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HAZARD EVALUATION OF SUBSTANCES TRANSPORTED BY SHIPS

Report of the forty-fourth session of the GESAMP/EHS Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships

The report of the forty-fourth session of the GESAMP/EHS Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships (EHS 44/7) is attached for information.

Any comments would be welcome and should be addressed to:

IMO Technical Secretary of the GESAMP/EHS Working Group
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REPORT OF THE FORTY-FOURTH SESSION

1 INTRODUCTION

1.1 The forty-fourth session of the GESAMP/EHS Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships was held at IMO temporary Headquarters, London, from 30 April to 4 May 2007 under the chairmanship of Dr. C.T. Bowmer. The list of members attending this session is shown in annex 1 and the approved agenda is shown in annex 2.

Matters arising from IMO

1.2 The Group was informed that this year's theme for World Maritime Day (27 September 2007), which was unanimously approved by the Council last November, is **"IMO's response to current environmental challenges**. In this regard the work of developing hazard profiles by the Group to allow carriage requirements to be set for the regulated transport of bulk Noxious Liquid Substances, as well as the scientific advice it provides to the IMO, underpins some of IMO's important efforts to find sustainable and lasting solutions to redress the negative impact of some of the human activity on the environment, thereby showing that the maritime sector is committed to continual improvement of its environmental performance.

1.3 The Group was also informed that the revised MARPOL Annex II, adopted by resolution MEPC.118(52), and the consequential amendments to the IBC Code, adopted by resolutions MEPC.119(52) and MSC.176(79) respectively, had entered into force on 1 January 2007. The Group was further informed that both instruments have been published; the revised MARPOL Annex II in the MARPOL 2006 consolidated edition and the IBC Code as a stand alone publication. The latter contains a CD with chapters 17, 18 and 19 of the Code in pdf format.

1.4 The Group noted that the twelfth intersessional meeting of the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 12) met from 4 to 8 September 2006. The Group also noted the relevant matters to its work emanating from ESPH 12, in particular: 1) the procedures related to the submission of data to the Group, and the ESPH Working Group; as well as 2) the work on the revision of the tank cleaning additives guidance note and reporting form and their evaluation. In the latter case, the Group further noted that consequential to the work on the revision of the guidance note and reporting form, it was being proposed that manufacturers of cleaning additives will submit all components without key columns of GHP (i.e. A1, A2, B1, B2, D3, E2) to the GESAMP/EHS Working Group for evaluation on an "owner pays principle".

1.5 It was also noted that the fifty-fifth session of the Marine Environment Protection Committee (MEPC) was held from 9 to 13 October 2006.

1.6 The Group recalled that MEPC 54 (March 2006) had agreed to use the 2007 budgetary allocation to fund a second session of GESAMP/EHS in 2006 and, consequently, the forty-third session of the GESAMP/EHS Working Group had been held in June 2006 at IMO Headquarters.

1.7 The Group noted that the Government of Venezuela had made a generous offer of US\$50,000 at the ninety-sixth session of the Council in June 2006 for convening the regular forty-fourth session of GESAMP/EHS in 2007, which solved the short-term funding issues to cover the costs of the Group's forty-third session. Following extensive deliberations, MEPC 55, in October 2006, instructed the IMO Secretariat to develop a long-term funding proposal for the work of GESAMP/EHS based on the principle of an "owner pays principle". In this regard, the Secretariat was requested to forward these proposals to BLG 11 for review by the ESPH Working Group and their finalization, for subsequent consideration by MEPC 56.

1.8 The Group noted that the Sub-Committee on Bulk Liquids and Gases held its eleventh session from 16 to 20 April 2007, during which time the ESPH Working Group was able to meet for two days. It was further noted that among the issues considered by the Sub-Committee of relevance to the work of the Group were: 1) the finalization of the draft tank cleaning additives guidance note and reporting form, which will be submitted for approval at MEPC 56; and 2) the two proposed options for implementing a scheme for long-term funding of the Group, which will need further consideration by MEPC 56.

