin phosphorosulphide mixture
2015	Calcium alkyl salicylate	3	NI	3	NR	2	NI	0	0	(2)	NI	(2)	2	2		1	Fp	2		3152	Calcium alkyl (C10-C28) salicylate
427	Calcium bromide (solutions)	Inorg	NI	0	Inorg	0	0	(0)	(0)	(2)	NI	(2)	(1)	(2)		0	D	2	7789-41-5	308	Drilling brines (containing calcium bromide)
2016	Calcium carbonate slurry	Inorg	0	0	Inorg	0	NI	0	(0)	(0)	NI	(0)	0	0		0	S	0	471-34-1	161	Calcium carbonate slurry
2519	Calcium chloride solution	Inorg	0	0	Inorg	0	0	1	0	(1)	NI	(1)	1	1		0	D	0	10043-52-4	4227	Calcium chloride solution (less than 35%) (*)
431	Calcium hydroxide	Inorg	0	0	Inorg	2	NI	0	(0)	(2)	NI	(2)	1	2		0	S	2	1305-62-0	162	Calcium hydroxide slurry
432	Calcium hypochlorite solutions containing 15% Ca(OCl)2 or more	Inorg	0	0	Inorg	5	NI	1	0	2	NI	2	3A	3		0	D	3	7778-54-3	164	Calcium hypochlorite solution (more than 15%)
2073	Calcium hypochlorite solutions containing less than 15% but more than 1.5% Ca(OCl)2	Inorg	0	0	Inorg	(4)	NI	1	0	2	NI	2	3A	3		0	D	3	7778-54-3	163	Calcium hypochlorite solution (15% or less)
2087	Calcium lignosulphonate (52% solution in water)	0	NI	0	NR	0	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0	8061-52-7	165	Calcium lignosulphonate solutions
1973	Calcium long chain alkaryl sulphonate (C11-C50) (LOA)	NI	0	0	NR	0	NI	0	0	(1)	NI	(1)	1	1		1	FD	1		169	Calcium alkaryl sulphonate (C11-C50)
2106	Calcium long chain alkyl (C5-C10) phenate (LOA)	0	NI	0	NR	2	NI	0	0	(0)	NI	(0)	0	0		1	FD	1		168	Calcium long-chain alkyl (C5-C10) phenate
2097	Calcium long chain alkyl (C11-C40) phenate (LOA)	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2		167	Calcium long-chain alkyl (C11-C40) phenate
1756	Calcium long chain alkyl phenate sulphide (C8-C40) (LOA)	0	NI	0	NR	1	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2		170	Calcium long-chain alkyl phenate sulphide (C8-C40)
1728	Calcium long-chain alkyl phenolic amine (C8-C40)	NI	NI	NI	NR	0	NI	0	0	(1)	NI	(1)	1	(1)		1	Fp	2			
2383	Calcium long-chain alkyl (C18-C28) salicylate	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	1	0	Ss	1	Fp	3		3426	Calcium long-chain alkyl (C18-C28) salicylate
1803	Calcium nitrate	Inorg	0	0	Inorg	0	NI	0	(0)	(1)	NI	(1)	1	1		0	D	1	10124-37-5	172	Calcium nitrate solutions (50% or less)
1734	Calcium nitrate/ Magnesium nitrate/Potassium chloride solution	Inorg	0	0	Inorg	1	0	0	(0)	(1)	NI	(1)	(1)	1		0	D	1		173	Calcium nitrate/Magnesium nitrate/Potassium chloride solution
2440	Camelina oil	(0)	NI	(0)	(R)	(0)	(0)	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2	68956-68-3	3767	Camelina oil

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1897	Camphor oil, white	NI	NI	NI	NI	NI	NI	2	NI	(2)	NI	(2)	1	NI		3	FE	2	8008-51-3	174	Camphor oil
436	Caprolactam	0	NI	0	R	1	0	1	1	2	NI	2	1	2		1	D	3	105-60-2	310	epsilon-Caprolactam (molten or aqueous solutions)
437	Carbolic oil	(3)	3	(3)	(NR)	(3)	(1)	2	2	3	NI	3	3	3	CMATN	2	FED	3		176	Carbolic oil
439	Carbon disulphide	2	1	1	NR	3	NI	2	(3)	4	NI	4	3A	3	RN	4	SD	3	75-15-0	177	Carbon disulphide
2567	Carboxylated phosphonated sodium allyl sulphonate polymer	0	NI	0	NR	0	0	(0)	(0)	(3)	NI	(3)	(3)	(3)	Ss	2	D	3	1416427-49-0		
443	Cashew nut shell oil (untreated)	0	NI	0	R	0	NI	(0)	(0)	(2)	NI	(2)	2	(2)	Ss	1	Fp	3		179	Cashew nut shell oil (untreated)
2314	Castor oil (containing less than 10% free fatty acids)	0	NI	0	R	(2)	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2		3044	Castor oil
2384	Cesium formate solution	0	3	3	Inorg	2	NI	1	0	(2)	NI	(2)	2	2		NI	D	2	3495-36-1	3421	Cesium formate solution (*)
445	Cetyl/Eicosyl methacrylate (mixture)	0	NI	0	(NR)	(0)	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2		180	Cetyl/Eicosyl methacrylate mixture
2024	Chlorinated paraffins (C18 and above) with any level of chlorine	0	4	4	NR	0	2	0	0	(1)	NI	(1)	(1)	(1)	C	1	S	3		183	Chlorinated paraffins (C18+) with any level of chlorine
2021	Chlorinated paraffins (C10-C13) with 60% chlorine or more	5	5	5	NR	5	2	0	0	(1)	NI	(1)	1	1	C	0	S	3		181	Chlorinated paraffins (C10-C13)
2020	Chlorinated paraffins (C10- C13) with less than 60% chlorine	5	5	5	NR	5	3	(0)	(0)	(1)	NI	(1)	(1)	(1)	C	1	S	3		2832	Chlorinated paraffins (C10-C13) (60% chlorine or less)
2112	Chlorinated paraffins (C14-C17) with less than 1% shorter chain length	5	4	4	NR	6	3	0	0	(2)	NI	(2)	2	2	C	1	S	3		182	Chlorinated paraffins (C14-C17) (with 50% chlorine or more, and less than 1% C13 or shorter chains)
450	Chloroacetic acid	0	NI	0	R	2	0	2	3	(4)	NI	(4)	3C	3	A	1	D	3	79-11-8	184	Chloroacetic acid (80% or less)
456	Chlorobenzene	2	2	2	NR	3	0	1	0	2	NI	2	2	0		3	S	2	108-90-7	185	Chlorobenzene
463	Chlorohydrins	0	NI	0	R	0	NI	(2)	(2)	(3)	NI	(3)	(3A)	3	C	3	D	3	96-24-2	187	Chlorohydrins (crude)
2286	N-(3-Chloro-2-hydroxypropyl) trimethylammonium chloride solution (75% or less)	0	0	0	NR	1	NI	0	0	(2)	NI	(2)	0	(2)	C	0	D	3		2579	N-(3-Chloro-2-hydroxypropyl)trimethyl ammonium chloride solution (75% or less)
1536	4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	2	NI	2	NI	2	NI	1	0	2	NI	2	1	1		0	S	2		62	4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution
467	Chloronitrobenzenes	2	2	2	NR	3	NI	2	2	2	NI	2	1	1		1	S	2	25167-93-5	533	o-Chloronitrobenzene
1772	1-(4-Chlorophenyl)-4,4-dimethyl-3-pentanone	3	3	3	NR	3	NI	0	0	(1)	NI	(1)	1	0		1	S	1		21	1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one
474	2-Chloropropionic acid	0	NI	0	R	1	NI	1	(3)	2	NI	2	3A	3		1	D	3	598-78-7	36	2- or 3-Chloropropionic acid
478	3-Chloropropylene	1	1	1	R	3	NI	1	0	2	NI	2	1	3	T	4	E	3	107-05-1	106	Allyl chloride
479	Chlorosulphonic acid	Inorg	0	0	Inorg	2	NI	(2)	(3)	4	NI	4	3C	3		0	D	3	7790-94-5	188	Chlorosulphonic acid
480	o-Chlorotoluene	3	3	3	NR	3	1	0	0	0	NI	0	1	1		3	S	1	95-49-8	189	Chlorotoluenes (mixed isomers)
																				534	o-Chlorotoluene
481	m-Chlorotoluene	3	NI	3	NR	2	NI	2	0	(2)	NI	(2)	1	1		3	S	2	108-41-8	426	m-Chlorotoluene

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
482	p-Chlorotoluene	3	3	3	NR	3	0	0	0	0	NI	0	1	1		3	S	2	106-43-4	551	p-Chlorotoluene
485	Choline chloride, solutions	0	NI	0	R	1	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0	67-48-1	190	Choline chloride solutions
2525	Choline hydroxide solution	0	(0)	0	R	1	0	(0)	(0)	(3)	NI	(3)	3	3		0	D	3	123-41-1	4234	Choline hydroxide solution
2485	Cinnamaldehyde	1	(2)	(2)	R	2	0	1	1	(2)	NI	(2)	2	1	Ss	1	SD	2	104-55-2	4061	Cinnamaldehyde
493	Citric acid	0	NI	0	R	1	0	0	(0)	(3)	NI	(3)	1	3		1	D	3	77-92-9	748	Citric acid (70% or less)
494	Citric juices	0	0	0	Inorg	0	0	0	0	0	NI	0	0	0		0	D	0		740	Water
495	Clay	Inorg	0	0	Inorg	0	0	0	0	0	NI	0	0	0		0	S	0		191	Clay slurry
498	Coal slurry	Inorg	0	0	Inorg	0	0	0	0	0	NI	0	0	0		0	S	0		192	Coal slurry
499	Coal tar	(4)	4	4	NR	3	1	0	0	0	NI	0	2	2	CMR	2	S	3	8007-45-2	193	Coal tar
500	Coal tar naphtha	3	NI	3	NR	3	NI	0	0	(1)	NI	(1)	1	1	C	4	FE	3	8030-30-6	194	Coal tar naphtha solvent
491	Coal tar pitch (molten)	3	(3)	(3)	NR	(4)	(2)	0	0	(1)	NI	(1)	1	0	CM	1	S	3	65996-93-2	195	Coal tar pitch (molten) (*)
501	Cobalt naphthenate in solvent naphtha	NI	NI	NI	NR	3	NI	0	(0)	(1)	NI	(1)	NI	1	C	3	FE	3		196	Cobalt naphthenate in solvent naphtha
2342	Cocoa butter	0	NI	0	R	0	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2		3096	Cocoa butter
2370	Coconut acid oil	0	0	0	R	3	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		NI	Fp	2		3139	Coconut acid oil
2366	Coconut fatty acid distillate	0	NI	0	R	(3)	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2		3130	Coconut fatty acid distillate
503	Coconut oil	0	NI	0	R	1	NI	0	(0)	(1)	NI	(1)	0	(1)		1	Fp	2	8001-31-8	2772	Coconut oil
505	Coconut oil fatty acid	0	0	0	(R)	(3)	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	61788-47-4	197	Coconut oil fatty acid
506	Coconut oil fatty acid methyl ester	5	0	0	R	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(1)		1	Fp	2	61788-59-8	198	Coconut oil fatty acid methyl ester
2524	Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate	0	NI	0	R	1	0	0	(0)	0	NI	0	0	0		0	D	0		4233	Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate
2111	Copper salt of long chain(>C17) alkanoic acid (LOA)	0	NI	0	(R)	2	NI	0	0	(0)	NI	(0)	0	0		1	Fp	2		2214	Copper salt of long chain (C17+) alkanoic acid
521	Corn oil	0	NI	0	R	(2)	NI	0	(0)	(1)	NI	(1)	1	1		1	Fp	2	8001-30-7	2781	Corn Oil
523	Cotton seed oil	0	NI	0	R	(2)	NI	(0)	(0)	(1)	NI	(1)	0	1		1	Fp	2	8001-29-4	2783	Cotton seed oil
524	Creosote (coal tar)	(4)	(4)	(4)	NR	4	(2)	1	0	2	NI	2	2	1	CMRSs	1	S	3	8001-58-9	199	Creosote (coal tar) (amended)
2514	Creosote (coal tar) C8-C22, MW 116-278	NI	(3)	(3)	(NR)	4	1	1	0	(2)	NI	(2)	2	1	CMRSs	2	S	3		4163	Creosote (coal tar) (C8-C22, MW 116-278)
525	Creosote (wood tar)	NI	NI	NI	NR	5	NI	1	0	2	NI	2	2	1	CM	2	SD	3	8021-39-4	200	Creosote (wood)
2471	Cresol/Phenol/Xylenol mixture	(2)	(2)	(2)	R	(3)	(1)	1	2	3	NI	3	3B	3		2	SD	3		4021	Cresol/Phenol/Xylenol mixture
527	Cresols (mixed isomers)	2	2	2	R	3	(1)	2	2	4	NI	4	3A	3		2	SD	3	1319-77-3	201	Cresols (all isomers)
1875	Cresylic acids, dephenolized	2	2	2	R	3	0	(2)	(2)	(3)	NI	(3)	(3A)	(3)		2	S	3		202	Cresylic acid, dephenolized
1914	Cresylic acid, sodium salt solution	(2)	(2)	(2)	(R)	(3)	(0)	1	(1)	(3)	NI	(3)	3	3	CMT	4	D	3		203	Cresylic acid, sodium salt solution
528	Crotonaldehyde	0	NI	0	NR	4	1	2	4	4	NI	4	2	3		4	D	3	4170-30-3	204	Crotonaldehyde

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2331	Crude Piperazine	0	NI	0	R	2	NI	(1)	(2)	(3)	NI	(3)	3	3	SsSr	0	D	3		2810	Crude Piperazine
2357	Crude Tall Oil	4	NI	4	R	2	0	0	0	(0)	NI	(0)	0	0	Ss	1	Fp	3		3118	Tall oil, crude
534	1,5,9-Cyclododecatriene	5	5	5	NR	4	NI	0	0	1	NI	1	2	1	A	2	F	3	4904-61-4	17	1,5,9-Cyclododecatriene
535	Cycloheptane	4	NI	4	(NR)	4	NI	(0)	0	(1)	NI	(1)	(0)	(1)		4	FE	2	291-64-5	205	Cycloheptane
536	Cyclohexane	3	3	3	NR	3	NI	0	0	1	NI	1	0	1		4	E	2	110-82-7	206	Cyclohexane
2472	Cyclohexane-1,2-dicarboxylic acid, diisononyl ester	0	3	3	R	0	0	0	0	(1)	NI	(1)	1	0		1	Fp	2	166412-78-8	3915	Cyclohexane-1,2-dicarboxylic acid, diisononyl ester
2458	Cyclohexane oxidation products, sodium salts solution	0	NI	0	Inorg	1	0	0	(0)	(0)	NI	(0)	0	0		0	D	0		3739	Cyclohexane oxidation products, sodium salts solution
537	Cyclohexanol	1	NI	1	R	2	NI	0	0	0	NI	0	2	2		2	Fp	2	108-93-0	207	Cyclohexanol
539	Cyclohexanone	0	1	1	R	1	0	1	1	1	NI	1	2	2		3	FED	2	108-94-1	208	Cyclohexanone
1436	Cyclohexanone/Cyclohexanol mixture	1	1	1	R	2	NI	1	1	1	NI	1	2	2		2	FED	2		209	Cyclohexanone, Cyclohexanol mixture
541	Cyclohexyl acetate	2	NI	2	(R)	(2)	NI	0	0	(2)	NI	(2)	2	1		3	FED	2	622-45-7	210	Cyclohexyl acetate
542	Cyclohexylamine	1	NI	1	R	2	NI	2	2	3	NI	3	3	3		3	D	3	108-91-8	211	Cyclohexylamine
545	1,3-Cyclopentadiene dimer (molten)	3	3	3	NR	3	NI	2	0	2	NI	2	2	2		3	Fp	2	77-73-6	11	1,3-Cyclopentadiene dimer (molten)
546	Cyclopentane	3	NI	3	NR	3	NI	(0)	(0)	0	NI	0	1	(1)		4	E	2	287-92-3	212	Cyclopentane
547	Cyclopentene	2	NI	2	(R)	3	NI	1	1	0	NI	0	(2)	(0)	A	4	E	2	142-29-0	213	Cyclopentene
551	Decahydronaphthalene	4	4	4	NR	3	NI	0	0	2	NI	2	2	1		3	F	1	91-17-8	214	Decahydronaphthalene
554	Decane	5	NI	5	R	0	0	0	0	0	NI	0	1	0		3	F	1	124-18-5	2620	Decane
555	Decanoic acid	4	NI	4	R	4	1	0	0	(2)	NI	(2)	2	2		1	Fp	2	334-48-5	215	Decanoic acid
558	1-Decene	5	NI	5	R	4	2	0	0	0	NI	0	2	0	A	3	F	3	872-05-9	216	Decene
1767	Decyl acetate	4	NI	4	NI	NI	NI	0	0	(1)	NI	(1)	(1)	(1)		1	F	1	112-17-4	217	Decyl acetate
559	Decyl acrylate	5	NI	5	(R)	5	NI	0	0	(2)	NI	(2)	2	1		1	Fp	2	2156-96-9	218	Decyl acrylate
1859	Decyloxytetrahydrothiophene dioxide	3	NI	3	NR	4	NI	0	0	(1)	NI	(1)	1	0		1	Fp	2		220	Decyloxytetrahydrothiophene dioxide
562	Dextrose solution	0	0	0	R	0	NI	0	0	0	NI	0	0	(0)		0	D	0	50-99-7	221	Dextrose solution
																				361	Glucose solution
563	Diacetone alcohol	0	NI	0	R	1	0	0	0	(2)	NI	(2)	2	2		4	D	2	123-42-2	226	Diacetone alcohol
1852	Dialkyldiphenylamines (LOA)	5	NI	5	NR	1	0	0	0	(0)	NI	(0)	0	0		1	FD	0		2255	Dialkyl (C8-C9) diphenylamines
2359	Dialkyl (C9 - C10) phthalates	(0)	(0)	(0)	(R)	(0)	(0)	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2		3121	Dialkyl (C9 - C10) phthalates
566	Dialkyl phthalates C9-C13	(0)	(4)	(4)	(NR)	(0)	(2)	(0)	(0)	(1)	NI	(1)	(1)	(1)	R	1	Fp	3		227	Dialkyl (C7-C13) phthalates
2469	2,6-Diaminohexanoic acid phosphonate mixed salts solution	1	NI	1	NR	1	(0)	(1)	(1)	(3)	NI	(3)	(3)	(3)		NI	D	3		3989	2,6-Diaminohexanoic acid phosphonate mixed salts solution
98	Diammonium hydrogen phosphate	0	0	0	Inorg	1	NI	0	0	(0)	NI	(0)	(1)	(1)		0	D	1	7783-28-0	117	Ammonium hydrogen phosphate solution

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
574	Dibromomethane	1	NI	1	NR	(2)	NI	1	0	0	NI	0	(2)	(2)		NI	SD	2	74-95-3	228	Dibromomethane
577	Di-n-butylamine	2	NI	2	R	3	NI	2	2	3	NI	3	3	3		3	FD	3	111-92-2	231	Dibutylamine
578	Di-butyl ether	3	3	3	NR	2	NI	0	0	0	NI	0	1	1		3	FE	2	142-96-1	475	n-Butyl ether
1857	Dibutyl hydrogen phosphonate	1	NI	1	NI	2	NI	0	0	(3)	NI	(3)	3	3		1	F	3	1809-19-4	229	Dibutyl hydrogen phosphonate
2083	2,4-Di-tert-butyl phenol	5	4	4	NR	4	NI	NI	NI	NI	NI	NI	NI	NI		1	NI	NI	96-76-4	2339	2,4-Di-tert-butylphenol
2082	2,6-Di-tert-butyl phenol	4	NI	4	NR	4	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2	128-39-2	2250	2,6-Di-tert-butylphenol
582	Di-n-butyl phthalate	4	4	4	R	4	1	0	0	1	NI	1	0	1	R	1	S	3	84-74-2	230	Dibutyl phthalate
2430	Dibutyl terephthalate	5	(3)	(3)	R	4	2	0	0	(0)	NI	(0)	0	0		1	S	0		3596	Dibutyl terephthalate
333	Dichlorobenzene (all isomers)	3	4	4	NR	3	1	1	0	1	NI	1	(2)	2	CMR	2	S	3		232	Dichlorobenzene (all isomers)
2079	3,4-Dichlorobut-1-ene	2	2	2	NR	3	NI	1	0	2	NI	2	2	3		3	S	3	760-23-6	56	3,4-Dichloro-1-butene
588	sym-Dichlorodiethyl ether	1	1	1	NR	1	0	2	3	4	NI	4	1	3		3	SD	3	111-44-4	233	Dichloroethyl ether
590	1,1-Dichloroethane	1	NI	1	NR	1	NI	1	(1)	0	NI	0	2	2		4	SD	2	75-34-3	4	1,1-Dichloroethane
591	1,2-Dichloroethane	1	1	1	NR	2	0	1	0	2	NI	2	1	2	C	4	SD	3	107-06-2	330	Ethylene dichloride
593	1,6-Dichlorohexane	3	NI	3	NR	3	NI	0	(0)	(0)	NI	(0)	0	0		2	S	0	2163-00-0	19	1,6-Dichlorohexane
615	Di-(2-chloro-iso-propyl) ether	2	2	2	NR	2	NI	2	0	2	NI	2	0	2		2	SD	2	108-60-1	25	2,2'-Dichloroisopropyl ether
594	Dichloromethane	1	2	2	NR	1	0	1	0	0	NI	0	2	2	C	0	SD	3	75-09-2	234	Dichloromethane
596	2,4-Dichlorophenol	3	2	2	NR	3	2	3	2	3	NI	3	3	3		1	S	3	120-83-2	30	2,4-Dichlorophenol
2523	2,4-dichlorophenoxyacetic acid, choline salt	2	2	2	NR	1	1	1	0	0	NI	0	1	2		0	D	2	1048373-72-3	4232	2,4-dichlorophenoxyacetic acid, choline salt
599	2,4-Dichlorophenoxyacetic acid, diethanolamine salt, solution	0	1	1	R	2	NI	1	0	(3)	NI	(3)	1	3		0	D	3		32	2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution
600	2,4-Dichlorophenoxyacetic acid, dimethylamine salt, 70 % or less solution	0	1	1	R	3	NI	1	0	(3)	NI	(3)	1	3		0	D	3		33	2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)
602	2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	0	NI	0	R	2	NI	1	0	(3)	NI	(3)	(1)	3		0	D	3		34	2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution
605	1,1-Dichloropropane	2	1	1	NR	2	1	0	0	1	NI	1	1	1		3	SD	1	78-99-9	5	1,1-Dichloropropane
606	1,2-Dichloropropane	2	1	1	NR	2	0	1	0	2	NI	2	2	2		4	SD	2	78-87-5	9	1,2-Dichloropropane
607	1,3-Dichloropropane	2	1	1	NR	2	1	0	NI	NI	NI	NI	NI	NI		3	SD	NI	142-28-9	12	1,3-Dichloropropane
608	Dichloropropane and dichloropropene, mixture	(2)	(1)	(1)	(NR)	(4)	(1)	2	1	2	NI	2	3	3	CSs	4	SD	3	8003-19-8	235	Dichloropropene/Dichloropropane mixtures
612	1,3-Dichloropropene	1	NI	1	NR	4	1	2	1	2	NI	2	3	3	CSs	3	SD	3	542-75-6	13	1,3-Dichloropropene
609	2,2-Dichloropropionic acid	2	2	2	NR	2	NI	1	0	(3)	NI	(3)	3	3		1	D	3	75-99-0	28	2,2-Dichloropropionic acid
2389	Dicyclopentadiene(80-90%)/Co-dimers(10-20%), mixtures	2	3	3	NR	3	0	2	0	3	NI	3	2	2	RA	3	FED	3		3559	Dicyclopentadiene, Resin Grade, 81-89%
620	Diethanolamine	0	NI	0	R	1	0	1	0	0	NI	0	2	3	T	1	D	3	111-42-2	236	Diethanolamine

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
621	Diethylamine	0	NI	0	R	2	NI	1	2	3	NI	3	3C	3		4	DE	3	109-89-7	240	Diethylamine
1437	2,6-Diethylaniline	3	3	3	NR	2	NI	1	1	(2)	NI	(2)	1	2		1	FD	2	579-66-8	35	2,6-Diethylaniline
624	Diethyl benzene (mixed isomers)	4	4	4	NR	3	NI	0	(0)	(2)	NI	(2)	2	1		3	F	2	25340-17-4	242	Diethylbenzene
625	Di-(2-ethylbutyl) phthalate	5	NI	5	R	0	2	0	0	(1)	NI	(1)	1	(1)	R	1	Fp	3	84-75-3	2750	Di-(2-ethylbutyl) phthalate
628	Diethylene glycol	0	NI	0	R	0	0	1	0	2	NI	2	1	1		1	D	2	111-46-6	243	Diethylene glycol
629	Diethylene glycol di-n-butyl ether	2	NI	2	NI	1	NI	0	0	(1)	NI	(1)	1	1		1	FD	1	112-73-2	244	Diethylene glycol dibutyl ether
630	Diethylene glycol diethyl ether	0	NI	0	NR	0	NI	1	0	(2)	NI	(2)	(2)	2		2	D	2	112-36-7	245	Diethylene glycol diethyl ether
2353	Diethylene glycol initiated polyoxypropylene diamine	0	NI	0	NR	2	NI	0	0	(3)	NI	(3)	3B	(3)		1	D	3		2946	Polyetheramine
																				3113	Diethylene glycol initiated polyoxypropylene diamine
1438	Diethylene glycol phthalate	2	NI	2	NR	1	NI	0	0	(2)	NI	(2)	(1)	2		1	S	2		247	Diethylene glycol phthalate
638	Diethylene triamine	0	1	1	(R)	2	NI	1	3	3	NI	3	3A	3	Ss	1	FD	3	111-40-0	248	Diethylenetriamine
2466	Diethylenetriamine pentaacetic acid, pentapotassium salt solution (40%)	1	NI	1	NR	2	NI	NI	NI	NI	NI	NI	NI	NI		0	D	NI		3929	Diethylenetriamine pentaacetic acid, pentapotassium salt (40% solution)
2076	Diethylenetriamine pentaacetic acid, pentasodium salt (40% solution in water)	0	NI	0	NR	0	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0		249	Diethylenetriaminepentaacetic acid, pentasodium salt solution
2467	Diethylenetriamine pentamethylene phosphonate, sodium salt solution	0	NI	0	R	2	0	0	0	(0)	NI	(0)	0	0		0	D	0		3930	Diethylenetriamine pentamethylene phosphonic acid, pentasodium salt solution
622	Diethyl ethanolamine	0	NI	0	NR	3	NI	1	1	2	NI	2	3	3		3	D	3	100-37-8	241	Diethylaminoethanol
640	Diethyl ether	0	1	1	NR	0	NI	1	0	0	NI	0	1	1		4	DE	2	60-29-7	237	Diethyl ether (*)
641	Di-(2-ethylhexyl) adipate	0	2	2	R	4	2	0	0	0	NI	0	1	1	R	1	Fp	3	103-23-1	222	Di-(2-ethylhexyl) adipate
643	Di-(2-ethylhexyl) phosphoric acid	(2)	1	1	NR	2	NI	0	1	(2)	NI	(2)	2	2		1	Fp	2	298-07-7	223	Di-(2-ethylhexyl) phosphoric acid
642	Di-(2-ethylhexyl) phthalate	0	4	4	R	0	0	0	0	1	NI	1	1	1	R	1	Fp	3	117-81-7	2751	Di-(2-ethylhexyl) phthalate
648	Diethyl phthalate	3	3	3	R	2	0	0	0	(1)	NI	(1)	1	1		1	S	1	84-66-2	238	Diethyl phthalate
649	Diethyl sulphate	1	NI	1	R	(2)	NI	1	2	3	NI	3	2	3	CM	1	SD	3	64-67-5	239	Diethyl sulphate
653	Diglycidyl ether of Bisphenol A	3	NI	3	NR	4	NI	0	0	(2)	NI	(2)	1	2	Ss	1	S	2	1675-54-3	250	Diglycidyl ether of bisphenol A
728	Diglycidyl ether of Bisphenol F	0	NI	0	NR	3	NI	0	(0)	(2)	NI	(2)	1	(2)	RSs	1	S	3	55492-52-9	251	Diglycidyl ether of bisphenol F
655	Diheptyl phthalate	0	(4)	(4)	R	0	NI	0	0	(1)	NI	(1)	1	1		1	Fp	3	3648-21-3	252	Diheptyl phthalate
656	Di-n-hexyl adipate	5	NI	5	(NR)	5	0	0	0	(1)	NI	(1)	0	1		1	FE	1	110-33-8	224	Di-n-hexyl adipate
2125	Di-hexyl phthalate	5	NI	5	R	0	2	0	0	(1)	NI	(1)	1	1	R	1	Fp	3	84-75-3	253	Dihexyl phthalate
657	1,4-Dihydro-9,10-dihydroxy anthracene disodium salt (solution)	1	NI	1	NI	1	NI	0	NI	NI	NI	NI	NI	NI		0	D	NI		15	1,4-Dihydro-9,10-dihydroxyanthracene, disodium salt solution
575	Diisobutene	4	4	4	NR	3	NI	0	0	0	NI	0	1	0		4	FE	2	11071-47-9	257	Diisobutylene

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
576	Diisobutylamine	(2)	NI	(2)	(R)	(3)	NI	2	(2)	2	NI	2	(3)	(3)		3	FED	3	110-96-3	256	Diisobutylamine
579	Diisobutyl ketone	3	NI	3	R	2	NI	0	0	2	NI	2	2	2		3	F	2	108-83-8	254	Diisobutyl ketone
581	Diisobutyl phthalate	4	(4)	4	R	(4)	1	0	0	1	NI	1	0	0	R	1	S	3	84-69-5	255	Diisobutyl phthalate
619	Diisodecyl phthalate	0	0	0	(R)	0	(0)	0	0	(1)	NI	(1)	0	1		1	Fp	2	26761-40-0	3119	Diisodecyl phthalate
2391	Diisoheptyl phthalate	0	(4)	(4)	R	0	0	0	0	(1)	NI	(1)	1	1	R	1	Fp	3		3561	Diisoheptyl phthalate
690	Diisononyl adipate	0	NI	0	R	0	0	0	0	(1)	NI	(1)	1	1		1	Fp	2	33703-08-1	258	Diisononyl adipate
691	Diisononyl phthalate	0	0	0	R	0	0	0	0	(0)	NI	(0)	0	0		1	Fp	2		3120	Diisononyl phthalate
693	Diisooctyl phthalate	0	4	4	(R)	0	0	0	0	(1)	NI	(1)	1	0		1	Fp	2	27554-26-3	259	Diisooctyl phthalate
703	Diisopropanolamine	0	NI	0	NR	1	NI	0	0	0	NI	0	2	3		1	FD	3	110-97-4	260	Diisopropanolamine
705	Diisopropylamine	1	NI	1	NR	2	0	1	1	2	NI	2	3	3		4	ED	3	108-18-9	261	Diisopropylamine
706	1,3-Diisopropylbenzene	5	4	4	NR	4	NI	0	0	2	NI	2	2	1		2	F	2	25321-09-9	2626	1,3-Diisopropyl benzene
2220	Diisopropyl benzene (mixed isomers)	5	4	4	NR	4	NI	0	0	2	NI	2	2	1		2	F	2		262	Diisopropylbenzene (all isomers)
711	Diisopropyl ether	1	NI	1	NR	2	NI	0	0	0	NI	0	1	2		4	E	2	108-20-3	406	Isopropyl ether
712	Diisopropylnaphthalene, mixed isomers	5	4	4	NR	3	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2	38640-62-9	263	Diisopropylnaphthalene
658	Dimethyl acetamide	0	NI	0	R	1	NI	0	0	2	NI	2	1	2		2	D	2	127-19-5	466	N,N-Dimethylacetamide solution (40% or less)
																				2730	N,N-Dimethylacetamide
659	Dimethyl adipate	1	NI	1	(R)	4	NI	0	0	(0)	NI	(0)	1	1		1	SD	2	627-93-0	264	Dimethyl adipate
661	Dimethylamine (40-50% aqueous solution)	0	NI	0	R	3	0	2	0	2	NI	2	3B	3	Ss	4	DE	3	124-40-3	270	Dimethylamine solution (45% or less)
																				271	Dimethylamine solution (greater than 45% but not greater than 55%)
																				272	Dimethylamine solution (greater than 55% but not greater than 65%)
2570	Dimethyl carbonate	(0)	NI	(0)	R	1	0	0	0	NI	2	2	0	0		4	D	2	616-38-6		
665	N,N-Dimethyl cyclohexylamine	2	NI	2	NR	2	NI	1	2	3	NI	3	3C	3		3	FD	3	98-94-2	467	N,N-Dimethylcyclohexylamine
1616	Dimethyl disulphide	1	NI	1	NR	3	2	2	0	2	NI	2	1	1		4	SD	2	624-92-0	2504	Dimethyl disulphide
2126	N,N-Dimethyldodecylamine	3	NI	3	R	4	NI	1	(1)	(3)	NI	(3)	3	3		2	F	3	112-18-5	468	N,N-Dimethyldodecylamine
667	Dimethylethanolamine	0	NI	0	R	2	NI	1	1	2	NI	2	3	3		3	D	3	108-01-0	273	Dimethylethanolamine
676	Dimethyl formamide	0	0	0	R	1	0	0	1	2	NI	2	1	2	R	3	D	3	68-12-2	274	Dimethylformamide
670	Dimethyl glutarate	0	NI	0	R	3	NI	0	0	2	NI	2	3	2	A	1	SD	3	26717-67-9	265	Dimethyl glutarate
673	Dimethyl hydrogen phosphite	0	NI	0	NR	2	NI	1	0	0	NI	0	1	1		3	D	1	868-89-9	266	Dimethyl hydrogen phosphite
675	2,2-Dimethyloctanoic acid	3	NI	3	R	4	1	0	0	(2)	NI	(2)	2	2		4	Fp	2	29662-90-6	267	Dimethyl octanoic acid
678	Dimethyl phthalate	2	2	2	R	2	0	0	0	(1)	NI	(1)	0	1		1	SD	1	131-11-3	268	Dimethyl phthalate
679	2,2-Dimethylpropane-1,3-diol	0	0	0	NR	0	0	0	0	0	NI	0	2	2		1	FD	2	126-30-7	29	2,2-Dimethylpropane-1,3-diol (molten or solution)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
681	Dimethyl succinate	0	NI	0	NI	2	NI	0	0	0	NI	0	0	2		2	SD	2	106-65-0	269	Dimethyl succinate
688	Dinitrotoluene	2	2	2	NR	4	2	2	(2)	(2)	NI	(2)	1	0	CMR	1	S	3	25321-14-6	276	Dinitrotoluene (molten)
2557	Dinonylphenol-formaldehyde-nonylphenol copolymer (62% in paraffin oil)	(5)	NI	(5)	NR	0	0	0	0	(0)	NI	(0)	0	0		3	Fp	2	63494-86-0		
689	Dinonyl phthalate	0	NI	0	R	0	0	0	0	(1)	NI	(1)	1	1		1	Fp	2	84-76-4	2993	Dinonyl phthalate
692	Di-n-octyl phthalate	0	(4)	(4)	(R)	0	0	0	0	(1)	NI	(1)	1	(1)		1	Fp	2	117-84-0	277	Dioctyl phthalate
682	1,4-Dioxane	0	0	0	NR	0	0	0	0	0	NI	0	0	2	C	4	D	3	123-91-1	16	1,4-Dioxane
686	Dipentene	4	NI	4	NR	2	NI	0	0	(2)	NI	(2)	2	2	Ss	3	F	3	138-86-3	278	Dipentene
694	Diphenyl	3	4	4	R	4	1	0	0	(1)	NI	(1)	0	1		1	S	1	92-52-4	279	Diphenyl
2186	Diphenylamine (molten)	3	3	3	NR	3	1	0	0	(1)	NI	(1)	1	1		1	S	1		285	Diphenylamine (molten)
1500	Diphenylamine, reaction product with 2,4,4-trimethylpentene	NI	1	1	NR	3	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2		286	Diphenylamine, reaction product with 2,2,4-Trimethylpentene
1770	Diphenylamines, alkylated	5	NI	5	NR	(3)	NI	0	0	(1)	NI	(1)	(1)	(1)		1	F	2		287	Diphenylamines, alkylated
698	Diphenyl/Diphenyl ether (mixtures)	NI	NI	4	NR	4	1	0	0	(1)	NI	(1)	1	1		1	S	1	8004-13-5	283	Diphenyl/Diphenyl ether mixtures
699	Diphenyl ether	4	4	4	NR	4	NI	0	0	0	NI	0	1	1		1	S	1	101-84-8	281	Diphenyl ether
702	Diphenyl ether/ Biphenyl phenyl ether mixtures	5	NI	5	NR	4	NI	0	0	0	NI	0	1	1		1	S	1		282	Diphenyl ether/Diphenyl phenyl ether mixture
700	Diphenylmethane-4,4'-diisocyanate	5	2	2	NR	0	0	0	0	3	NI	3	2	2	SsSr	1	S	3	101-68-8	288	Diphenylmethane diisocyanate
2237	Diphenylol propane-epichlorohydrin resins	3	NI	3	NR	4	NI	0	0	(2)	NI	(2)	1	2		1	S	2		290	Diphenylol propane-epichlorohydrin resins
704	Di-n-propylamine	1	NI	1	NR	3	NI	2	2	2	NI	2	3C	3		4	FED	3	142-84-7	225	Di-n-propylamine
707	Dipropylene glycol	0	1	1	R	0	NI	0	0	0	NI	0	0	1		1	D	1	25265-71-8	291	Dipropylene glycol
708	Dipropylene glycol dibenzoate	3	NI	3	R	3	NI	0	0	0	NI	0	0	0		1	S	0	94-51-9	2431	Dipropylene glycol dibenzoate
713	Di-n-propyl phthalate	3	NI	3	(R)	3	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)	R	1	S	3	131-16-8	2752	Di-n-propyl phthalate
2299	Distilled resin oil, DRO	(3)	NI	(3)	(NR)	(3)	NI	0	0	(2)	NI	(2)	2	1	MN	3	FE	3		2958	Resin oil, distilled
2185	Dithiocarbamate ester (C7-C35)	NI	2	2	NR	4	NI	0	0	(1)	NI	(1)	1	1		1	S	1		2371	Dithiocarbamate ester (C7-C35)
2351	Ditridecyl adipate	0	NI	0	NR	0	NI	0	0	(2)	NI	(2)	2	1		1	Fp	2		293	Ditridecyl adipate
714	Ditridecyl phthalate	0	(0)	0	NR	0	(0)	0	0	(1)	NI	(1)	1	(1)		1	Fp	2	119-06-2	2994	Ditridecyl phthalate
715	Diundecyl phthalate	0	(0)	0	NR	0	0	0	0	(1)	NI	(1)	1	1		1	Fp	2	3648-20-2	294	Diundecyl phthalate
718	Dodecane	5	NI	5	(R)	0	NI	0	0	(1)	NI	(1)	(1)	(0)		3	Fp	2	112-40-3	295	Dodecane (all isomers)
2233	tert-Dodecanethiol	5	4	4	NR	0	0	0	0	(2)	NI	(2)	2	1	Ss	2	F	3		2418	tert-Dodecanethiol
2571	Dodecanoic acid, 1-methylethyl ester	5	NI	5	R	0	(0)	0	(0)	(2)	NI	(2)	0	0		1	F	2	10233-13-3		
719	1-Dodecanol	5	2	2	R	4	1	0	0	(1)	NI	(1)	1	(1)		1	Fp	2	112-53-8	298	Dodecyl alcohol
2473	1-Dodecene	5	NI	5	R	0	NI	0	0	1	0	0	1	(0)	A	2	F	3	112-41-4	3990	1-Dodecene
720	Dodecene (all isomers)	5	NI	5	NR	4	NI	0	0	1	0	0	1	0	A	(2)	F	3		296	Dodecene (all isomers)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
727	2-Dodecenyl succinic acid, dipotassium salt, solution	4	NI	4	NR	1	NI	(0)	(0)	NI	NI	NI	NI	NI		0	D	NI	57195-28-5	297	Dodecenylsuccinic acid, dipotassium salt solution
721	Dodecylamine/Tetradecylamine mixture	3	NI	3	R	4	NI	1	0	(3)	NI	(3)	3	3		2	F	3		303	Dodecylamine/Tetradecylamine mixture
126	Dodecyl benzene	0	NI	0	NR	0	3	0	0	(2)	NI	(2)	(2)	(1)		1	F	2	123-01-3	304	Dodecylbenzene
1739	Dodecyl benzene sulphonic acid (contains 1.5% sulphuric acid)	NI	NI	3	R	3	1	1	(1)	(2)	NI	(2)	(1)	(1)		1	D	2		101	Alkyl (C11-C17) benzene sulphonic acid
723	Dodecyl diphenyl oxide disulphonate (solutions)	(5)	NI	5	NR	4	1	1	0	(3)	NI	(3)	1	3		0	D	3		299	Dodecyl diphenyl ether disulphonate solution
1861	Dodecyl hydroxypropyl sulphide (LOA)	5	NI	5	NI	4	NI	0	0	(0)	NI	(0)	0	0		1	FD	0		2252	Dodecyl hydroxypropyl sulphide
2462	n-Dodecyl mercaptan	5	3	3	NR	5	NI	0	0	(3)	NI	(3)	3	(3)	Ss	1	F	3		3743	n-Dodecyl mercaptan
2116	Dodecyl/octadecyl methacrylate (mixtures)	(5)	NI	(5)	(NR)	(0)	NI	0	0	(1)	NI	(1)	1	(1)		2	Fp	2		1717	Dodecyl/Octadecyl methacrylate mixture
724	Dodecyl/pentadecyl methacrylate (mixture)	(5)	NI	(5)	(NR)	(0)	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2		302	Dodecyl/Pentadecyl methacrylate mixture
725	Dodecyl phenol	0	4	4	NI	4	(3)	0	0	(3)	NI	(3)	3	2	R	1	Fp	3	27193-86-8	301	Dodecyl phenol
2248	Dodecyl-, tetradecyl-, hexadecyl-dimethylamine mixture	3	NI	3	R	5	2	1	(1)	(3)	NI	(3)	3C	3		1	F	3		2485	Alkyl (C12+) dimethylamine
1763	Dodecylxylene	0	NI	0	NI	0	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2		306	Dodecyl xylene
731	Epichlorohydrin	0	0	0	R	2	NI	2	2	3	NI	3	3A	3	CSs	3	D	3	106-89-8	309	Epichlorohydrin
732	Ethanol	0	NI	0	R	0	NI	0	0	0	NI	0	1	2		4	D	2	64-17-5	315	Ethyl alcohol
733	Ethanolamine	0	NI	0	R	2	0	1	1	3	NI	3	3A	3		2	D	3	141-43-5	311	Ethanolamine
2411	Ethanoltriazine (aqueous solution)	(0)	NI	(0)	R	3	NI	1	0	4	NI	4	0	2	Ss	1	D	3	4719-04-4	3687	1,3,5-Hexahydrotriethanol-1,3,5-triazine solution
2103	Ethoxylated long chain (>C16) alkyloxyalkanamine (LOA)	5	NI	5	NR	1	NI	0	0	(3)	NI	(3)	3	(3)		1	Fp	3		2203	Ethoxylated long chain (C16+) alkyloxyalkylamine
2313	Ethoxylated tallow amine (>95%)	0	NI	0	NR	4	NI	1	(1)	3	NI	3	2	3	Ss	1	Fp	3		2959	Ethoxylated tallow amine (>95%)
2252	Ethoxylated tallow amine, glycol mixture	2	NI	2	NR	6	NI	1	0	3	NI	3	2	3		1	D	3		2476	Ethoxylated tallow amine, glycol mixture
735	Ethyl acetate	0	2	2	R	1	0	0	0	1	NI	1	0	1		4	DE	2	141-78-6	312	Ethyl acetate
736	Ethyl acetoacetate	0	0	0	R	1	NI	0	0	(1)	NI	(1)	1	1		2	D	1	141-97-9	313	Ethyl acetoacetate
734	Ethyl acrylate	1	NI	1	R	3	1	1	2	2	NI	2	2	2	CSs	4	ED	3	140-88-5	314	Ethyl acrylate
1016	Ethylamine	0	NI	0	R	2	NI	2	2	1	NI	1	3	3		4	GD	3	75-04-7	322	Ethylamine (*)
2219	Ethylamine solutions (72% or less)	NI	NI	0	R	2	NI	2	2	1	NI	1	3	3		4	DE	3		323	Ethylamine solutions (72% or less)
1784	Ethyl amyl ketone	2	NI	2	NI	2	NI	0	0	(2)	NI	(2)	2	NI		3	FD	2	106-68-3	316	Ethyl amyl ketone
740	Ethylbenzene	3	2	2	R	3	(1)	0	0	0	NI	0	2	2	T	4	FE	3	100-41-4	324	Ethylbenzene
745	N-Ethyl butylamine	1	NI	1	NI	NI	NI	1	1	2	NI	2	3	3		4	FED	3	13360-63-9	477	N-Ethylbutylamine