Activities of GESAMP

1.9 The Group noted the update given on the GESAMP activities in 2006 confirming the revitalization of GESAMP after a long period of re-orientation and review and after it had received substantial support (US\$1,100,000) from the Swedish International Development Co-operation Agency (SIDA) for the period 2006 to 2008, on the condition that GESAMP:

- .1 rebuilds and strengthens its network and structure;
- .2 involves scientific experts from developing countries in its activities; and
- .3 plays a role in and supports the 'UN Regular Process for global reporting and assessment of the state of the marine environment, including socio-economic aspects', aiming at fostering regional and local ownership of this 'Regular Process'.

1.10 The Group also noted that the Swedish Maritime Administration had seconded a Junior Professional Officer, Mr. Fredrick Haag, to IMO from 20 November 2006 to assist with the co-ordination of GESAMP activities for a two-year period.

1.11 In this regard the Group further noted that the thirty-fourth session of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) will be held at the UNESCO Headquarters in Paris, France from 8 to 11 May 2007.

2 EVALUATION OF NEW PRODUCTS PROPOSED FOR BULK TRANSPORT BY SHIPS

2.1 The Group considered the following new substances which had been submitted for evaluation by industry and Governments:

- .1 Alkenoic acid ester borated;
- .2 Alkyl (C18+) toluenes;
- .3 Alkyltoluenesulfonic acid, calcium salts;
- .4 Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols, branched and linear;
- .5 Calcium alkylsalicylate (C10-C15);
- .6 Calcium long-chain alkyl phenate sulphide/calcium stearate/branched alkylphenol/calcium branched alkyl phenol mixture (in mineral oil);
- .7 Calcium long-chain branched alkylsalicylate (C18-C28);
- .8 Diakyl dithiophosphate sodium salt solution;
- .9 Diethylene glycol initiated polyoxypropylene diamine;
- .10 Alcohols, linear (C10-C14);
- .11 Alcohols, linear (C12+);
- .12 Alcohols, linear (C16+);
- .13 Formaldehyde polymer with isobutylenated phenols;
- .14 Alkyl (C12-C16) propoxyamine ethoxylate;
- .15 Orange juice and concentrates;
- .16 Polyalkyl alkeneamine succinimide, molybdenum oxysulphide; and
- .17 Polyolefin amide alkeneamine polyol.

2.2 The resultant hazard profiles for these products are set out in annex 3.

2.3 The Group noted that the majority of products submitted at this session were identified by trade names. As indicated in its Reports and Studies No.64, the Group reiterated that to allow clear identification, the Group assigns an appropriate chemical name. Furthermore, it recalled that IMO does not permit products to be listed under trade names in the IBC Code. To facilitate the process, where possible the Group has proposed chemical names for these trade names and requested the Technical Secretary to bring this to the attention of the relevant manufacturers. Thus, the list of products in paragraph 3.1 above does not include the original trade names as submitted but chemical names as proposed by the Group, which need to be considered by the relevant manufacturer for eventual inclusion in the IBC Code.

2.4 The Group noted that some of the products submitted for evaluation belonged to the group of substances not shipped in pure form but as components in mixtures, and following evaluation by the Group and consideration by IMO will be listed in annex 5 – List 5 of the MEPC.2/Circular. In this regard, the Group recalled that IMO had agreed that for regulatory purposes a shortened hazard profile is acceptable from which the ship type could be determined and, consequently, it was only necessary to provide data for ratings in columns A1, A2, B1, B2, D3, and E2 to the Group. However, the Group noted that, in the future, if manufacturers want to ship these products in pure form, it will be to their advantage to have a complete profile, in which case additional information to assign ratings in the other columns would be required. The Group also noted that, notwithstanding that a manufacturer would not be expected to undertake testing for the long-term health effects under column D3, any existing reports would be desirable and, where available, should be provided.