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2085	Ethyl tert-butyl ether	1	NI	1	NR	2	0	0	0	(1)	0	0	1	0		4	E	1	637-92-3	320	Ethyl tert-butyl ether (amended)
748	Ethyl butyrate	1	NI	1	NI	2	NI	0	0	(2)	NI	(2)	2	NI		3	FED	2	105-54-4	317	Ethyl butyrate
751	Ethyl cyclohexane	4	4	4	NR	3	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		3	FE	2	1678-91-7	325	Ethylcyclohexane
752	N-Ethyl cyclohexylamine	2	NI	2	NI	(3)	NI	1	2	2	NI	2	3	3		3	FED	3	5459-93-8	478	N-Ethylcyclohexylamine
2081	S-Ethyl dipropylthiocarbamate	3	2	2	NI	3	NI	1	1	2	NI	2	2	(2)	N	1	F	3	759-94-4	2302	S-Ethyl dipropylthiocarbamate
755	Ethylene carbonate	0	NI	0	R	0	NI	0	0	(2)	NI	(2)	1	2		1	SD	2	96-49-1	326	Ethylene carbonate
756	Ethylene chlorohydrin	0	0	0	R	3	NI	2	3	4	NI	4	2	3		3	D	3	107-07-3	327	Ethylene chlorohydrin
757	Ethylene cyanohydrin	0	0	0	NI	2	NI	1	0	(2)	NI	(2)	1	2		1	D	2	109-78-4	328	Ethylene cyanohydrin
758	Ethylene diamine	0	1	1	R	3	1	1	2	1	NI	1	3	3	SsSr	3	D	3	107-15-3	343	Ethylenediamine
759	Ethylene diamine, tetra acetic acid, di- and tetra-sodium salt	0	NI	0	NR	2	0	1	(1)	(2)	NI	(2)	1	2		0	D	2	64-02-8	344	Ethylenediaminetetraacetic acid, tetrasodium salt solution
760	Ethylene dibromide	1	2	2	NR	3	NI	2	2	2	NI	2	3	3	CRT	0	SD	3	106-93-4	329	Ethylene dibromide
761	Ethylene glycol	0	NI	0	R	0	NI	1	(1)	(1)	NI	(1)	0	0		1	D	1	107-21-1	331	Ethylene glycol
869	Ethylene glycol acrylate	0	NI	0	R	4	NI	1	3	3	NI	3	3	3	MSs	1	D	3	818-61-1	51	2-Hydroxyethyl acrylate
764	Ethylene glycol butyl ether acetate	1	NI	1	R	2	NI	1	1	(1)	NI	(1)	1	1		2	FD	1	112-07-2	334	Ethylene glycol butyl ether acetate
765	Ethylene glycol diacetate	0	NI	0	NI	2	NI	0	0	(1)	NI	(1)	1	NI		1	D	1	111-55-7	335	Ethylene glycol diacetate
767	Ethylene glycol ethyl ether acetate	0	NI	0	R	2	0	1	0	1	NI	1	1	1	R	3	D	3	111-15-9	41	2-Ethoxyethyl acetate
772	Ethylene glycol methyl butyl ether	1	NI	1	NI	1	NI	NI	NI	NI	NI	NI	NI	NI		4	D	NI	13343-98-1	336	Ethylene glycol methyl butyl ether
773	Ethylene glycol methyl ether acetate	0	NI	0	R	2	NI	0	0	(0)	NI	(0)	(1)	1	R	3	D	3	110-49-6	337	Ethylene glycol methyl ether acetate
762	Ethylene glycol monoacetate	0	NI	0	R	2	NI	0	0	(3)	NI	(3)	NI	(3)		1	D	3	542-59-6	333	Ethylene glycol acetate
2268	Ethylene glycol monoalkyl ethers	0	NI	0	R	2	NI	1	2	2	NI	2	1	2		3	D	2		338	Ethylene glycol monoalkyl ethers
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	(3)	NI	(3)	(R)	(3)	(0)	(1)	(2)	(3)	NI	(3)	(2)	(3)	SsT	2	D	3		4283	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
766	Ethylene glycol monoethyl ether	0	NI	0	R	0	0	0	0	1	NI	1	2	2		3	D	3	110-80-5	40	2-Ethoxyethanol
775	Ethylene glycol phenyl ether	1	NI	1	R	1	0	1	0	0	NI	0	1	2		1	SD	2	122-99-6	339	Ethylene glycol phenyl ether
1740	Ethylene glycol phenyl ether/Diethylene glycol phenyl ether, mixture	NI	NI	1	R	1	NI	1	0	(2)	NI	(2)	(2)	(2)		1	SD	2		340	Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture
2477	Ethylene glycol (>75%)/Sodium alkyl carboxylates/borax mixture	NI	(1)	(1)	R	1	NI	1	(1)	(2)	NI	(2)	(1)	(1)	R	1	D	3		4006	Ethylene glycol (>75%)/Sodium alkyl carboxylates/borax mixture
2475	Ethylene glycol (>85%)/Sodium alkyl carboxylates mixture	NI	(1)	(1)	R	1	NI	1	(1)	(1)	NI	(1)	0	0		1	D	1		4005	Ethylene glycol (>85%)/Sodium alkyl carboxylates mixture
77	Ethylene oxide	NI	NI	NI	NI	NI	NI	1	(1)	3	NI	3	3	3	CMR	4	GD	3	75-21-8	2744	Ethylene oxide

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1508	Ethylene-propylene copolymer	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	NI	0		633	Propylene-Butylene copolymer
779	Ethylene vinyl acetate copolymer (emulsion)	0	1	1	NR	0	0	0	(0)	(2)	NI	(2)	2	0		0	S	2		342	Ethylene-vinyl acetate copolymer (emulsion)
1439	Ethyl 3-ethoxypropionate	1	NI	1	NR	2	NI	0	0	0	NI	0	1	1		3	FD	1	763-69-9	321	Ethyl-3-ethoxypropionate
776	2-Ethylhexanoic acid	2	NI	2	R	2	NI	0	0	(2)	NI	(2)	2	2		1	FD	3	149-57-5	45	2-Ethylhexanoic acid
782	2-Ethylhexyl acrylate	3	NI	3	R	2	NI	0	0	(2)	NI	(2)	2	2	Ss	2	F	3	103-11-7	46	2-Ethylhexyl acrylate
2221	2-Ethylhexyl esters of fatty acids	0	NI	0	R	1	NI	0	(0)	(0)	NI	(0)	1	0		1	F	1			
2054	2-Ethyl-2-(hydroxymethyl)propane-1,3-diol C8-C10 ester (LOA)	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	0	(0)		1	Fp	2		42	2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester
783	5-Ethylidene-2-norbornene	3	3	3	NR	3	0	0	0	2	NI	2	1	2		3	FE	2	16219-75-3	345	Ethylidene norbornene
737	Ethyl isoamyl ketone	NI	NI	NI	NI	NI	NI	0	0	(1)	NI	(1)	1	(2)		3	FD	2	541-85-5	2618	Ethyl isoamyl ketone
785	Ethyl methacrylate	1	NI	1	R	2	0	0	0	0	NI	0	(2)	(2)	Ss	4	FE	2	97-63-2	318	Ethyl methacrylate
2228	N-Ethyl-2-methallylamine	0	NI	0	NR	2	NI	3	2	2	NI	2	3A	3		4	D	3		2417	N-Ethylmethylallylamine
788	o-Ethyl phenol	2	NI	2	NI	(2)	NI	1	NI	NI	NI	NI	NI	NI		2	S	NI	90-00-6	535	o-Ethylphenol
790	Ethyl propionate	1	NI	1	NI	2	0	0	(1)	(2)	NI	(2)	2	2		4	ED	2	105-37-3	319	Ethyl propionate
791	2-Ethyl-3-propylacrolein	2	NI	2	R	3	NI	0	0	1	NI	1	3	3		2	F	3	645-62-5	43	2-Ethyl-3-propylacrolein
2297	Ethyl toluene (all isomers)	3	NI	3	NI	(3)	NI	0	0	0	NI	0	2	2		3	F	2		346	Ethyl toluene
2545	Fast Pyrolysis Bio-oil	(4)	NI	(4)	NR	2	0	0	(0)	(3)	NI	(3)	3A	(3)	SsA	1	Fp	3	1207435-39-9	4285	Fast pyrolysis bio-oil
2362	Fatty acid methyl esters	0	NI	0	R	2	NI	0	(0)	(2)	NI	(2)	2	2		3	Fp	2		3125	Fatty acid methyl esters (m)
2253	Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester	0	NI	0	R	1	NI	0	0	(1)	NI	(1)	1	0		1	Fp	2		1914	Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester
																				2759	Fatty acid (C8-C16) ethyl hexyl esters
2260	Fatty acids, linear, C8-C18 saturated with C18 unsaturated	(4)	(0)	(0)	R	(4)	(1)	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2		2779	Fatty acids, (C8-C18)
2261	Fatty acids, linear C12+ saturated with C12+ unsaturated	5	0	0	(R)	0	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		NI	Fp	2		2780	Fatty acids, (C12+)
2324	Fatty acids saturated, C8-C10	0	NI	0	R	4	NI	0	0	(3)	NI	(3)	3C	3		1	Fp	3		3079	Fatty acids, (C8-C10)
2580	Fatty acids, tall-oil, maleated	2	NI	2	NR	2	0	(0)	(0)	(0)	NI	(0)	0	(0)	Ss	1	Fp	3	68139-89-9		
2579	Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	(2)	(2)	(2)	NR	(5)	(2)	0	0	(3)	NI	(3)	(3)	(3)	Ss	1	Fp	3	68153-60-6		
2578	Fatty acids, tall-oil, reaction products with polyethylenepolyamines, acetates	(4)	(2)	(2)	NR	(4)	(2)	1	(0)	(3)	NI	(3)	(3)	(3)	Ss	0	S	3	64754-93-4		
2259	Fatty acids, unsaturated, linear, C16+	0	0	0	R	(0)	NI	0	0	(0)	NI	(0)	0	0		1	Fp	2		2778	Fatty acids, (C16+)
2548	Fatty acids, C18 unsaturated, reaction products with triethanolamine, dimethyl sulphate-quaternized	(0)	NI	(0)	R	(2)	(0)	0	0	(2)	NI	(2)	0	2		2	S	2	1226892-43-8		

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2326	Fatty alcohols, linear, (C12+)	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(1)	NI	(1)	1	1		1	Fp	2		3081	Alcohols (C12+), primary, linear
2327	Fatty alcohols, linear, (C16+)	(5)	(2)	(2)	(R)	(0)	(1)	0	0	(1)	NI	(1)	1	1		1	Fp	2		3082	Alcohols, linear (C16+)
339	Ferric chloride	Inorg	5	5	Inorg	2	0	1	(0)	(3)	NI	(3)	2	3		0	D	3	7705-08-0	348	Ferric chloride solutions
796	Ferric hydroxyethyl ethylene diamine triacetic acid, tri- sodium salt, solution	NI	NI	NI	NI	NI	NI	0	0	(1)	NI	(1)	(0)	1		0	D	1		349	Ferric hydroxyethylethylenediaminetriaceti c acid, trisodium salt solution
337	Ferric nitrate/nitric acid solution	Inorg	(5)	(5)	Inorg	(2)	(0)	0	(0)	(3)	NI	(3)	3	3		0	D	3		350	Ferric nitrate/Nitric acid solution
2577	Ferric sulphate solution	Inorg	0	0	Inorg	3	0	(1)	(0)	1	NI	1	(2)	(3)		0	D	3	10028-22-5		
2499	Fish by-products (fresh)	NI	NI	(0)	NR	1	(0)	(0)	(0)	(0)	NI	(0)	(0)	(0)		0	FD	1		3893	Fish by-products (fresh) (*)
2316	Fish oil (containing less than 10% free fatty acids)	0	NI	0	R	2	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2		3046	Fish oil
2502	Fish protein concentrate (containing 4% or less formic acid)	NI	NI	(0)	R	1	(0)	(0)	(0)	(0)	NI	(0)	(1)	(1)		0	D	1		4090	Fish protein concentrate (containing 4% or less formic acid)
2500	Fish silage (containing 3% or less formic acid with antioxidant)	NI	NI	(0)	R	0	(0)	(0)	(0)	(0)	NI	(0)	(1)	(1)		0	FD	1		3892	Fish silage (containing 3% or less formic acid with antioxidant)
2487	Fish silage protein concentrate (containing 4% or less formic acid)	NI	0	0	R	2	NI	(0)	(0)	(0)	NI	(0)	(1)	(1)		0	D	2		4062	Fish silage protein concentrate (containing 4% or less formic acid)
1509	Fish solubles	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		0	NI	NI		351	Fish solubles (water-based fish meal extract)
806	Fluorosilicic acid	Inorg	0	0	Inorg	2	NI	2	(2)	4	NI	4	3	3		0	D	3	16961-83-4	2716	Fluorosilicic acid
2240	Fluorosilicic acid solution (20-30%)	Inorg	2	2	Inorg	2	0	(1)	(1)	(3)	NI	(3)	3B	3	T	0	D	3		353	Fluorosilicic acid solution (20-30%)
2560	Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol, methyloxirane and oxirane (60% in naphtha)	(5)	(5)	(5)	NR	1	0	0	0	(0)	NI	(0)	0	0		3	Fp	2	30704-64-4		
2377	Formaldehyde, polymer with isobutylenated phenol	NI	NI	NI	NR	NI	NI	NI	NI	NI	NI	NI	NI	NI		1	Fp	NI		1203	Formaldehyde, polymer with isobutylenated phenol
807	Formaldehyde (37%-50% solution)	0	NI	0	R	2	NI	2	2	3	NI	3	3	3	CMSs	3	D	3	50-00-0	354	Formaldehyde solutions (45% or less)
808	Formamide	0	NI	0	NR	1	NI	0	0	1	NI	1	1	2	R	1	D	3	75-12-7	355	Formamide
809	Formic acid	0	NI	0	R	2	NI	1	(1)	2	NI	2	3C	3		2	D	3	64-18-6	356	Formic acid (85% or less acid)
																				3830	Formic acid (over 85%)
2408	Formic acid mixture (containing up to 18% propionic acid and up to 25% sodium formate)	0	NI	0	R	1	NI	(0)	(0)	(2)	NI	(2)	(2)	(3)		2	D	3		3684	Formic acid mixture (containing up to 18% propionic acid and up to 25% sodium formate)
810	Fumaric adduct of rosin (water dispersion)	3	NI	3	NR	3	NI	0	(0)	(3)	NI	(3)	0	3	Ss	0	D	3	65997-04-8	357	Fumaric adduct of rosin, water dispersion
812	Furfural	0	NI	0	R	2	1	2	(2)	3	NI	3	2	2	C	3	D	3	98-01-1	358	Furfural
813	Furfuryl alcohol	0	NI	0	R	1	NI	2	2	3	NI	3	2	2		2	D	2	98-00-0	359	Furfuryl alcohol

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2368	Glucitol/glycerol blend, propoxylated (containing less than 10% amines)	0	NI	0	NR	1	NI	1	0	(2)	NI	(2)	(1)	(1)		1	SD	2		3074	Glucitol/glycerol blend propoxylated (containing less than 10% amines)
2441	Glucitol/glycerol blend propoxylated (containing 10% or more amines)	2	NI	2	NR	1	1	1	0	(2)	NI	(2)	(1)	(1)		1	D	2		3919	Glucitol/glycerol blend propoxylated (containing 10% or more amines)
814	Glycerine	0	NI	0	R	0	0	0	0	(1)	NI	(1)	0	1		1	D	1	56-81-5	363	Glycerine
1743	Glycerine (83%)/ Dioxane-dimethanol (17%) mixture	NI	NI	NI	R	1	NI	0	(0)	(1)	NI	(1)	(0)	1		1	D	1		364	Glycerine (83%), Dioxanedimethanol (17%) mixture
2360	Glycerol ethoxylated	0	NI	0	R	0	NI	0	0	(0)	NI	(0)	0	0		1	D	0		3123	Glycerol ethoxylated
1898	Glycerol monooleate	0	0	0	R	0	NI	0	(0)	(1)	NI	(1)	1	1		1	Fp	2	25496-72-4	365	Glycerol monooleate
2346	Glycerol propoxylated	0	NI	0	NR	1	NI	1	0	(2)	NI	(2)	1	0		1	D	2		3110	Glycerol propoxylated
2276	Glycerol, propoxylated and ethoxylated	0	NI	0	NR	1	0	0	0	0	NI	0	0	0		1	SD	2		2872	Glycerol, propoxylated and ethoxylated
2372	Glycerol/sorbitol blend, propoxylated and ethoxylated	0	NI	0	NR	2	(0)	(0)	(0)	(0)	NI	(0)	(0)	(0)		NI	S	0			
2361	Glycerol/sucrose blend, propoxylated and ethoxylated	0	NI	0	NR	1	NI	0	0	0	NI	0	0	0		1	SD	0		3124	Glycerol/sucrose blend propoxylated and ethoxylated
816	Glyceryl triacetate	0	NI	0	R	1	0	1	0	0	NI	0	0	1		1	D	1	102-76-1	367	Glyceryl triacetate
441	Glycidyl ester of C10 trialkyl acetic acid	3	NI	3	NR	3	NI	0	0	(2)	NI	(2)	2	1		1	F	2		368	Glycidyl ester of C10 trialkylacetic acid
817	Glycine, Sodium salt, solution	0	NI	0	NI	0	NI	0	(0)	(1)	NI	(1)	(0)	(1)		0	D	1	56-40-6	369	Glycine, sodium salt solution
2218	Glycolic acid	0	0	0	R	1	NI	1	(1)	2	NI	2	3C	3		0	D	3		2539	Glycolic acid solution (70% or less)
84	Glyoxal solutions (40% or less)	0	NI	0	R	1	NI	0	0	2	NI	2	2	3	MSsSr	1	D	3	107-22-2	370	Glyoxal solution (40% or less)
1535	Glyoxylic acid	0	NI	0	R	2	0	0	0	(3)	NI	(3)	0	3	Ss	1	D	3	298-12-4	371	Glyoxylic acid solution (50 % or less)
1765	Glyphosate solution, without surfactant	0	0	0	NR	3	0	0	0	(3)	NI	(3)	0	3		1	D	3	1071-83-6	2204	Glyphosate solution (not containing surfactant)
2442	Grape Seed Oil	(0)	NI	(0)	(R)	(0)	(0)	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2	8024-22-4	3643	Grape Seed Oil
820	Groundnut oil	0	NI	0	R	(2)	NI	(0)	(0)	(0)	NI	(0)	(0)	0		1	Fp	2	8002-03-7	2769	Groundnut oil
827	Heptane	4	NI	4	R	4	NI	0	0	0	NI	0	(1)	1	A	4	E	2	142-82-5	372	Heptane (all isomers)
831	Heptanoic acid	2	NI	2	R	1	NI	0	0	1	NI	1	3B	(3)		1	FD	3	111-14-8	479	n-Heptanoic acid
828	1-Heptanol	2	NI	2	R	2	0	1	0	2	NI	2	(2)	(2)		2	FD	2	111-70-6	2688	1-Heptanol
2223	Heptanol (all isomers)	2	NI	2	R	(2)	NI	0	0	(2)	NI	(2)	(1)	(2)		3	FD	2		373	Heptanol (all isomers) (d)
832	1-Heptene	3	NI	3	NI	2	NI	(0)	(0)	(0)	NI	(0)	(2)	(1)		4	E	2		2685	1-Heptene
2225	Heptene (all isomers)	3	NI	3	NI	2	NI	(0)	(0)	(0)	NI	(0)	(2)	(1)		4	E	2		374	Heptene (all isomers)
833	Heptyl acetate	3	NI	3	(R)	(3)	NI	0	0	(2)	NI	(2)	1	2		2	F	2	112-06-1	375	Heptyl acetate
2159	Hexadecyl naphthalene/dihexadecyl naphthalene mixture	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2		2373	1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2489	Hexahydro-1,3,5-trimethyl-1,3,5-triazine solution (45% or less)	(2)	NI	(2)	R	3	NI	1	(1)	(3)	NI	(3)	3A	3	Ss	2	D	3	108-74-7	4123	Hexahydro-1,3,5-trimethyl-1,3,5-triazine solution (45% or less)
845	Hexamethylene diamine	0	NI	0	R	2	NI	1	1	(3)	NI	(3)	3A	3	R	2	D	3	124-09-4	377	Hexamethylenediamine
																				378	Hexamethylenediamine (molten)
																				380	Hexamethylenediamine solution
846	Hexamethylene diamine adipate, 50% in water	0	NI	0	R	1	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0	3323-53-3	379	Hexamethylenediamine adipate (50% in water)
2142	Hexamethylene diisocyanate	3	0	0	NR	2	NI	1	2	4	NI	4	3	3	SsSr	1	S	3	822-06-0	18	Hexamethylene diisocyanate
847	Hexamethylene glycol	0	NI	0	R	1	NI	0	0	(1)	NI	(1)	0	1		1	D	1	629-11-8	376	Hexamethylene glycol
848	Hexamethyleneimine	1	NI	1	NI	2	NI	3	1	2	NI	2	2	2		4	FED	2	111-49-9	381	Hexamethyleneimine
849	Hexamethylene tetramine (40% solution)	0	NI	0	R	0	NI	0	0	(1)	NI	(1)	0	1	Ss	1	D	2	100-97-0	382	Hexamethylenetetramine solutions
850	Hexane	3	NI	3	R	4	NI	0	0	0	NI	0	2	2	AN	4	E	2	100-54-3	383	Hexane (all isomers)
																				2683	Hexane
2143	1,6-Hexanediol, distillation overheads	4	NI	4	NR	2	NI	0	0	2	NI	2	1	2		2	FED	2		2641	1,6-Hexanediol, distillation overheads
853	Hexanoic acid	2	NI	2	R	2	NI	0	0	(3)	NI	(3)	(3)	3		1	FD	3	142-62-1	384	Hexanoic acid
854	1-Hexanol	1	0	0	(R)	2	NI	1	0	(3)	NI	(3)	1	3		2	FD	3	111-27-3	385	Hexanol
855	1-Hexene	3	NI	3	R	3	NI	0	0	0	NI	0	1	1		4	E	2	592-41-6	2681	1-Hexene
2224	Hexene (all isomers)	3	NI	3	R	3	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		4	E	2		386	Hexene (all isomers)
856	2-Hexene (mixed isomers)	3	NI	3	R	3	NI	(0)	(0)	0	NI	0	(1)	(1)		4	E	2		2682	2-Hexene (mixed isomers)
857	Hexyl acetate	2	NI	2	NI	3	NI	0	0	(1)	NI	(1)	1	1		3	FE	2	142-92-7	387	Hexyl acetate
858	sec-Hexyl acetate	2	NI	2	NI	3	NI	0	0	0	NI	0	1	(2)		3	FED	2	108-84-9	456	Methylamyl acetate
859	Hexylene glycol	0	NI	0	R	0	0	0	0	(3)	NI	(3)	2	3		2	D	2	107-41-5	388	Hexylene glycol
2278	Hydrocarbon wax	(5)	NI	(5)	NR	0	0	(0)	(0)	(0)	NI	(0)	(0)	(0)	CT	1	Fp	3		741	Hydrocarbon wax
864	Hydrochloric acid	Inorg	0	0	Inorg	1	NI	1	1	3	NI	3	3C	3		0	DE	3	7647-01-0	389	Hydrochloric acid (*)
2347	Hydrogenated starch hydrolysate	0	NI	0	R	0	NI	0	0	(0)	NI	(0)	0	0		1	D	0		3077	Hydrogenated starch hydrolysate
867	Hydrogen peroxide, more than 60%	Inorg	0	0	Inorg	3	NI	1	0	2	NI	2	3	3		0	D	3	7722-84-1	390	Hydrogen peroxide solutions (over 60% but not over 70% by mass)
																				2689	Hydrogen peroxide, more than 60%
2231	Hydrogen peroxide, more than 8% but not more than 60%	Inorg	0	0	Inorg	3	NI	1	0	(2)	NI	(2)	3	3		0	D	3		391	Hydrogen peroxide solutions (over 8% but not over 60% by mass)
																				2690	Hydrogen peroxide, more than 8% but not more than 60%
870	N-(2-Hydroxyethyl) ethylene diamine triacetic acid, trisodium salt (solution)	0	NI	0	NI	1	NI	0	0	(1)	NI	(1)	1	1	R	0	D	3	150-30-0	470	N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2493	[[(2-hydroxyethyl)imino]dimethylene]bisphosphonic acid, sodium salt	0	NI	0	NR	1	NI	0	0	(0)	NI	(0)	0	1		0	D	1	22036-78-8		
2556	1-(2-Hydroxyethyl)-2-nor(tall oil alkyl)-2-imidazoline	5	NI	5	NR	5	2	0	0	(3)	NI	(3)	3	3		1	Fp	3	61791-39-7		
871	2-Hydroxy-4-(methylthio) butanoic acid	1	NI	1	R	1	NI	0	0	(3)	NI	(3)	1	3		1	D	3	583-91-5	49	2-Hydroxy-4-(methylthio)butanoic acid
2092	Icosa(oxypropane-2,3-diyl)s	NI	NI	NI	NI	NI	NI	0	(0)	(2)	NI	(2)	2	(2)		1	Fp	2		392	Icosa(oxypropane-2,3-diyl)s
2304	Illipe oil (containing less than 10% free fatty acids)	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		3034	Illipe oil
2505	Imidazolium compounds, 1-benzyl-4,5-dihydro-1-(hydroxyethyl)-2-norcoco alkyl, chlorides	(0)	NI	(0)	NR	4	NI	NI	NI	NI	NI	NI	(2)	(3)		(4)	Fp	3	61791-52-4	4157	Imidazolium compounds, 1-benzyl-4,5-dihydro-1-(hydroxyethyl)-2-norcoco alkyl, chlorides
2355	Interesterified mixed vegetable oils	0	NI	0	R	(0)	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2		3115	Interesterified vegetable oils
2526	Isoalkanes (C16-C18)	0	NI	0	R	1	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)	A	1	F	1		4235	Isoalkanes (C16-C18)
2203	Iso- and cyclo-alkanes (C10-C11)	(5)	NI	(5)	NI	(0)	(0)	(0)	(0)	(1)	NI	(1)	(1)	(0)		3	F	1		393	Iso- and cyclo-alkanes (C10-C11)
2204	Iso- and cyclo-alkanes (C12+)	(5)	NI	(5)	NI	(0)	NI	0	0	(1)	NI	(1)	(0)	(0)	A	3	NI	2		394	Iso- and cyclo-alkanes (C12+)
382	Isobutanol	0	NI	0	R	1	0	0	0	1	NI	1	2	3		3	D	3	78-83-1	397	Isobutyl alcohol
405	Isobutyl formate	1	NI	1	NI	1	NI	0	(0)	0	NI	0	(1)	(2)		4	E	2	542-55-2	398	Isobutyl formate
408	Isobutyl methacrylate	2	NI	2	NR	1	NI	0	0	0	NI	0	2	2	Ss	3	FED	2	97-86-9	2673	Isobutyl methacrylate
419	Isobutyric acid	0	NI	0	R	2	NI	2	2	(3)	NI	(3)	3	3		3	E	NI	79-31-2	2459	Isobutyric acid
557	Isodecanol	3	2	2	R	3	NI	0	0	0	NI	0	2	1		2	Fp	2	25339-17-7	219	Decyl alcohol (all isomers)
1059	Isononanol	3	NI	3	NR	3	1	0	0	(2)	NI	(2)	2	2		2	Fp	2	2430-22-0	510	Nonyl alcohol (all isomers)
2300	Isononylaldehyde	3	NI	3	NR	(3)	NI	0	0	(2)	NI	(2)	2	1		3	F	2		2754	Isononylaldehyde
1071	Isooctaldehyde	2	NI	2	NI	3	NI	0	0	(1)	NI	(1)	1	1		3	F	1	63885-09-6	542	Octyl aldehydes
1076	Isooctanol	3	NI	3	R	2	0	1	0	(2)	NI	(2)	2	(2)		2	F	2	26952-21-6	2675	iso-Octanol
1081	Isooctylamine	2	NI	2	NI	3	NI	1	1	3	NI	3	3	3		3	FD	3	104-75-6	48	2-Ethylhexylamine
1113	Isopentene	2	NI	2	NI	2	NI	(0)	(0)	(0)	NI	(0)	(0)	(1)		4	E	2	563-45-1	2677	iso-Pentene
879	Isophorone	1	1	1	R	2	0	1	1	(2)	NI	(2)	1	2		2	FD	2	78-59-1	399	Isophorone
880	Isophorone diamine	0	0	0	NR	2	0	1	(1)	(3)	NI	(3)	3	3	Ss	1	D	3	2855-13-2	401	Isophoronediamine
881	Isophorone diisocyanate	1	NI	1	NR	3	NI	0	0	3	NI	3	3	3	SsSr	1	S	3	4098-71-9	400	Isophorone diisocyanate
882	Isoprene	2	2	2	NR	3	1	0	0	0	NI	0	1	2	CM	4	E	3	78-79-5	402	Isoprene
1181	Isopropanol	0	NI	0	R	0	0	0	0	0	NI	0	1	2		4	D	2	67-63-0	405	Isopropyl alcohol
1182	Isopropanolamine	0	NI	0	R	2	NI	0	1	0	NI	0	3	3		2	D	3	78-96-6	403	Isopropanolamine
1192	Isopropyl acetate	1	NI	1	R	1	NI	0	0	0	NI	0	1	2		4	ED	2	108-21-4	404	Isopropyl acetate
1195	Isopropylamine	0	NI	0	R	2	NI	2	2	1	NI	1	3	3		4	DE	3	75-31-0	407	Isopropylamine

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2350	Isopropylamine (70%)	0	NI	0	R	2	NI	2	2	1	NI	1	3	3		4	DE	3		395	Isopropylamine (70% or less) solution
1197	Isopropyl benzene	3	2	2	R	3	NI	0	0	0	NI	0	2	1		3	FE	2	98-82-8	623	Propylbenzene (all isomers)
																				2687	Isopropylbenzene
1199	Isopropyl cyclohexane	4	NI	4	(NR)	(3)	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		3	FE	2	696-29-7	408	Isopropylcyclohexane
549	Isopropyltoluenes	4	4	4	(NR)	3	NI	0	(0)	1	NI	1	2	(1)		3	FE	2	99-87-6	552	p-Cymene
1390	Isovaleraldehyde	1	NI	1	R	3	NI	0	0	0	NI	0	2	2		4	D	2	590-86-3	731	Valeraldehyde (all isomers)
2402	Jatropha oil	0	NI	(0)	(R)	(2)	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		3637	Jatropha oil
883	Kaolin slurry	Inorg	NI	0	Inorg	0	NI	0	0	0	NI	0	0	0		0	S	0	1332-58-7	409	Kaolin slurry
886	Lactic acid	0	NI	0	R	1	NI	0	0	(3)	NI	(3)	2	3		1	D	3	50-21-5	410	Lactic acid
887	Lactonitrile solution (80% or less)	0	NI	0	R	4	NI	3	4	(4)	NI	(4)	NI	NI		2	D	3	78-97-7	411	Lactonitrile solution (80% or less)
2317	Lard (containing less than 10% free fatty acids)	0	NI	0	R	0	NI	0	(0)	(1)	NI	(1)	0	1		1	Fp	2		3047	Lard
889	Latex, ammonia inhibited	0	NI	0	NI	(2)	NI	0	0	(1)	NI	(1)	0	1		0	D	1		413	Latex, ammonia (1% or less)-inhibited
891	Lauric acid	4	NI	4	R	4	1	0	(0)	(2)	NI	(2)	1	2		1	Fp	2	143-07-7	415	Lauric acid
2479	Lauroamidopropyl betaine solution	(4)	(2)	(2)	R	(4)	(1)	(0)	(0)	(3)	NI	(3)	(1)	(3)		0	D	3	4292-10-8		
893	Lauryl methacrylate	0	2	2	R	0	0	0	(0)	(1)	NI	(1)	1	1		1	F	1	142-90-5	300	Dodecyl methacrylate
2146	Lecithin (soybeans)	0	NI	0	R	0	NI	0	0	(0)	NI	(0)	0	(0)		1	SD	0		417	Lecithin
34	Lignin sulphonic acid, salt solution	0	NI	0	(NR)	(0)	NI	0	(0)	(0)	NI	(0)	(0)	(0)		0	D	0		419	Ligninsulphonic acid, sodium salt solution
2380	Linear alkyl (C12-16) propoxyamine ethoxylate	3	0	3	NR	4	NI	1	(1)	(3)	NI	(3)	3	(3)		1	D	3		3423	Alkyl(C12-C16) propoxyamine ethoxylate
2318	Linseed oil (containing less than 4% free fatty acids)	0	NI	0	R	(2)	NI	0	(0)	(1)	NI	(1)	0	(1)		1	Fp	2		3048	Linseed oil
1982	Long chain alkaryl polyether (C11-C20) (LOA)	(4)	NI	(4)	NR	3	(1)	0	0	(2)	NI	(2)	0	2		1	Fp	2		421	Long-chain alkaryl polyether (C11-C20)
1966	Long chain alkaryl sulphonic acid (C16-C60) (LOA)	0	NI	0	(NR)	0	NI	0	0	(2)	NI	(2)	(1)	2		2	Fp	2		424	Long-chain alkaryl sulphonic acid (C16-C60)
1754	Long-chain alkylphenate/Phenol sulphide mixture	(0)	NI	(0)	(NR)	0	NI	0	0	(2)	NI	(2)	2	2		1	Fp	2		425	Long-chain alkylphenate/Phenol sulphide mixture
2478	Long chain alkylphenol (C14-C18)	(0)	NI	(0)	NR	(0)	(0)	(0)	(0)	(2)	NI	(2)	(2)	(0)		1	Fp	2		4029	Long-chain alkylphenol (C14-C18)
2476	Long chain alkylphenol (C18-C30)	(0)	NI	(0)	(NR)	(1)	(0)	(0)	(0)	(2)	NI	(2)	(2)	(0)		1	Fp	2		4040	Long-chain alkylphenol (C18-C30)
1457	Long-chain polyetheramine in alkyl(C2-C4)benzenes	NI	NI	NI	NR	2	NI	0	0	(2)	NI	(2)	2	2		3	Fp	2			
1865	Lubrizol polyolefin anhydride	0	NI	0	NR	1	NI	0	0	(2)	NI	(2)	1	(2)		1	Fp	2		605	Polyolefin anhydride
2199	L-Lysine solution (50% or less)	0	0	0	R	1	0	0	0	0	NI	0	1	NI		1	D	1		2306	L-Lysine solution (60% or less)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
71	Magnesium alkyl (long chain) salicylate (overbased) in mineral oil (LOA)	(0)	NI	(0)	NR	(2)	NI	0	0	(1)	NI	(1)	(1)	(1)	Ss	1	S	2		429	Magnesium long-chain alkyl salicylate (C11+)
915	Magnesium chloride	Inorg	0	0	Inorg	1	0	0	0	(0)	NI	(0)	0	0		0	D	0	7786-30-3	427	Magnesium chloride solution
916	Magnesium hydroxide slurry	Inorg	0	0	Inorg	0	NI	0	0	(1)	NI	(1)	(0)	1		0	S	1	1309-42-8	428	Magnesium hydroxide slurry
2356	Magnesium lignosulphonate solutions	(0)	NI	(0)	(NR)	(0)	NI	0	0	(0)	NI	(0)	(0)	(0)		1	D	0		3116	Ligninsulphonic acid, magnesium salt solution
1967	Magnesium long chain alkaryl sulphonate (C11-C50) (LOA)	0	NI	0	NR	0	NI	0	0	(2)	NI	(2)	1	2		1	Fp	2		430	Magnesium long-chain alkaryl sulphonate (C11-C50)
2528	Maleic acid/Acrylic acid/Ethenylsulphonic acid/Ethenylphosphonic acid polymer, sodium salt in aqueous/ethylene glycol solution	0	NI	0	(NR)	0	0	(0)	(0)	(3)	NI	(3)	(2)	(3)	Ss	2	D	3		4237	Maleic acid/Acrylic acid/Ethenylsulphonic acid/Ethenylphosphonic acid polymer, sodium salt in aqueous/ethylene glycol solution
2412	Maleic acid/allyl sulphonic acid copolymer with phosphonate groups, partial sodium salt (aqueous solution)	0	NI	0	NR	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		2	D	0		3688	Maleic acid/allyl sulphonic acid copolymer with phosphonate groups, partial sodium salt (aqueous solution)
2573	Maleic acid copolymer solution	0	NI	0	NR	1	0	0	0	(2)	NI	(2)	1	2		0	D	2	113221-69-5		
921	Maleic anhydride	1	NI	1	R	2	0	1	2	(3)	NI	(3)	3	3	SsSr	1	D	3	108-31-6	431	Maleic anhydride
2410	Maleic anhydride - sodium allylsulphonate copolymer (aqueous solution)	0	NI	0	NR	1	NI	0	0	(0)	NI	(0)	(0)	0		1	D	0		3686	Maleic anhydride-sodium allylsulphonate copolymer solution
2348	Maltitol syrup	0	NI	0	R	0	NI	0	0	(0)	NI	(0)	0	0		1	D	0		3078	Maltitol solution
2305	Mango kernel oil (containing less than 10% free fatty acids)	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		3035	Mango kernel oil
925	2-Mercaptobenzothiazol	2	1	1	NR	4	2	0	0	(0)	NI	(0)	0	0	Ss	0	S	2	149-30-4	432	Mercaptobenzothiazol, sodium salt solution
2495	2-Mercaptoethanol	0	NI	0	NR	1	NI	2	2	2	NI	2	2	3	SsT	2	D	3	60-24-2	4129	2-Mercaptoethanol
946	Mesityl oxide	1	NI	1	R	(1)	NI	1	0	2	NI	2	2	2		3	D	2	141-79-7	433	Mesityl oxide
202	Metam-sodium (ISO)	0	NI	0	NR	4	NI	1	2	(2)	NI	(2)	2	1	Ss	0	D	2	137-42-8	434	Metam sodium solution
2288	Methacrylic acid-alkoxypoly (alkylene oxide) methacrylate co-polymer sodium salt (45% or less solution)	NI	0	0	NR	1	NI	0	(0)	(1)	NI	(1)	1	0		0	D	1		2819	Methacrylic acid - alkoxypoly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)
948	Methacrylic acid, inhibited	0	NI	0	R	2	0	1	2	2	NI	2	3	3		2	D	3	79-41-4	435	Methacrylic acid
2046	Methacrylic resin in 1,2 Dichloroethane solution	1	1	1	NR	2	0	(1)	(0)	(2)	NI	(2)	(1)	(2)	C	4	SD	3		436	Methacrylic resin in ethylene dichloride
949	Methacrylonitrile	0	NI	0	R	2	0	2	2	3	NI	3	1	1	Ss	4	ED	3	126-98-7	437	Methacrylonitrile
2561	Methanesulphonic acid	0	NI	0	R	0	0	1	1	(3)	NI	(3)	3	3		1	D	3	75-75-2		
951	Methanol	0	NI	0	R	0	0	(2)	(2)	(2)	NI	(2)	2	2	T	4	DE	3	67-56-1	441	Methyl alcohol (*)
2452	(2-Methoxymethylethoxy)propanols	0	NI	0	R	0	(0)	0	0	(0)	NI	(0)	0	0		2	D	0			