2.5 In considering the various products, the Group made the following observations:

- .1 Alkyl toluenes – the chemical name should be qualified by a carbon chain length and the Group agreed to add (C18+) to the chemical name; the Group noted that the manufacturer had also sent the European Risk Assessment for Benzene (C10-C13) alkyl derivatives to be used for analogy purposes, as appropriate;
- .2 Calcium alkyl salicylate – this product was first considered for evaluation by the Group in the mid-eighties but was not included in the review of the hazard profiles under the revision exercise of the IBC Code. It had now been re-submitted for evaluation by a different manufacturer. The Group noted that the proposed name was “Calcium branched and linear alkyl salicylate”, which in the absence of a specified “branched” or “linear” name tag infers the possible presence of either, and subject to agreement by the manufacturer, the Group proposed “Calcium alkyl salicylate” as a possible shipping name;
- .3 Orange juice and concentrates - the Group agreed to introduce two separate entries; “Orange juice (not concentrated)” and “Orange juice (concentrated)”, even though the hazard profile for both substances was identical;
- .4 Alkenoic acid ester borated, while accepting the chemical name, the Group noted that it was generic in nature and a less open-ended name which still retains some confidentiality may need to be considered by IMO;
- .5 Formaldehyde, polymer with isobutylenated phenols – the Group noted that this substance was one of those which was submitted as a component in mixtures and not shipped in pure form. Based on the information provided, the Group were only able to assign ratings to columns A2 and E2 and data for the other key columns A1, B1, B2 and D3 (if available) was still required. In this regard, the Group agreed that essential data such as the chemical structure, CAS No., molecular weight and acute toxicity reports should be provided as a minimum;
- .6 Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy C7-C9 alcohols branched and linear – the Group agreed to retain this chemical name in preference to the requested name from the manufacturer “C7-C9 ester of substituted aryl acid” as the latter was considered to be too generic.
- .7 For the following two substances, column E2 was evaluated with reference to the main component in mineral oil and not the pure substances:
 - .1 Calcium long-chain alkyl phenate sulphide/calcium stearate/branched alkyl phenol/calcium branched alkyl phenol mixture (in mineral oil); and
 - .2 Calcium long-chain alkyl salicylate (C18-C28);

Calcium long-chain alkyl phenate sulphide/calcium stearate/branched alkyl phenol/calcium branched alkyl phenol mixture (in mineral oil) – the Group noted that this substance corresponds to the entry “Calcium long-chain alkyl phenate sulphide (C8-C40)” in the GESAMP/EHS Composite List as well as an entry in the IBC Code. On the basis of the information provided, the Group made changes to the following columns of its GESAMP hazard profile:

Column	Previous rating	EHS 44
B1	0	1
C3	(2)	(1)
D1	(2)	1
D2	(2)	1
D3	S	Blank
E3	3	2

Calcium long-chain alkyl salicylate (C18-C28) – the Group noted that a similar substance exists in its GESAMP hazard profile Composite List but with a different chain length, i.e. (C13+). Because the chain length can contribute to different hazard properties, it was agreed to introduce a similar substance qualified by the chain length (C18-C28);

- .8 Alcohols, linear (C10-C14), linear (C12+) and linear (C16+) – the Group recalled its earlier work on consolidated vegetable oils and their derivatives, carried out at EHS 43. The Group further recalled that with regard to alcohols, due to time constraints, it had agreed to complete the work at EHS 44. In this regard, the Group noted that a number of entries for alcohols have been developed in the GESAMP/EHS Composite List and consequentially have been introduced in the IBC Code, namely:

- .1 Alcohols (C13+);
- .2 Alcohols (C8-C11), primary, linear and essentially linear;
- .3 Alcohols (C12-C13), primary linear and essentially linear; and
- .4 Alcohols (C14-C18), primary linear and essentially linear.

Whilst noting that the three alcohols originally submitted contained the descriptor “Fatty” to denote their origin from vegetable oils, the Group agreed to delete this descriptor from the chemical name. The Group evaluated these alcohols by analogy to existing entries as follows:

- .1 Alcohols, linear (C10-C14) by analogy to Alcohols (C12-C13) primary, linear and essentially linear;
- .2 Alcohols linear (C12+) by analogy to Alcohols (C12-C13) primary, linear and essentially linear; and
- .3 Alcohols linear (C16+) by analogy to Alcohols (C14-C18) primary, linear and essentially linear.