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
954	Methyl acetate	0	NI	0	R	1	NI	0	0	0	NI	0	1	2		4	DE	2	79-20-9	438	Methyl acetate
335	Methyl acetoacetate	0	NI	0	R	1	NI	0	0	(2)	NI	(2)	1	2		2	D	2	105-45-3	439	Methyl acetoacetate
955	Methyl acrylate	0	NI	0	R	3	NI	1	1	2	NI	2	2	3	MSs	4	D	3	96-33-3	440	Methyl acrylate
957	Methylamine solution 42% or less	0	NI	0	R	2	NI	2	(2)	3	NI	3	3	3	M	4	DE	3	74-89-5	455	Methylamine solutions (42% or less)
958	Methyl amyl alcohol	1	NI	1	R	1	NI	1	0	2	NI	2	1	3		3	FED	3	108-11-2	457	Methylamyl alcohol
959	Methyl amyl ketone	1	NI	1	NI	1	NI	1	0	0	NI	0	1	1		3	FED	2	110-43-0	442	Methyl amyl ketone
961	N-Methyl aniline	1	NI	1	(NR)	3	1	1	1	(2)	NI	(2)	(1)	1		2	FD	2	100-61-8	3107	N-Methylaniline
2399	alpha-Methylbenzyl alcohol with acetophenone (15% or less)	1	NI	1	(R)	(1)	NI	(1)	(0)	(3)	NI	(3)	(2)	(3)	R	1	Fp	3	98-85-1	3634	alpha-Methylbenzyl alcohol with acetophenone (15% or less)
964	2-Methyl-2-butanol	1	1	1	(R)	(1)	0	1	1	1	NI	1	3	2		4	D	3	75-85-4	685	tert-Amyl alcohol
965	3-Methyl-1-butanol	1	1	1	(R)	1	0	1	0	(2)	NI	(2)	2	2		3	FED	2	123-51-3	126	Amyl alcohol, primary
																				396	Isoamyl alcohol
967	Methyl butenol	0	NI	0	R	2	NI	1	0	(2)	NI	(2)	2	2		3	D	2	556-82-1	458	Methylbutenol
969	Methyl tert-butyl ether	1	NI	1	NR	1	0	0	0	0	NI	0	2	1		4	ED	2	1634-04-4	454	Methyl tert-butyl ether
970	Methyl butyl ketone	1	NI	1	(R)	1	(0)	0	0	0	NI	0	1	1	RN	3	FED	3	591-78-6	443	Methyl butyl ketone
968	Methylbutynol	0	NI	0	NR	1	NI	1	1	0	NI	0	0	2		3	D	2	115-19-5	52	2-Methyl-2-hydroxy-3-butyne
																				459	Methylbutynol
973	Methyl butyrate	1	NI	1	NI	(2)	NI	0	0	2	NI	2	2	(2)		4	ED	2	623-42-7	444	Methyl butyrate
976	Methyl cyclohexane	3	3	3	NR	3	1	0	0	1	NI	1	1	1	A	4	E	2	108-87-2	460	Methylcyclohexane
977	Methyl cyclopentadiene, dimer	4	NI	4	(NR)	(3)	NI	0	(0)	(2)	NI	(2)	(2)	(2)		3	F	2	26472-00-4	461	Methylcyclopentadiene dimer
2213	Methyl cyclopentadienyl manganese tricarbonyl (60-70%) in mineral oil	3	NI	3	NR	4	NI	2	3	4	NI	4	1	1		2	S	3		2692	Methylcyclopentadienyl manganese tricarbonyl
1491	N-Methyldiethanolamine	0	NI	0	R	2	NI	1	0	(2)	NI	(2)	1	2		1	D	2	105-59-9	445	Methyl diethanolamine
2555	N,N'-methylene-bis(5-methyloxazolidine)	0	NI	0	R	3	1	1	2	(3)	NI	(3)	3B	3	CMSsT	2	D	3	66204-44-2	4296	N,N' methylene-bis(5-methyloxazolidine)
2235	Methylene dithiocyanate	2	NI	2	NR	5	NI	2	0	4	NI	4	3	3	Ss	NI	NI	3	6317-18-6	2693	Methylene bisthiocyanate
984	2-Methyl-6-ethylaniline	2	NI	2	NR	2	NI	1	1	(2)	NI	(2)	0	2		1	FD	2	24549-06-2	54	2-Methyl-6-ethyl aniline
986	2-Methyl-5-ethylpyridine	2	NI	2	R	2	0	1	2	(3)	NI	(3)	3	3		2	FD	3	104-90-5	53	2-Methyl-5-ethyl pyridine
987	Methyl formate	0	NI	0	R	1	NI	1	0	2	NI	2	0	2		4	DE	2	107-31-3	447	Methyl formate
2048	N-Methylglucamine, 60% aqueous solution	0	NI	0	R	0	NI	1	0	(3)	NI	(3)	0	3		1	D	3	6284-40-8	482	N-Methylglucamine solution (70% or less)
2397	2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)	0	NI	0	R	0	NI	2	2	3	NI	3	0	1		1	FD	2	4553-62-2	3632	2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)
988	Methyl heptyl ketone	3	NI	3	R	3	NI	0	0	NI	NI	NI	NI	NI		2	FED	NI	821-55-6	448	Methyl heptyl ketone
971	Methyl isobutyl ketone	1	NI	1	R	1	0	1	0	2	NI	2	2	3		4	FED	3	108-10-1	449	Methyl isobutyl ketone
995	Methyl methacrylate	1	NI	1	R	2	NI	0	0	0	NI	0	2	2	Ss	4	ED	2	80-62-6	450	Methyl methacrylate

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
996	3-Methyl-3-methoxy butanol	1	NI	1	NR	0	NI	0	(0)	(2)	NI	(2)	1	(2)		2	FD	2		59	3-Methyl-3-methoxybutanol
997	3-Methyl-3-methoxybutyl acetate	1	NI	1	NR	0	NI	0	(0)	NI	NI	NI	NI	NI		2	F	NI		60	3-Methyl-3-methoxybutyl acetate
1999	Methyl naphthalenes	4	NI	4	(NR)	(4)	NI	1	0	(2)	NI	(2)	1	1		1	F	2		451	Methyl naphthalene (molten)
1000	2-Methyl pentane	3	NI	3	NI	4	NI	(0)	(0)	(2)	NI	(2)	(2)	(2)		4	E	2	107-83-5	2684	2-Methylpentane
2200	2-Methyl-1,3-propanediol	0	0	0	NR	0	0	0	0	(0)	NI	(0)	0	0		1	D	0		2213	2-Methyl-1,3-propanediol
1003	Methyl propyl ketone	0	NI	0	(R)	0	NI	1	0	(2)	NI	(2)	1	2		4	FED	2	107-87-9	452	Methyl propyl ketone
1005	2-Methyl pyridine	1	NI	1	R	1	NI	1	2	1	NI	1	3A	3		3	D	3	109-06-8	55	2-Methylpyridine
1006	3-Methylpyridine	1	NI	1	R	1	NI	1	2	2	NI	2	3	3		3	D	3	108-99-6	61	3-Methylpyridine
1007	4-Methylpyridine	1	NI	1	(R)	1	NI	1	2	2	NI	2	3	3		3	D	3	108-89-4	63	4-Methylpyridine
1008	N-Methylpyrrolidone	0	NI	0	R	1	NI	0	0	2	NI	2	1	2	R	1	D	3	872-50-4	481	N-Methyl-2-pyrrolidone
86	Methyl salicylate	2	NI	2	R	2	NI	1	1	(2)	NI	(2)	2	1	R	1	SD	3	119-36-8	453	Methyl salicylate
1010	alpha-Methylstyrene	3	3	3	NR	3	NI	0	0	1	NI	1	2	1	M	3	FE	3	98-83-9	107	alpha-Methylstyrene
993	3-(Methylthio) propionaldehyde	0	NI	0	R	3	1	1	1	2	NI	2	2	3	SsN	3	D	3	3268-49-3	2368	3-(methylthio)propionaldehyde
113	Metolachlor (ISO)	2	2	2	NR	5	1	1	0	(2)	NI	(2)	1	0	Ss	1	S	2	51218-45-2	469	N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide
2306	Mixed acid oil	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	NI	(1)	(1)	1		1	Fp	2		3036	Acid oil mixture from soyabean, corn (maize) and sunflower oil refining
2381	Mixture of dithiophosphate salts in water	1	0	1	NR	2	NI	0	0	(2)	NI	(2)	2	2		1	D	2		3424	Dialkyl thiophosphates sodium salts solution
1013	Molasses	0	NI	0	R	0	NI	0	0	0	NI	0	0	0		2	D	0		462	Molasses
2344	Molybdenum polysulphide long chain alkyl dithiocarbamide complex	4	2	2	NR	2	0	0	0	(2)	NI	(2)	2	2		1	Fp	2		3108	Molybdenum polysulphide long chain alkyl dithiocarbamide complex
1017	Mononitrobenzene	1	1	1	R	3	(4)	(2)	2	2	NI	2	1	1	CRT	2	SD	3	98-95-3	501	Nitrobenzene
1018	Morpholine	0	0	0	R	2	NI	1	2	2	NI	2	3	3		3	D	3	110-91-8	463	Morpholine
1019	Myrcene	4	NI	4	R	4	1	0	0	(2)	NI	(2)	2	NI		3	F	2	123-35-3	465	Myrcene
2459	Naphthalene, crude (molten) (!)	NI	(3)	(3)	NR	3	0	0	(0)	(2)	NI	(2)	2	2	CMT	2	Fp	3	85117-10-8	3858	Naphthalene crude (molten)
1	Naphthalene (molten)	3	3	3	NR	4	1	1	(0)	(1)	NI	(1)	0	0	T	2	S	2	91-20-3	493	Naphthalene (molten)
1020	Naphthalene sulphonic acid condensed with formaldehyde, sodium salt, solution	0	1	1	(NR)	1	NI	0	(0)	(1)	NI	(1)	0	1		0	D	1	9084-06-4	494	Naphthalenesulphonic acid-Formaldehyde copolymer, sodium salt solution
1025	Neodecanoic acid	4	NI	4	NR	2	NI	0	0	(2)	NI	(2)	0	2		1	Fp	2	26896-20-8	496	Neodecanoic acid
1029	Nitric acid (90% or less)	Inorg	NI	0	Inorg	2	NI	(3)	(1)	3	NI	3	3C	3		0	D	3	7697-37-2	498	Nitric acid (70% and over)
																				499	Nitric acid (less than 70%)
1030	Nitrilotriacetic acid,trisodium salt	0	NI	0	R	1	0	1	(0)	0	NI	0	1	1	CMR	0	D	3	5094-31-3	500	Nitrilotriacetic acid, trisodium salt solution
1037	Nitroethane	0	NI	0	NR	2	NI	1	0	(2)	NI	(2)	(0)	(1)		3	SD	2	79-24-3	502	Nitroethane

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2245	Nitroethane (80%)/Nitropropane (20%)	0	1	1	NR	2	NI	1	1	2	NI	2	0	1		3	E	2		503	Nitroethane(80%)/ Nitropropane(20%)
2270	Nitroethane, 1-Nitropropane (each 15% or more) mixture	(0)	(1)	(1)	(NR)	(2)	NI	1	1	2	NI	2	0	1		3	FED	2		2212	Nitroethane, 1-Nitropropane (each 15% or more) mixture
1041	2-Nitrophenol	1	2	2	R	3	(2)	0	0	(1)	NI	(1)	1	1		3	S	1	88-75-5	536	o-Nitrophenol (molten)
1044	1-Nitropropane	0	1	1	NR	1	NI	1	0	2	NI	2	0	1		3	FED	2	108-03-2	2747	1-Nitropropane
1045	2-Nitropropane	0	1	1	NR	2	NI	2	0	2	NI	2	0	0	C	3	FED	3	79-46-9	2748	2-Nitropropane
2242	1- or 2- Nitropropane	0	1	1	NR	1	NI	2	0	2	NI	2	0	1	C	3	FED	3		20	1- or 2-Nitropropane
1046	Nitropropane (60%) Nitroethane (40%) (mixture)	0	1	1	NR	2	NI	1	0	2	NI	2	0	1	C	3	FED	3		504	Nitropropane (60%)/Nitroethane (40%) mixture
1049	o-Nitrotoluene	2	2	2	NR	2	(1)	1	0	(2)	NI	(2)	0	1	CMR	1	S	3	88-72-2	2745	o-Nitrotoluene
1051	p-Nitrotoluene	2	1	1	NR	3	0	1	0	(2)	NI	(2)	0	1	R	1	S	3	99-99-0	2746	p-Nitrotoluene
2241	o- or p-Nitrotoluenes	2	2	2	NR	3	(1)	1	0	(2)	NI	(2)	0	1	CMR	1	S	3		532	o- or p-Nitrotoluenes
1054	Nonane	4	NI	4	R	4	NI	0	0	1	NI	1	1	1	A	3	FE	2	111-84-2	506	Nonane (all isomers)
1055	Nonanoic acid	3	NI	3	R	2	NI	0	0	(3)	NI	(3)	2	3		0	F	3	112-05-0	507	Nonanoic acid (all isomers)
1060	1-Nonene	4	NI	4	NI	3	NI	0	0	0	NI	0	1	1	A	3	FE	2	27215-95-8	2680	1-Nonene
2222	Nonene (all isomers)	4	NI	4	NI	3	NI	0	0	0	NI	0	1	1	A	4	FE	2		508	Nonene (all isomers)
1766	Nonyl acetate	4	NI	4	NI	NI	NI	0	0	NI	NI	NI	NI	NI		2	F	NI	143-13-5	509	Nonyl acetate
1061	Nonyl methacrylate monomer	5	NI	5	R	3	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		2	F	1	2696-43-7	511	Nonyl methacrylate monomer
1062	Nonyl phenol	5	4	4	NR	5	3	1	0	(3)	NI	(3)	3	3		1	Fp	3	25154-52-3	512	Nonylphenol
1063	Nonyl(C6-C12)phenol poly(4-12)ethoxylate	4	NI	4	NR	3	1	0	0	(2)	NI	(2)	2	1		1	D	2		97	Alkyl(C7-C11)phenol poly(4-12) ethoxylate
																				513	Nonylphenol poly(4+)ethoxylate
2559	9-Octadecen-1-amine, (Z)-	(4)	NI	(4)	R	4	2	1	(0)	(3)	NI	(3)	3	(3)		1	F	3	112-90-3		
2398	Octamethylcyclotetrasiloxane	5	5	5	NR	0	3	0	0	0	NI	0	0	0		3	F	1		3633	Octamethylcyclotetrasiloxane
1072	Octane	5	NI	5	(R)	4	NI	(0)	(0)	0	NI	0	0	0	A	4	FE	2	111-65-9	538	Octane (all isomers)
1074	Octanoic acid (Caprylic acid)	3	NI	3	R	1	NI	0	0	(3)	NI	(3)	3	3		1	F	3	124-07-2	539	Octanoic acid (all isomers)
1075	1-Octanol	3	NI	3	R	2	0	1	0	(2)	NI	(2)	2	2		2	Fp	2	111-87-5	540	Octanol (all isomers)
																				2676	1-Octanol
1079	Octene (all isomers)	4	NI	4	NR	3	NI	0	0	0	NI	0	2	1	A	4	FE	2		541	Octene (all isomers)
1080	Octyl acetate	3	NI	3	R	2	NI	0	0	(1)	NI	(1)	1	NI		2	FD	1	112-14-1	483	n-Octyl acetate
1082	Octyl decyl adipate	0	NI	0	(R)	(0)	(0)	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	110-29-2	543	Octyl decyl adipate
2461	n-Octyl mercaptan	4	3	3	NR	5	NI	1	0	(1)	NI	(1)	1	0	Ss	2	F	3		3742	n-Octyl mercaptan
1965	Olefin/Alkyl ester copolymer (molecular weight 2000+) (LOA)	NI	NI	0	NR	0	NI	0	0	(0)	NI	(0)	0	0		2	Fp	2		546	Olefin-Alkyl ester copolymer (molecular weight 2000+)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2385	Olefin mixture (C7-C9)	5	4	4	NR	4	NI	(0)	0	0	NI	0	2	1	A	4	E	2	97593-00-5	3548	Olefin mixture (C7-C9) C8 rich, stabilized
2243	Olefin mixtures (C5-C7)	3	NI	3	R	3	NI	(0)	(0)	(1)	NI	(1)	(2)	(1)		4	E	2		545	Olefin mixtures (C5-C7)
2321	Olefin mixtures (C5-C15)	(5)	NI	(5)	NR	(4)	NI	(0)	(0)	(2)	NI	(2)	(2)	(1)	A	4	FE	2		544	Olefin mixtures (C5-C15)
2028	Olefins C13 and above, all isomers	5	NI	5	NR	0	NI	0	0	(1)	NI	(1)	(1)	0	A	2	Fp	3		547	Olefins (C13+, all isomers)
2030	alpha-Olefins (C6-C18),mixture	(5)	NI	(5)	NR	(4)	NI	(0)	(0)	(2)	NI	(2)	(2)	(1)	A	4	FE	2		108	alpha-Olefins (C6-C18) mixtures
2516	alpha-Olefins (C12+), mixture	(5)	(5)	(5)	(R)	(0)	NI	(0)	(0)	(1)	(0)	(0)	(1)	(0)	A	(2)	Fp	3		4197	alpha-Olefins (C12+), mixture
1089	Oleic acid	0	NI	0	R	0	NI	0	1	(2)	NI	(2)	1	1		1	Fp	2	112-80-1	548	Oleic acid
1862	Oleylamine	0	NI	0	NR	4	NI	1	(1)	(3)	NI	(3)	3B	3		1	Fp	3		550	Oleylamine
1090	Olive oil	0	NI	0	R	(2)	NI	(0)	(0)	(1)	NI	(1)	1	1		1	Fp	2	8001-25-0	2771	Olive oil
2375	Orange juice	0	0	0	R	0	0	0	0	(0)	NI	(0)	0	0		0	D	0		3151	Orange juice
2382	Orange juice (not concentrated)	0	0	0	R	0	0	0	0	(0)	NI	(0)	0	0		0	D	0		3425	Orange juice (not concentrated)
2413	Oxatetra-azahydroxyalkanoic acid, substituted with acetic acid / acetoxyethanolamine	1	NI	1	R	1	NI	0	0	0	NI	0	0	0		0	D	0		3689	Oxatetra-azahydroxyalkanoic acid, substituted with acetic acid / acetoxyethanolamine
2558	Oxirane, methyl-, polymer with 1,3-diisocyanatomethylbenzene and oxirane (80% in naphtha)	(5)	(5)	(5)	NR	3	0	0	0	(0)	NI	(0)	0	0		2	Fp	2	9052-50-0		
2266	Oxygenated aliphatic hydrocarbon mixture	5	2	(2)	NR	1	NI	0	0	(1)	NI	(1)	1	1		3	FE	2		2825	Oxygenated aliphatic hydrocarbon mixture
2307	Palm acid oil	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	NI	(1)	0	1		1	Fp	2		3037	Palm acid oil
2310	Palm fatty acid distillate	NI	NI	(0)	(R)	(0)	NI	0	(0)	(1)	NI	(1)	0	1		1	Fp	2		3040	Palm fatty acid distillate
2335	Palm kernel fatty acid distillate	(0)	0	0	R	(3)	NI	0	(0)	(2)	NI	(2)	1	2		1	Fp	2		3111	Palm kernel fatty acid distillate
2308	Palm kernel olein (containing less than 5 % free fatty acids)	(0)	NI	(0)	(R)	1	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		3038	Palm kernel olein
2309	Palm kernel stearin (containing less than 5% free fatty acids)	0	(0)	(0)	(R)	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		3039	Palm kernel stearin
2363	Palm Mid Fraction	(0)	NI	(0)	(R)	(0)	NI	0	0	(0)	NI	(0)	(0)	(0)		1	Fp	2		3126	Palm mid-fraction
1094	Palm nut oil	0	NI	0	R	1	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2		2766	Palm kernel oil
1095	Palm nut oil fatty acid	0	NI	0	R	(3)	NI	0	0	(2)	NI	(2)	1	2		1	Fp	2		553	Palm kernel acid oil
2249	Palm oil (containing less than 15% free fatty acids)	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	0	0		1	Fp	2		2764	Palm oil
2364	Palm oil (containing more than 15% and less than 30% free fatty acids)	0	NI	0	R	0	NI	0	0	(2)	NI	(2)	(2)	(2)		1	Fp	2		3127	Non-edible industrial grade palm oil
2576	Palm oil, empty fruit bunch	(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(2)	NI	(2)	(2)	(2)		1	Fp	2	8002-75-3		
1097	Palm oil fatty acid methyl ester	0	NI	0	R	0	NI	0	0	0	NI	0	0	1		1	Fp	2		554	Palm oil fatty acid methyl ester
2550	Palm oil mill effluent oil	(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2	8002-75-3	4291	Palm oil mill effluent oil

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2551	Palm oil mill effluent oil fatty acid distillate	(0)	NI	(0)	(R)	(3)	NI	(0)	(0)	(2)	NI	(2)	(2)	(2)		1	Fp	2	68440-15-3	4292	Palm oil mill effluent oil fatty acid distillate
2552	Palm oil mill effluent oil refined	(0)	NI	(0)	(R)	(1)	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2	8002-75-3		
2250	Palm olein	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	0	0		1	Fp	2		2765	Palm olein
2251	Palm stearin	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	0	0		1	Fp	2		555	Palm stearin
1086	Paraffin wax, highly-refined	(5)	NI	(5)	(NR)	0	(0)	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2	8002-74-2	556	Paraffin wax, highly-refined
2244	Paraffin wax, semi-refined	(5)	NI	(5)	NR	0	(0)	(0)	(0)	(0)	NI	(0)	(0)	(0)	T	1	Fp	3		565	Paraffin wax, semi-refined
1098	Paraldehyde	0	0	0	NR	0	NI	1	0	0	NI	0	1	3		3	D	3	123-63-7	557	Paraldehyde
1099	Pentachloroethane	3	2	2	NI	3	1	1	(1)	1	NI	1	(1)	(1)	CT	0	S	3	76-01-7	558	Pentachloroethane
1102	1,3-Pentadiene	2	NI	2	NR	2	NI	0	0	0	NI	0	1	(2)		4	E	2	504-60-9	14	1,3-Pentadiene
2390	1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures.	NI	NI	(3)	(NR)	(3)	NI	(2)	(1)	(3)	NI	(3)	(2)	(2)	CMR	4	E	3		3560	1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures
1103	Pentaethylene hexamine	0	NI	0	NI	4	NI	1	(2)	(3)	NI	(3)	3	(3)	Ss	1	D	3	4067-16-7	560	Pentaethylenehexamine
1105	Pentane	3	NI	3	R	3	NI	0	0	0	NI	0	1	1		4	E	2	109-66-0	561	Pentane (all isomers)
1107	1,5-Pentanedial solution, (5-50%)	0	NI	0	R	3	0	1	0	3	NI	3	3	3	SsSr	0	D	3	111-30-8	362	Glutaraldehyde solutions (50% or less)
1109	Pentanoic acid	1	NI	1	NI	2	NI	1	2	(3)	NI	(3)	3	3		1	FD	3	109-52-4	562	Pentanoic acid
2144	Pentanoic acid (64%)/2-methyl butyric acid (36%) mixture	(1)	NI	(1)	NI	(2)	NI	(1)	(2)	(3)	NI	(3)	3	(3)		2	FD	3		2211	n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture
1110	1-Pentanol	1	1	1	(R)	1	0	1	0	(3)	NI	(3)	2	3		3	FED	3	71-41-0	473	n-Amyl alcohol
1111	2-Pentanol	1	1	1	R	1	0	0	(0)	(2)	NI	(2)	2	2		3	D	2	6032-29-7	637	sec-Amyl alcohol
2418	Pentasodium triphosphate (*)	Inorg	0	0	Inorg	1	NI	NI	NI	NI	NI	NI	NI	NI		0	NI	NI			
1114	1-Pentene	2	NI	2	NI	(2)	NI	(0)	(0)	0	NI	0	(0)	(1)		4	E	2	109-67-1	2679	1-Pentene
1115	2-Pentene	2	NI	2	NI	2	NI	(0)	(0)	(0)	NI	(0)	(0)	(1)		4	E	2	109-68-2	2678	2-Pentene
1992	Pentene (all isomers)	2	NI	2	NI	(2)	NI	(0)	(0)	(0)	NI	(0)	(0)	(1)		4	E	2		563	Pentene (all isomers)
1124	Phenol	1	2	2	R	3	0	2	2	(3)	NI	(3)	3	3		2	S	3	108-95-2	566	Phenol
1135	Phenylxylylethane	5	4	4	NR	(2)	NI	1	0	(1)	NI	(1)	(0)	0		1	F	1	40766-31-2	23	1-Phenyl-1-xylyl ethane
1854	Phosphate esters, alkyl(C12-C14)amine (LOA)	2	NI	2	NR	3	NI	0	(0)	(2)	NI	(2)	1	2		3	FD	2		1345	Phosphate esters, alkyl (C12-C14) amine
2509	[[(phosphonomethyl)imino]bis[ethylenenitrilobis(methylene)]]tetrakisphosphonic acid, ammonium salt solution (60% or less)	0	NI	0	NR	2	(0)	(0)	(0)	(1)	NI	(1)	(1)	(1)		(2)	D	1	70714-66-8	4077	[[(Phosphonomethyl)imino]bis[ethylenenitrilobis(methylene)]]tetrakisphosphonic acid, ammonium salt solution (60% or less)
1138	Phosphoric acid	0	NI	0	Inorg	1	NI	1	1	3	NI	3	3	3		0	D	3	7664-38-2	567	Phosphoric acid
1139	Phosphorus (elemental yellow)	Inorg	(3)	(3)	Inorg	6	4	0	0	0	NI	0	2	1		4	S	2	7732-14-0	568	Phosphorus, yellow or white (*)
1146	Phthalic anhydride (molten)	1	NI	1	R	2	0	1	0	(3)	NI	(3)	1	3	SsSr	1	S	3	85-44-9	569	Phthalic anhydride (molten)
40	alpha-Pinene	4	NI	4	R	4	NI	0	0	0	NI	0	1	(1)	Ss	3	F	3	80-56-8	109	alpha-Pinene

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
41	beta-Pinene	4	NI	4	(R)	4	NI	0	0	0	NI	0	1	(1)	Ss	3	F	3	1330-16-1	141	beta-Pinene
1148	Pine oil	4	NI	4	NR	4	NI	0	0	(1)	NI	(1)	(1)	(1)	Ss	2	Fp	3	8002-09-3	570	Pine oil
2433	Piperazine, 68% aqueous	0	NI	0	NR	2	NI	0	0	2	NI	2	3A	3	SsSrN	2	SD	3	110-85-0	3748	Piperazine, 68% solution
2302	Polyacrylic acid (40% solution)	(2)	NI	(2)	NR	1	NI	0	0	(1)	NI	(1)	1	1		1	D	1		2709	Polyacrylic acid solution (40% or less)
2527	Polyalkene sulphonic acid (C16-C18), sodium salt	(3)	(2)	(3)	(R)	(4)	NI	(1)	(0)	(2)	NI	(2)	(2)	(2)		0	D	2		4236	Polyalkene sulphonic acid (C16-C18), sodium salt solution
2481	Polyalkene sulphonic acid (C20-C28), sodium salt	(5)	(4)	(4)	(NR)	1	0	(1)	(0)	(2)	NI	(2)	(2)	(2)		1	Fp	2		4057	Polyalkene sulphonic acid (C20-C28), sodium salt
1151	Poly(C18-C22)alkyl acrylate in xylene	(3)	NI	(3)	NR	2	NI	0	0	(2)	NI	(2)	2	1		3	Fp	2		580	Polyalkyl (C18-C22) acrylate in xylene
2379	Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	NI	0	0	NR	0	NI	0	0	(0)	NI	(0)	0	0		1	Fp	2		3422	Polyalkylalkenaminesuccinimide, molybdenum oxysulphide
1152	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	1	NI	1	R	1	0	0	0	0	NI	0	2	2		1	D	2		576	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether
2254	Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	1	NI	1	NR	2	1	0	0	0	NI	0	2	2		1	D	2		575	Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate
2358	Poly (2-8) alkylene (C2-C3) glycols/ Polyalkylene (C2-C10) glycols monoalkyl ethers and their borate esters	(1)	NI	(1)	(R)	(1)	(0)	0	0	0	NI	0	2	2		1	D	2		144	Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters
2468	Poly N-alkylmethacrylamide ammonium acrylate copolymer (20% in DEGME)	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI	NI	NI		2	D	NI			
2201	Poly alkyl(C10-C18) methacrylate/ethylene-propylene copolymeer mixture	0	0	0	NR	0	0	0	0	(1)	NI	(1)	1	1	A	1	Fp	3		2188	Polyalkyl (C10-C18) methacrylate/ethylene-propylene copolymer mixture
1984	Poly alkyl methacrylate (C1-C20) (LOA)	(5)	NI	(5)	NR	0	NI	0	0	0	NI	0	0	0		1	Fp	2		2189	Polyalkyl (C10-C20) methacrylate
2512	Poly alkyl(C18-C22)methacrylates/lauryl acrylate/vinyl acetate (40% in naphtha)	(5)	(5)	(5)	NR	0	NI	0	0	(1)	NI	(1)	1	(1)		2	Fp	2			
1136	Polyaluminium chloride (solution)	Inorg	0	0	Inorg	0	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		0	D	1	1327-41-9	584	Polyaluminium chloride solution
1154	Polybutene	0	NI	0	(NR)	(0)	(0)	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2	9003-29-6	585	Polybutene
2055	Polybutenylsuccinimide in oil	5	NI	5	NR	0	NI	(0)	(0)	(0)	NI	(0)	0	(0)		1	Fp	2		586	Polybutenyl succinimide
2246	Poly(2+)cyclic aromatics	4	4	4	NR	(4)	NI	(1)	(1)	(2)	NI	(2)	(1)	(1)	CM	2	S	3		574	Poly(2+)cyclic aromatics
1863	Polyether, borated	0	NI	0	NR	3	1	0	(0)	(1)	NI	(1)	1	0		1	D	1		572	Polyether, borated
1975	Polyether (molecular weight 2000+) (LOA)	0	NI	0	NR	1	NI	0	(0)	(0)	NI	(0)	0	0		1	Fp	2		587	Polyether (molecular weight 1350+)
1991	Polyethylene amines / paraffin mixtures	(5)	NI	(5)	NR	3	0	0	(1)	(3)	NI	(3)	(2)	(3)	Ss	1	Fp	3		591	Polyethylene polyamines (more than 50% C5 -C20 paraffin oil)
1157	Polyethylene glycol	0	NI	0	NR	0	NI	0	0	0	NI	0	1	1		1	D	1	25322-68-3	589	Polyethylene glycol

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1158	Polyethylene glycol dimethyl ether	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	1	(1)		1	D	1	24991-55-7	590	Polyethylene glycol dimethyl ether
2395	Poly(ethylene glycol) methylbutenyl ether (MW >1000)	NI	0	0	R	1	NI	0	0	(0)	NI	(0)	0	0		1	D	0		3501	Poly(ethylene glycol) methylbutenyl ether (MW>1000)
2569	Polyethylene glycol monooleate	(0)	NI	(0)	R	3	0	0	0	(0)	NI	(0)	0	0		1	D	0	9004-96-0		
2533	Polyethylene glycol sorbitol hexaoleate	0	NI	0	R	2	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		4242	Polyethylene glycol sorbitol hexaoleate
2367	Polyethylene polyamines	0	NI	0	NR	3	0	1	0	(3)	NI	(3)	2	(3)	Ss	2	D	3		3131	Polyethylene polyamines
338	Polyferric sulphate solution	Inorg	0	0	Inorg	(2)	NI	1	(1)	(3)	NI	(3)	3	(3)		0	D	3		592	Polyferric sulphate solution
1874	Polyglycerine, sodium salt, solution	0	NI	0	R	0	NI	0	0	(3)	NI	(3)	(2)	3		1	D	3		593	Polyglycerin, sodium salt solution (containing less than 3% sodium hydroxide)
1511	Polyglycerol	NI	NI	NI	NI	NI	NI	0	(0)	(0)	NI	(0)	(0)	(0)		1	D	0		594	Polyglycerol
2287	Poly (iminoethylene)-graft-N-poly (ethyleneoxy) solution (90% or less)	0	0	0	NR	0	NI	0	0	(1)	NI	(1)	0	1		0	D	1		2537	Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)
2192	Polyisobutenamine in aliphatic (C10-C14) solvent	0	0	0	NR	2	NI	0	(0)	(2)	NI	(2)	2	1		2	FED	2		2374	Polyisobutenamine in aliphatic (C10-C14) solvent
2455	(Polyisobutene) amino products in aliphatic hydrocarbons	0	NI	(5)	NR	2	NI	0	0	(1)	NI	(1)	1	0	A	2	Fp	3		3811	(Polyisobutene) amino products in aliphatic hydrocarbons
2127	Polyisobutenyl anhydride adduct	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	0	1		1	FD	1		2256	Polyisobutenyl anhydride adduct
2264	Poly(4+)isobutylene	0	NI	0	NR	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		578	Polyisobutylene (MW≤224)
1153	Polymethylene polyphenyl isocyanate	NI	(2)	(2)	NR	0	0	0	0	(2)	NI	(2)	2	2	SsSr	1	S	2	9016-87-9	595	Polymethylene polyphenyl isocyanate
1895	Polyolefin acid, potassium salt	NI	NI	NI	NR	0	NI	0	0	(0)	NI	(0)	0	0		1	NI	0		2199	Potassium salt of polyolefin acid
1970	Polyolefin amide alkeneamine borate (C28-C250) (LOA)	0	NI	0	NR	0	NI	0	0	(0)	NI	(0)	0	(0)		1	Fp	2		600	Polyolefin amide alkeneamine borate (C28-C250)
2104	Polyolefinamide alkene(C16+)amine (LOA)	5	NI	5	NR	0	NI	0	0	(1)	NI	(1)	1	(1)		1	Fp	2		597	Polyolefin amide alkeneamine (C17+)
1971	Polyolefin amide alkeneamine (C28+) (LOA)	0	NI	0	NR	0	NI	0	0	(0)	NI	(0)	1	(1)		1	NI	1		598	Polyolefin amide alkeneamine (C28+)
2256	Polyolefin amide alkeneamine/molybden oxysulphide mixture	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		1	NI	NI		603	Polyolefin amide alkeneamine/molybdenum oxysulphide mixture
1989	Polyolefin amide alkylene amine polyol	0	2	2	NR	0	NI	0	0	(0)	NI	(0)	0	0		1	Fp	3		602	Polyolefin amide alkeneamine polyol
2049	Poly (17+) olefin amine	0	NI	0	NR	2	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	98761-78-5	571	Poly (17+) olefin amine
2107	Polyolefinamine (C28-C250) (LOA)	0	NI	0	NR	2	NI	0	(0)	(2)	NI	(2)	2	(1)		(3)	Fp	2		609	Polyolefinamine (C28-C250)
																				610	Polyolefinamine in alkyl (C2-C4) benzenes
																				611	Polyolefinamine in aromatic solvent

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2095	Polyolefin aminoester salt	0	NI	0	NR	1	NI	0	0	(1)	NI	(1)	1	(1)		2	Fp	2		604	Polyolefin aminoester salts (molecular weight 2000+)
1969	Polyolefin ester (C28-C250) (LOA)	0	NI	0	NR	0	NI	0	0	(0)	NI	(0)	0	0		1	Fp	2		606	Polyolefin ester (C28-C250)
1968	Polyolefin (molecular weight 300+) (LOA)	0	NI	0	NR	0	NI	0	0	0	NI	0	0	0		1	Fp	2		596	Polyolefin (molecular weight 300+)
1980	Polyolefin phenolic amine (C28-C250) (LOA)	0	NI	0	NI	0	NI	0	0	(1)	NI	(1)	(1)	(1)		1	Fp	2		607	Polyolefin phenolic amine (C28-C250)
1976	Polyolefin phosphoro sulphide - barium derivative (C28-C250) (LOA)	0	NI	0	NI	2	NI	0	(0)	(0)	NI	(0)	(0)	(0)		1	S	0		608	Polyolefin phosphorosulphide, barium derivative (C28-C250)
2506	Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-, phosphate	(4)	(3)	(3)	NR	3	(1)	(1)	(1)	(3)	NI	(3)	(2)	(3)		1	S	3	51811-79-1	4158	Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-, phosphate
1442	Polyoxyethylene sorbitan monooleate	3	(2)	3	R	2	0	0	(0)	(0)	NI	(0)	0	0		1	D	0	9005-65-6	577	Poly(20)oxyethylene sorbitan monooleate
2352	Polyoxypropylene diamine	1	NI	1	NR	1	NI	0	0	(3)	NI	(3)	3	3		1	D	3			
2549	Polyphosphoric acids, esters with triethanolamine, sodium salts solution	0	NI	0	NR	1	0	0	0	(0)	NI	(0)	0	0		1	D	0	68131-72-6		
1512	Polypropylene	0	NI	0	NR	(0)	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		1	F	1	9003-07-0	579	Poly(5+)propylene
1159	Polypropylene glycol	0	NI	0	(NR)	1	NI	1	0	(1)	NI	(1)	1	1		1	D	1	25322-69-4	612	Polypropylene glycol
1161	Polysiloxane	NI	4	4	NI	2	NI	0	(0)	(0)	NI	(0)	0	0		3	F	1		275	Dimethylpolysiloxane
																				613	Polysiloxane
2147	Poly (tetramethylene) ether glycol (mw 600-3000)	2	NI	2	NR	3	NI	0	0	(0)	NI	(0)	0	(0)		1	FD	0		2540	Poly(tetramethylene ether) glycol (mw 600-3000)
2572	Pongamia/Karanja seed oil, crude	(2)	NI	(2)	R	(2)	(1)	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	247588-54-1		
2465	Potassium carbonate solution	Inorg	0	0	Inorg	2	NI	0	0	(0)	NI	(0)	2	2		0	D	2		3928	Potassium carbonate solution
1513	Potassium chloride solution	0	0	0	Inorg	1	0	0	(0)	(0)	NI	(0)	0	0		0	D	0	7447-40-7	614	Potassium chloride solution
2345	Potassium chloride solution (less than 26%)	Inorg	0	0	Inorg	0	0	0	(0)	(0)	NI	(0)	0	0		0	D	0		3109	Potassium chloride solution (less than 26%)
2121	Potassium formate solution (75% or more)	0	NI	0	R	0	NI	(0)	(0)	(2)	NI	(2)	2	2		0	D	2	590-29-4	615	Potassium formate solutions (*)
1171	Potassium hydroxide (solution)	Inorg	0	0	Inorg	2	NI	2	(2)	(3)	NI	(3)	3C	3		0	D	3	1310-58-3	616	Potassium hydroxide solution
2484	Potassium iodide	Inorg	(0)	(0)	Inorg	1	0	0	0	(0)	NI	(0)	0	0	T	0	D	2	7681-11-0	4060	Potassium iodide
1497	Potassium oleate	3	NI	3	R	4	NI	(0)	(0)	(1)	NI	(1)	1	1		1	FD	1	143-18-0	617	Potassium oleate
2152	Potassium thiosulphate solution (50% or less)	Inorg	0	0	Inorg	2	NI	0	0	(2)	NI	(2)	2	(2)		0	D	2		2335	Potassium thiosulphate (50% or less)
1180	Propanol	0	NI	0	R	0	NI	1	0	0	NI	0	1	2	R	4	D	3	71-23-8	488	n-Propyl alcohol
1183	Propanolamine	0	NI	0	R	2	NI	0	1	(3)	NI	(3)	3	3		2	D	3	156-87-6	485	n-Propanolamine
2420	2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer (aqueous solution)	0	NI	0	R	2	0	0	(0)	(0)	NI	(0)	0	(0)		0	D	0		3696	2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2491	2-Propenoic acid polymer with 4-(1,1-dimethylethyl)phenol, formaldehyde, 2,5-furandione, 2-methyloxirane and oxirane (65% in naphtha/xylene)	(5)	NI	(5)	NR	2	NI	0	0	(0)	NI	(0)	(0)	0	A	3	Fp	3	178603-70-8	4125	2-Propenoic acid polymer with 4-(1,1-dimethylethyl)phenol, formaldehyde, 2,5-furandione, 2-methyloxirane and oxirane (65% in naphtha/xylene)
2435	2-Propenoic acid polymer with furandione (65% in 2-butoxyethanol)	0	NI	0	NR	2	0	1	0	0	NI	0	2	2		2	Fp	2		3750	2-Propenoic acid polymer with furandione (65% in 2-butoxyethanol)
1184	beta-Propiolactone	0	NI	0	R	(2)	NI	2	(2)	4	NI	4	3B	3	CM	2	D	3	57-57-8	142	beta-Propiolactone
1185	Propionaldehyde	0	NI	0	R	2	NI	1	0	1	NI	1	2	2		4	DE	2	123-38-6	619	Propionaldehyde
1186	Propionic acid	0	NI	0	R	2	NI	0	0	(3)	NI	(3)	3B	3		3	D	3	79-09-4	620	Propionic acid
1187	Propionic anhydride	0	NI	0	R	2	NI	0	0	(3)	NI	(3)	2	3		2	FD	3	123-62-6	621	Propionic anhydride
1188	Propionitrile	0	NI	0	NI	0	NI	3	3	4	NI	4	1	2	R	4	D	3	107-12-0	622	Propionitrile
1191	Propyl acetate	1	NI	1	R	2	NI	0	0	0	NI	0	1	1		4	ED	1	109-60-4	487	n-Propyl acetate
1194	Propylamine	0	NI	0	NI	1	NI	2	2	3	NI	3	3	3		4	DE	3	107-10-8	490	n-Propylamine
1196	Propyl benzene	NI	NI	NI	NI	3	NI	NI	NI	NI	NI	NI	NI	NI		3	FE	NI	103-65-1	2686	Propylbenzene
1198	Propyl chloride	2	NI	2	NI	1	NI	0	NI	NI	NI	NI	NI	NI		4	FED	2	540-54-5	489	n-Propyl chloride
2056	Propylene carbonate	0	NI	0	R	0	NI	0	0	(3)	NI	(3)	2	3		1	D	3	108-32-7	624	Propylene carbonate
1201	Propylene dimer	3	NI	3	R	3	NI	NI	NI	NI	NI	NI	NI	NI		4	E	2		625	Propylene dimer
1202	1,2-Propylene glycol	0	NI	0	R	0	0	0	0	0	NI	0	0	0		1	D	0	57-55-6	626	Propylene glycol
1759	Propylene glycol methyl ether acetate	0	NI	0	NR	1	NI	0	0	0	NI	0	0	1		3	D	1	108-65-6	627	Propylene glycol methyl ether acetate
1958	Propylene glycol monoalkyl ether	0	NI	0	NR	0	NI	0	1	0	NI	0	2	3		3	D	3		628	Propylene glycol monoalkyl ether
2057	Propylene glycol phenyl ether	1	NI	1	NI	1	NI	0	0	(1)	NI	(1)	(1)	(1)		1	SD	1	4169-04-4	629	Propylene glycol phenyl ether
76	Propylene oxide	0	NI	0	R	2	NI	1	2	2	NI	2	2	3	CM	4	DE	3	75-56-9	630	Propylene oxide
78	Propylene oxide/Ethylene oxide mixture	0	NI	0	R	1	NI	1	1	3	NI	3	3	3	CMR	4	DE	3		341	Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% by mass
2255	Propylene tetramer	NI	4	4	NR	(4)	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		2	F	1	6842-15-5	631	Propylene tetramer
1207	Propylene trimer	5	4	4	NR	3	2	(0)	(0)	(1)	NI	(1)	(1)	(1)		3	FE	2	13987-01-4	632	Propylene trimer
1213	Pyridine	0	NI	0	R	3	0	1	1	2	NI	2	1	3		4	D	3	110-86-1	634	Pyridine
2131	Pyridine bases	1	NI	1	R	2	NI	2	1	(3)	NI	(3)	3B	3		3	FED	3		1989	Paraldehyde-ammonia reaction product
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	(3)	NI	(3)	(NR)	(4)	(2)	(1)	(0)	(3)	NI	(3)	(3B)	(3)	SsT	3	D	3		4284	Pyridinium, 1-(phenylmethyl)-, alkyl derivatives, chlorides (30% or less)/Ethoxylated nonylphenols (10% or less) in isopropanol (15% or less)/Methanol (3% or less) solution

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2507	Pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	3	NI	3	NR	4	2	NI	NI	NI	NI	NI	(3B)	(3)		3	D	3	68909-18-2	4159	Pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides
2271	Pyrolysis gasoline	(4)	(3)	(3)	(R)	(3)	(1)	1	0	(2)	NI	(2)	2	2	CMT	4	FE	3		1990	Pyrolysis gasoline (containing benzene)
2565	Quaternary ammonium compounds, benzyl-C12-18 (even-numbered)-alkyldimethyl, chlorides	(3)	NI	(3)	(R)	(4)	(1)	(1)	(0)	(3)	NI	(3)	(3B)	(3)		1	FD	3	68391-01-5		
2494	Quaternary ammonium compounds, benzyl-C12-14 (even-numbered)-alkyldimethyl, chlorides solution	3	NI	3	NR	4	NI	1	0	(3)	NI	(3)	3B	3		2	D	3	68424-85-1		
2209	Rape seed oil fatty acid, methyl ester	0	0	0	R	0	NI	0	(0)	(1)	NI	(1)	1	1		1	Fp	2		2576	Rape seed oil fatty acid methyl esters
2315	Rapeseed oil (high erucic acid; containing less than 4% free fatty acids)	0	NI	0	R	(2)	NI	(0)	(0)	(0)	NI	(0)	(1)	(1)		1	Fp	2		3045	Rapeseed oil
2296	Rapeseed oil (Low erucic acid containing less than 4% free fatty acids)	0	NI	0	R	(2)	NI	0	0	0	NI	0	(1)	(1)		1	Fp	2		2956	Rapeseed oil (low erucic acid containing less than 4% free fatty acids)
2312	Rice bran oil (containing less than 15% of free fatty acids)	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	NI	(1)	0	1		1	Fp	2		3043	Rice bran oil
1219	Rosin	3	NI	3	NR	3	NI	0	0	2	NI	2	(1)	1	Ss	1	S	2	8050-09-7	635	Rosin
1220	Rosin soap (disproportionated solution)	3	NI	3	NR	3	NI	0	NI	NI	NI	NI	NI	NI		0	S	NI		636	Rosin soap (disproportionated) solution
1222	Safflower oil (containing less than 5% free fatty acids)	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(1)	NI	(1)	1	1		1	Fp	2	8001-23-8	3041	Safflower oil
2108	Saturated and unsaturated alkyl (C10-C20) phosphite (LOA)	0	NI	0	R	1	NI	0	0	(0)	NI	(0)	0	0		1	Fp	2		96	Alkyl (C10-C20, saturated and unsaturated) phosphite
2311	Shea butter (containing less than 15% free fatty acids)	(0)	NI	(0)	NR	(0)	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2		3042	Shea butter
1514	Silica slurry	Inorg	0	0	Inorg	0	0	(0)	(0)	0	NI	0	(0)	(0)		0	S	0	7631-86-9	2507	Microsilica slurry
1498	Sodium acetate	0	NI	0	R	0	NI	0	0	0	NI	0	1	1		0	D	1	127-09-3	639	Sodium acetate solutions
1234	Sodium aluminate (solution)	Inorg	0	0	Inorg	3	1	(0)	(0)	(3)	NI	(3)	(3)	(3)		0	D	3	11138-49-1	641	Sodium aluminate solution
1235	Sodium aluminosilicate slurry	Inorg	0	0	Inorg	1	0	0	0	0	NI	0	1	1		0	S	1	1344-00-9	643	Sodium aluminosilicate slurry
1475	Sodium benzoate	0	NI	0	R	1	NI	0	(0)	(1)	NI	(1)	0	1		1	D	1	532-32-1	644	Sodium benzoate
2386	Sodium bicarbonate solution (less than 10%)	0	NI	0	Inorg	0	0	0	0	(0)	NI	(0)	0	0		0	D	0	144-55-8	3558	Sodium bicarbonate solution (less than 10%)
1239	Sodium borohydride/sodium hydroxide mixture (solution)	Inorg	0	0	Inorg	2	NI	(2)	(1)	(3)	NI	(3)	(3)	(3)		0	D	3		645	Sodium borohydride (15% or less)/Sodium hydroxide solution (*)
2387	Sodium bromide solution (less than 50%)	Inorg	NI	0	Inorg	0	0	0	0	(1)	NI	(1)	0	1	R	0	D	3	7647-15-6	3410	Sodium bromide solution (less than 50%) (*)
1243	Sodium carbonate	Inorg	0	0	Inorg	1	NI	0	0	2	NI	2	1	2		0	SD	2	497-19-8	646	Sodium carbonate solution (*)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1244	Sodium chlorate solid and solutions (50% or less)	Inorg	0	0	Inorg	1	NI	1	0	(2)	NI	(2)	1	1		0	D	2	7775-09-9	647	Sodium chlorate solution (50% or less) (amended) (*)
2521	Sodium chloride solution	Inorg	0	0	Inorg	0	0	0	0	0	NI	0	1	2		0	D	0		4229	Sodium chloride solution (less than 30%)
487	Sodium dichromate solution	Inorg	0	0	Inorg	4	1	2	2	4	NI	4	2	3	CMSsSr	0	D	3	10588-01-9	649	Sodium dichromate solution (70% or less)
2531	Sodium dodecylpoly(oxyethylene) sulphate solution	(3)	NI	(3)	R	3	NI	(0)	(0)	(3)	NI	(3)	(2)	(3)		1	D	3		4240	Sodium dodecylpoly(oxyethylene) sulphate solution
2451	Sodium dodecyl sulphate (*)	0	NI	0	R	3	1	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI			
1253	Sodium hydrogen sulphide/Ammonium sulphide (mixture)	Inorg	0	0	Inorg	3	NI	(2)	(2)	(3)	NI	(3)	(3)	(3)		4	D	3		653	Sodium hydrosulphide/Ammonium sulphide solution (*)
2262	Sodium hydrogen sulphide (6% or less)/sodium carbonate (3% or less)	0	NI	0	Inorg	1	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		2	D	1		650	Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution
1252	Sodium hydrogen sulphide, solutions	Inorg	0	0	Inorg	1	NI	2	2	(3)	NI	(3)	(3)	3		3	D	3	16721-80-5	652	Sodium hydrosulphide solution (45% or less) (*)
1251	Sodium hydrogen sulphite, solutions	Inorg	0	0	Inorg	1	NI	0	(0)	(0)	NI	(0)	0	0		0	D	0	7631-90-5	651	Sodium hydrogen sulphite solution (45% or less)
2486	Sodium hydroxide (30% or less)/Sodium aluminate (25% or less) solution	Inorg	(0)	(0)	Inorg	3	1	0	(0)	(3)	NI	(3)	3	(3)		1	D	3			
1254	Sodium hydroxide solution	Inorg	0	0	Inorg	2	NI	1	1	3	NI	3	3C	3		0	D	3	1310-73-2	654	Sodium hydroxide solution (*)
1256	Sodium hypochlorite solutions containing 20% and less but more than 2% NaOCl	Inorg	0	0	Inorg	(4)	(1)	0	0	1	NI	1	3	3		0	D	3	7681-52-9	2785	Sodium hypochlorite solution (15% or less)
1255	Sodium hypochlorite solutions containing more than 20% NaOCl	Inorg	0	0	Inorg	5	2	0	0	1	NI	1	3	3		0	D	3	7681-52-9	655	Sodium hypochlorite solution (Full strength solution)
2443	Sodium methylate	NI	NI	(0)	(R)	(2)	NI	NI	NI	NI	NI	NI	NI	NI	T	1	DE	NI		3822	Sodium methylate
2427	Sodium Methylate (21-30% in Methanol)	0	NI	0	R	1	NI	2	(2)	(3)	NI	(3)	3	3	T	3	D	3		3608	Sodium methylate 21-30% in methanol
1259	Sodium nitrate	Inorg	0	0	Inorg	0	NI	(0)	(0)	(0)	NI	(0)	(1)	(1)		NI	SD	1	7631-99-4	656	Sodium nitrate
340	Sodium nitrite	Inorg	0	0	Inorg	3	0	2	(2)	2	NI	2	0	1		0	SD	2	7632-00-0	658	Sodium nitrite solution
2518	Sodium oxalate solution	0	(1)	(1)	R	2	1	1	0	(2)	NI	(2)	(2)	2		0	D	2		4199	Sodium oxalate solution
2284	Sodium perborate monohydrate	Inorg	NI	NI	Inorg	3	NI	1	0	(3)	NI	(3)	2	3		0	NI	3		2948	Sodium perborate monohydrate
1860	Sodium petroleum sulphonate	0	NI	0	(NR)	2	NI	0	(0)	(2)	NI	(2)	1	2		1	S	2		660	Sodium petroleum sulphonate
1487	Sodium polyacrylate solution	0	NI	0	NR	1	0	0	(0)	(1)	NI	(1)	1	1		0	D	1		826	Sodium poly(4+)acrylate solutions
1262	Sodium silicate (solution)	Inorg	0	0	Inorg	2	NI	1	0	(3)	NI	(3)	3	3		0	D	3	1344-09-8	661	Sodium silicate solution
1499	Sodium sulphate (solution)	Inorg	0	0	Inorg	0	0	0	(0)	(1)	NI	(1)	1	1		0	SD	1	7757-82-6	662	Sodium sulphate solutions
1263	Sodium sulphide (solution)	Inorg	0	0	Inorg	3	NI	1	1	(3)	NI	(3)	3A	3		1	D	3	1313-82-2	663	Sodium sulphide solution (15% or less)

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
9	Sodium sulphite (solution)	Inorg	0	0	Inorg	2	NI	0	(0)	(1)	NI	(1)	0	1		0	D	1	7757-83-7	664	Sodium sulphite solution (25% or less)
1771	Sodium tartrate succinate/Sodium tartrate disuccinate mixtures	NI	1	1	NI	1	NI	0	NI	NI	NI	NI	NI	NI		1	D	NI		665	Sodium tartrates/Sodium succinates solution
1264	Sodium thiocyanate	Inorg	0	0	Inorg	2	NI	1	(0)	(1)	NI	(1)	0	0		0	D	1	540-72-7	667	Sodium thiocyanate solution (56% or less)
2215	Sorbitan monooleate	(5)	NI	(5)	R	3	NI	0	NI	NI	NI	NI	0	0		1	Fp	2		2408	Sorbitan monooleate
2532	Sorbitan sesquioleate	0	NI	0	NR	0	1	0	(0)	(2)	NI	(2)	1	0		1	Fp	2	8007-43-0	4241	Sorbitan sesquioleate
1265	Sorbitol	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	(0)	(0)		1	D	0	50-70-4	668	Sorbitol solution
2529	Sorbitol, propoxylated	1	NI	1	NR	1	0	0	0	(0)	NI	(0)	0	0		1	D	0		4238	Sorbitol Propoxylated
2320	Soyabean oil (containing less than 4% free fatty acids)	0	NI	0	R	0	NI	0	(0)	(1)	NI	(1)	(0)	1		1	Fp	2		3050	Soyabean oil
2431	Soybean oil fatty acids, methyl esters	0	NI	0	R	2	NI	0	0	0	NI	0	0	0		1	Fp	2		3737	Soybean Oil Fatty Acid Methyl Ester
2564	Spent bleaching earth vegetable oil fatty acid distillate	(0)	NI	(0)	(R)	(3)	NI	(0)	(0)	(2)	NI	(2)	(2)	(2)		1	Fp	2	68440-15-3	4322	Spent bleaching earth vegetable oil fatty acid distillate
2563	Spent bleaching earth vegetable oil (up to 20% free fatty acids, less than 1% hexane)	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(2)	NI	(2)	(2)	(2)		1	Fp	2	8002-75-3	4321	Spent bleaching earth vegetable oil (up to 20% free fatty acids, less than 1% hexane)
1274	Styrene butadiene rubber latex	0	NI	0	NR	0	NI	0	0	(1)	NI	(1)	0	1		0	D	1		414	Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber
1273	Styrene (monomer)	3	(2)	3	R	3	NI	1	0	2	NI	2	2	2	CM	3	FE	3	100-42-5	669	Styrene monomer
1972	Sulpho hydrocarbon (C3-C88) (LOA)	4	NI	4	NR	2	NI	0	0	0	NI	0	0	0		2	Fp	2		672	Sulphohydrocarbon (C3-C88)
1277	Sulpholane	0	1	1	NR	2	0	1	0	0	NI	0	1	2		1	SD	2	126-33-0	673	Sulpholane
1760	Sulphonated polyacrylate solution	NI	0	0	NI	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		0	D	0		674	Sulphonated polyacrylate solution
906	Sulphur	Inorg	0	0	Inorg	0	NI	0	0	(1)	NI	(1)	1	1		1	S	1	7704-34-9	675	Sulphur (molten) (*)
1280	Sulphuric acid	0	NI	0	Inorg	2	NI	0	(0)	3	NI	3	3C	3	C	0	D	3	7664-93-9	549	Oleum
																				676	Sulphuric acid
																				677	Sulphuric acid, spent
1853	Sulphurized fat(C14-C20) (LOA)	0	NI	0	NR	1	NI	0	(0)	(1)	NI	(1)	0	(1)		1	FD	1		2257	Sulphurized fat (C14-C20)
1855	Sulphurized polyolefinamide alkene(C28-C250)amine (LOA)	0	NI	0	NR	0	NI	0	0	(0)	NI	(0)	0	0		1	FD	0		2258	Sulphurized polyolefinamide alkene (C28-C250) amine
1283	Sunflower oil	0	NI	0	R	0	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2	8001-21-6	2782	Sunflower seed oil
2448	Tall oil acids/linoleic acid dimer/polyalkylenepolyamines/dodecylbenzenesulphonic acid complexes in naphtha/isopropanol	0	NI	0	NR	1	NI	0	0	(0)	NI	(0)	0	0	CM	3	Fp	3		3866	Tall oil acids/linoleic acid dimer/polyalkylenepolyamines/dodecylbenzenesulphonic acid complexes in naphtha/isopropanol

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2497	Tall oil acids reaction products with diethylenetriamine and acrylic acid in ethylene glycol	3	NI	3	R	2	NI	0	0	(1)	NI	(1)	0	1	Ss	1	D	2	85586-18-1	4131	Tall oil acids reaction products with diethylenetriamine and acrylic acid in ethylene glycol
2492	Tall oil acids reaction products with triethanolamine	4	NI	4	NR	2	NI	0	0	(1)	NI	(1)	1	0		1	Fp	2	67784-78-5	4126	Tall oil acids reaction products with triethanolamine
1285	Tall oil, crude and distilled	(4)	NI	(4)	(R)	(2)	NI	0	0	(0)	NI	(0)	0	0	Ss	1	Fp	2	68187-71-3	678	Tall oil (crude and distilled)
2283	Tall oil, distilled	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	0	(0)		1	Fp	2		2890	Tall oil, distilled
1864	Tall oil fatty acid, barium salt	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	NI	(2)	1	2		1	S	2		680	Tall oil fatty acid, barium salt
1287	Tall oil fatty acid (resin acids less than 20%)	0	0	0	R	0	0	0	0	(1)	NI	(1)	1	0		1	Fp	2	61790-12-3	679	Tall oil fatty acid (resin acids less than 20%)
2508	Tall oil fatty acids reaction products with 2-[(2-aminoethyl)amino]ethanol, di-ethyl sulphate quaternized	(3)	NI	(3)	NR	5	2	NI	NI	NI	NI	NI	(2)	(3)	Ss	4	D	3	70955-34-9	4160	Tall oil fatty acids reaction products with 2-[(2-aminoethyl)amino]ethanol, di-ethyl sulphate quaternized
2554	Tall-oil fatty acids reaction products with diethylenetriamine	2	NI	2	NR	4	1	0	(0)	(3)	NI	(3)	3A	3	Ss	1	Fp	3	1226892-43-8		
2323	Tall oil pitch	3	NI	3	NR	0	0	0	0	(0)	NI	(0)	0	(0)		1	Fp	2		3051	Tall oil pitch
2432	Tall oil soap, crude	0	NI	0	R	2	0	(0)	(0)	(3)	NI	(3)	(3)	(3)	Ss	1	Fp	3		3735	Tall oil soap, crude
1286	Tall oil soap (disproportionated solution)	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	NI	(2)	1	2		0	D	2		681	Tall oil soap (disproportionated) solution
1288	Tallow	0	NI	0	R	0	NI	0	0	(0)	NI	(0)	(0)	(0)		1	Fp	2	61789-21-6	682	Tallow
2482	Tallowamidopropylamine Oxide in propylene glycol (70% or less)	NI	(2)	(2)	(R)	(4)	(2)	(1)	(1)	(3)	NI	(3)	(3)	(3)		1	D	3			
1289	Tallow fatty acid	0	NI	0	R	0	NI	0	(0)	(0)	NI	(0)	(0)	(0)		1	Fp	2		684	Tallow fatty acid
53	1,1,2,2-Tetrachloroethane	2	2	2	NR	3	0	2	0	2	NI	2	2	2		0	SD	2	79-34-5	687	Tetrachloroethane
1295	1,1,2,2-Tetrachloroethylene	3	2	2	NR	(3)	2	0	0	0	NI	0	2	1	C	0	S	3	127-18-4	564	Perchloroethylene
1296	Tetrachloromethane	2	2	2	NR	3	0	0	0	0	NI	0	1	1	CT	0	S	3	56-23-5	178	Carbon tetrachloride
1298	Tetradecanoic acid (Myristic acid)	5	NI	0	R	0	NI	0	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	544-63-8	347	Fatty acid (saturated C13+)
																				491	n-Tetradecanoic acid
1301	Tetraethylene glycol	0	NI	0	NR	0	NI	0	0	0	NI	0	1	1		1	D	1	112-60-7	688	Tetraethylene glycol
1302	Tetraethylene pentamine	0	NI	0	NR	3	NI	0	2	(3)	NI	(3)	3	3	Ss	1	D	3	112-57-2	689	Tetraethylene pentamine
1303	Tetraethyl lead	4	5	5	NR	5	NI	3	2	4	NI	4	2	2	RN	3	S	3	78-00-2	464	Motor fuel anti-knock compound (containing lead alkyls)
1304	Tetrahydrofuran	0	NI	0	R	0	NI	0	(0)	0	NI	0	1	2		4	DE	2	109-99-9	690	Tetrahydrofuran
1305	Tetrahydronaphthalene	3	3	3	NR	3	NI	0	0	(2)	NI	(2)	2	0		2	F	2	119-64-2	691	Tetrahydronaphthalene
1307	1,2,3,4-Tetramethylbenzene	4	NI	4	NI	4	NI	0	(0)	(1)	NI	(1)	1	(1)		2	F	1	488-23-3	692	Tetramethylbenzene (all isomers)
2400	Tetrapotassium pyrophosphate	Inorg	0	0	Inorg	1	NI	0	NI	NI	NI	NI	NI	NI		0	D	NI	7320-34-5	3635	Tetrapotassium pyrophosphate

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
2575	Tetrasodium 4-amino-3,6-bis(5-[4-chloro-6-(2-hydroxyethylamino)-1,3,5-triazin-2-ylamino]-2-sulphonatophenylazo)-5-hydroxynaphthalene-2,7-disulphonate (containing > 35% sodium chloride and sodium acetate)	0	NI	0	NR	0	0	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	85665-98-1		
2496	Thioglycolic acid	0	NI	0	R	2	NI	2	2	3	NI	3	3B	3		1	D	3	68-11-1	4130	Thioglycolic acid
2210	Thixatrol plus	5	NI	5	R	3	NI	0	0	0	NI	0	1	1		NI	S	1		2699	Thixatrol Plus
2080	Titanium dioxide slurry	Inorg	1	1	Inorg	1	NI	0	0	0	NI	0	1	1		0	S	1	13463-67-7	2259	Titanium dioxide slurry
330	Toluene	2	2	2	R	3	0	0	0	0	NI	0	2	2	RAN	4	E	3	108-88-3	693	Toluene
1315	Toluene diisocyanate	(3)	1	1	NR	2	NI	0	(0)	4	NI	4	3	3	CSsSr	1	S	3	584-84-9	694	Toluene diisocyanate
1316	Toluidines	1	1	1	R	4	2	1	0	(2)	NI	(2)	2	2	CM	2	FD	3		537	o-Toluidine
1317	2,4-Tolylenediamine	0	2	2	NR	3	0	2	2	4	NI	4	2	3	CMSs	1	Fp	3	95-80-7	695	Toluenediamine
2292	Tolyl triazole	1	NI	1	NR	2	0	1	0	(2)	NI	(2)	(1)	2		1	S	2		696	Tolyl triazole
1319	Tributyl phosphate	4	2	2	R	3	0	1	0	2	NI	2	2	2		1	F	2	126-73-8	697	Tributyl phosphate
2191	1,2,3-Trichlorobenzene	4	4	4	NR	4	2	1	0	(2)	NI	(2)	2	2		1	S	2		2288	1,2,3-Trichlorobenzene (molten)
1323	1,2,4-Trichlorobenzene	4	5	5	NR	4	1	1	0	(2)	NI	(2)	2	2	M	1	S	3	120-82-1	7	1,2,4-Trichlorobenzene
1326	1,1,1-Trichloroethane	2	NI	2	NR	2	NI	0	0	0	NI	0	2	2		0	SD	2	71-55-6	1	1,1,1-Trichloroethane
1327	1,1,2-Trichloroethane	2	1	1	NR	2	0	1	0	1	NI	1	2	1		0	SD	2	79-00-5	3	1,1,2-Trichloroethane
329	1,1,2-Trichloro-ethylene	2	2	2	NR	3	NI	0	0	0	NI	0	2	2	CM	0	SD	3	79-01-6	698	Trichloroethylene
1328	Trichloromethane	1	1	1	NR	2	0	2	0	2	NI	2	1	1	CT	0	SD	3	67-66-3	186	Chloroform
1329	1,2,3-Trichloropropane	2	2	2	NR	2	0	2	2	2	NI	2	2	2	C	2	SD	3	96-18-4	6	1,2,3-Trichloropropane
1330	1,1,2-Trichloro-1,2,2-trifluoroethane	3	2	2	NR	3	0	0	0	0	NI	0	1	1		0	S	1	76-13-1	2	1,1,2-Trichloro-1,2,2-Trifluoroethane
1331	Tricresyl phosphate (less than 1% ortho-isomers)	5	(3)	(3)	(R)	(4)	(4)	0	1	0	NI	0	1	1	N	1	S	2	1330-78-5	700	Tricresyl phosphate (containing less than 1% ortho-isomer)
1332	Tricresyl phosphate (more than 1% ortho-isomers)	5	3	3	R	4	4	0	1	0	NI	0	1	1	N	1	S	2	1330-78-5	699	Tricresyl phosphate (containing 1% or more ortho-isomer)
2530	Tricyanohexane	0	NI	0	NR	1	NI	1	0	(1)	NI	(1)	0	0		1	SD	1		4239	Tricyanohexane
1333	Tridecane	0	NI	0	NI	0	NI	0	0	(1)	NI	(1)	1	0		2	Fp	2	629-50-5	701	Tridecane
1334	Tridecanoic acid	5	NI	5	(R)	3	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	638-53-9	702	Tridecanoic acid
1768	Tridecyl acetate	5	NI	5	NI	0	NI	0	(0)	(2)	NI	(2)	2	2		2	F	2	1072-33-9	703	Tridecyl acetate
1338	Triethanolamine	0	0	0	R	1	NI	0	0	(2)	NI	(2)	1	2		1	D	2	102-71-6	704	Triethanolamine
2445	3-(Triethoxysilyl)propylamine	1	1	1	R	1	NI	1	0	(3)	NI	(3)	3B	3	Ss	2	D	3	919-30-2	3824	3-(Triethoxysilyl)propylamine
1339	Triethylamine	1	0	0	R	3	0	1	2	2	NI	2	2	3		4	D	3	121-44-8	706	Triethylamine
1340	1,3,5-Triethylbenzene	5	NI	5	NI	4	NI	0	(0)	(2)	NI	(2)	(2)	(1)		2	F	2	25340-18-5	707	Triethylbenzene
1341	Triethylene glycol	0	NI	0	R	0	0	0	0	0	NI	0	0	0		1	D	0	112-27-6	708	Triethylene glycol

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1346	Triethylenetetramine	0	NI	0	NR	3	NI	0	2	(3)	NI	(3)	3	3	Ss	1	D	3	112-24-3	709	Triethylenetetramine
2456	Triethylenetetramine/2-piperazine-1-ylethylamine mixtures	0	NI	0	NR	2	NI	0	2	(3)	NI	(3)	3	3	Ss	1	D	3			
1348	Triethyl phosphate	0	0	0	NR	1	0	1	0	0	NI	0	(2)	(2)		1	D	2	78-40-0	705	Triethyl phosphate
1349	Triethyl phosphite	0	NI	0	R	1	NI	1	0	2	NI	2	1	2	Ss	3	FE	2	122-52-1	710	Triethyl phosphite
2470	Triglycerides, C16-C18 and C18 unsaturated, reclaimed (UCO), containing less than 25% free fatty acids	(5)	(0)	(0)	R	(3)	(0)	(0)	(0)	(1)	NI	(1)	(1)	(1)		1	Fp	2	68990-65-8	4023	Used cooking oil (Triglycerides, C16-C18 and C18 unsaturated) (m) (n)
1370	Triisopropanolamine	0	0	0	NR	1	0	1	0	0	NI	0	(2)	3		1	FD	3	122-20-3	711	Triisopropanolamine
1375	Triisopropylated phenyl phosphates	5	5	5	R	4	NI	0	0	0	NI	0	0	0		1	S	0	68937-41-7	712	Triisopropylated phenyl phosphates
1350	Trimethylacetic acid	1	1	1	R	2	NI	1	1	(2)	NI	(2)	2	2		2	Fp	2	75-98-9	714	Trimethylacetic acid
1353	Trimethylamine	0	NI	0	R	1	NI	1	0	2	NI	2	3	3		4	DE	3	75-50-3	715	Trimethylamine solution (30% or less)
1354	1,2,3-Trimethyl benzene	3	3	3	NR	4	0	0	0	1	NI	1	2	1		3	FE	2	526-73-8	716	Trimethylbenzene (all isomers)
1359	2,4,4-Trimethyl hexamethylene diamine	1	NI	1	NI	NI	NI	1	0	(3)	NI	(3)	2	3	Ss	1	D	3	25620-58-0	718	Trimethylhexamethylenediamine (2,2,4- and 2,4,4-isomers)
1360	Trimethyl hexamethylene diisocyanate	0	NI	0	NI	3	NI	0	NI	NI	NI	NI	NI	NI	SsSr	1	NI	2	28679-16-5	717	Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-isomers)
1362	Trimethylol propane polyethoxylate	NI	NI	NI	NR	1	NI	0	0	NI	NI	NI	NI	NI		1	NI	NI		719	Trimethylolpropane polyethoxylate
2274	Trimethylol propane, propoxylated	0	NI	0	(NR)	1	0	0	0	(1)	NI	(1)	0	1		1	SD	1		2870	Trimethylol propane propoxylated
1845	2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	4	NI	4	NR	0	NI	0	0	(1)	NI	(1)	1	0		1	F	1		26	2,2,4-Trimethyl-1,3-pentanediol diisobutyrate
1364	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	3	NI	3	NI	2	NI	0	0	(1)	NI	(1)	1	1		1	Fp	2	25264-77-4	27	2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate
1365	Trimethyl phosphite	0	NI	0	R	NI	NI	NI	NI	NI	NI	NI	NI	NI		3	S	NI	121-45-9	713	Trimethyl phosphite
1844	1,3,5-Trioxane	0	NI	0	NI	0	NI	0	0	0	NI	0	0	1	R	3	SD	3	110-88-3	10	1,3,5-Trioxane
1372	Tripropylene glycol	0	0	0	R	0	0	0	0	(0)	NI	(0)	0	0		1	D	0	24800-44-0	720	Tripropylene glycol
1377	Trixylenyl phosphate	5	4	4	NR	4	1	(0)	(1)	(0)	NI	(0)	(1)	(1)	R	1	S	3	25155-23-1	721	Trixylyl phosphate
1378	Tung oil	0	NI	0	R	(2)	NI	(0)	(0)	(1)	NI	(1)	(0)	(1)		1	Fp	2		2784	Tung oil
1379	Turpentine (wood)	4	NI	4	NI	4	NI	0	(0)	1	NI	1	(2)	2	SsA	3	D	2	8006-64-2	722	Turpentine
1381	Undecanoic acid	4	NI	4	(R)	3	NI	(0)	(0)	(2)	NI	(2)	1	(2)		1	Fp	2	112-37-8	723	Undecanoic acid
1382	1-Undecanol	4	NI	4	R	4	NI	0	0	(2)	NI	(2)	2	(1)		1	Fp	2	112-42-5	724	Undecyl alcohol
1383	1-Undecene	5	NI	5	NR	4	NI	(0)	(0)	(1)	NI	(1)	(2)	(1)	A	2	F	3	821-95-4	24	1-Undecene
1384	Urea	0	0	0	R	1	NI	0	0	(1)	NI	(1)	1	(1)		0	D	1	57-13-6	726	Urea solution
																				2627	Urea

EHS	EHS Name	A1a	A1b	A1	A2	B1	B2	C1	C2	C3a	C3b	C3	D1	D2	D3	E1	E2	E3	CAS No	TRN	TRN Name
1386	Urea/Ammonium mono and dihydrogen phosphate/ Potassium chloride solution	0	0	0	R	3	2	NI	NI	NI	NI	NI	NI	NI		0	NI	NI		727	Urea/Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution
1387	Urea/Ammonium nitrate solution (containing < 1% aqueous ammonia)	0	NI	0	R	(2)	(0)	0	0	(1)	NI	(1)	(1)	(1)		0	D	1		729	Urea/Ammonium nitrate solution
2179	Urea-ammonium phosphate solutions	0	0	0	R	3	2	(0)	(0)	(2)	NI	(2)	(2)	(2)		0	D	2		730	Urea/Ammonium phosphate solution
1388	Urea-formaldehyde resin solution	NI	NI	NI	NI	1	NI	1	1	NI	NI	NI	NI	NI	Ss	0	NI	2		725	Urea formaldehyde resin solution
2371	Vegetable acid oils	0	NI	0	R	0	NI	(0)	(0)	(1)	NI	(1)	(1)	(1)		NI	Fp	2		3138	Vegetable acid oils (m)
2369	Vegetable oils fatty acid distillates	0	NI	0	R	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		NI	Fp	2		3137	Vegetable fatty acid distillates (m)
1398	Vegetable protein solution,hydrolyzed	0	NI	0	R	0	NI	(0)	(0)	(0)	NI	(0)	(0)	(0)		0	D	0		734	Vegetable protein solution (hydrolysed)
1400	Vinyl acetate	0	NI	0	R	2	NI	1	0	2	NI	2	1	1	C	4	ED	3	108-05-4	735	Vinyl acetate
1405	Vinyl ethyl ether	1	NI	1	NR	1	NI	0	0	0	NI	0	1	1		4	E	2	109-92-2	736	Vinyl ethyl ether
1406	Vinylidene chloride	2	1	1	NR	2	NI	2	0	(2)	NI	(2)	2	2	M	4	SD	3	75-35-4	738	Vinylidene chloride
1404	Vinyl neodecanoate	5	NI	5	NR	3	NI	0	0	(3)	NI	(3)	3	3		2	F	3	45115-34-2	737	Vinyl neodecanoate
1409	Vinyl toluenes	3	3	3	NR	3	NI	0	0	2	NI	2	2	1	MN	3	F	3	25013-15-4	739	Vinyltoluene
1411	White spirit, low (15-20%)aromatic	(4)	NI	(4)	(R)	3	NI	(0)	(0)	(2)	NI	(2)	(1)	(2)	A	4	F	3		742	White spirit, low (15-20%) aromatic
2403	Wood lignin with sodium acetate/oxalate	NI	NI	(0)	NR	(0)	NI	0	(0)	(1)	NI	(1)	(1)	(1)		0	D	1		3638	Wood lignin with sodium acetate/oxalate
1408	Xylene (mixed isomers)	3	NI	3	NR	3	0	0	0	0	NI	0	2	2		3	FE	2	133-20-7	743	Xylenes
2269	Xylenes/Ethyl benzene (10% or more) mixture	3	2	2	NR	3	1	(0)	(0)	(2)	NI	(2)	(2)	(2)		3	FE	2		2337	Xylenes/ethylbenzene (10% or more) mixture
1422	Xylenols (mixtures)	2	NI	2	R	3	NI	1	2	(3)	NI	(3)	3	3		2	Fp	3	1300-71-6	744	Xylenol
2396	Yeast Extract Solution with Propylene Glycol (25% or less)	NI	0	0	R	0	NI	0	0	(1)	NI	(1)	0	1		1	D	1	8013-01-2	3631	Stabilized Yeast Extract Solution
1977	Zinc alkaryl dithiophosphate (C7-C16) (LOA)	0	NI	0	NR	3	NI	0	0	(0)	NI	(0)	(0)	(0)		1	Fp	2		745	Zinc alkaryl dithiophosphate (C7-C16)
2053	Zinc alkenylcarboxamide (LOA)	NI	0	0	NR	0	NI	0	0	(1)	NI	(1)	1	(1)		1	Fp	2		746	Zinc alkenyl carboxamide
1428	Zinc alkyl dithiophosphate	5	NI	5	NR	3	NI	0	0	0	NI	0	2	2		1	S	2		747	Zinc alkyl dithiophosphate (C3-C14)
2227	Zinc bromide solutions	Inorg	4	4	Inorg	3	NI	1	(2)	(3)	NI	(3)	3B	3	Ss	0	D	3		2617	Zinc bromide solutions
1425	Zinc chloride	Inorg	4	4	Inorg	4	1	(1)	(1)	(3)	NI	(3)	(3)	(3)		0	D	3	7646-85-7	307	Drilling brines (containing zinc chloride)
																				2869	Zinc chloride

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ANNEX 5

PROVISIONAL AGENDA FOR THE SIXTY-SECOND 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

6 Consolidation of existing data files

7 Communication and publication

8 Any other business

9 Consideration and adoption of the report