3 CORRESPONDENCE WITH THE INDUSTRY AND CONSIDERATION OF QUERIES FROM INDUSTRY RELATED TO EVALUATIONS

3.1 The Group noted that additional information on the following products had been received from industry with a request that it be taken into account when evaluating the products. The results of this exercise are set out at annex 4.

Acrylic acid

3.2 The Group noted that the values for oral toxicity it had used previously for evaluation are confirmed by the risk assessment report - cited values of <300 mg/kg LD50, which are considered to be reliable. The rating of "2" in column C1 was retained.

Butyl acrylate

3.3 The Group noted that the IBC Code entry for butyl acrylate includes "all isomers" and, as a grouped entry, combines the worse case ratings for n-, iso-, or other isomers. The Group agreed that the profile would therefore remain unchanged.

Calcium carbonate slurry

3.4 Based on recent test data, the Group noted that the substance showed no skin irritation and slight eye irritation properties and subsequently assigned a rating of "0" and "1" for columns D1 and D2 respectively. Consequently, column C3 was assigned a rating of "(1)".

Coal tar pitch (molten)

3.5 The Group was requested by industry to review the ratings in columns B1 and B2 (acute and chronic aquatic toxicity) and recalled that it had reviewed this product at EHS 42 and EHS 43 respectively. The Group noted that this product was comprised of a mixture of polyaromatic hydrocarbons and is solid at ambient temperature. When carried in bulk by ships, it is heated to ca. 140°C to maintain the product in liquid form and to facilitate unloading.

3.6 The Group also recalled that the existing ratings are based on two sets of information: a) ecotoxicity studies on fish, daphnia and algae carried out in Japan, in which a solvent was used to solubilise the material; and b) the intrinsic toxicities of the individual PAH components, in particular two to four benzene ring PAHs. The Group recognized that neither approach gives a satisfactory assessment of aquatic toxicity, as a realistic exposure to the test material is lacking. However, the Group also recognized that this is the only ecotoxicity information on file and has therefore been used to provide a rating.

3.7 The Group noted that industry has recently generated further data in an attempt to assess the actual concentrations of PAH entering the water on contact with: a) the product in powdered form; and b) the molten pitch as it might enter the water following a spill. In the former case, using a generator column with powdered pitch concentrations of 12 to 36 ug/L were achieved; and in the latter case, concentrations of 77 and 91 ug/L were measured respectively at 15 minutes and 24 hour intervals after introducing ca. 1.5 kg of molten pitch at 220°C into 35 litres of water at ca. 22°C. In both scenarios, a standard set of 16 PAH compounds was measured. The Group noted that the background PAH levels in the water appeared high in the experiment with the molten pitch.

3.8 The Group agreed that the manufacturer's contention that the individual PAH constituents in no case exceed acute or chronic test data from the literature is not considered sufficient evidence of lack of toxicity, as coal tar pitch may vary considerably depending on the source and the combined PAH concentration of the resultant mixture would be important in determining acute aquatic toxicity.

3.9 The Group considered that the manner in which the test organism would be exposed to the test substance would in this case be important in determining the hazard through ecotoxicity testing. It, therefore, felt that the use of molten pitch, at a representative transport temperature, to create test media in water was the most relevant. Should the manufacturer wish to generate acute aquatic data using this as a method of preparing exposure media, then the Group felt that this might provide more convincing evidence of the actual hazard. The same would apply to the generation of chronic data under column B2. In so doing, attention should be paid to the lower molecular weight fractions such as naphthalene.

Coconut oil fatty acids (COFA)

3.10 Based on the observation by industry on the apparent inconsistency in ratings in column B1 of “(0)” and “(3)” for Coconut oil fatty acids and Palm kernel acid oil respectively, both IBC Code entries, the Group adjusted the rating in column B1 for COFA to “(3)”, which is consistent with the fact that the shorter chain fatty acids are relatively more toxic to the aquatic environment than the longer chain fatty acids.

Di(2-ethylhexyl) phthalate (DEHP)

3.11 The Group reviewed the existing data for this substance and agreed to amend the ratings for columns A1 and A2 to “4” and “NR” respectively. With regard to the “NR” rating for column A2, the Group noted that “when sewage treatment plants are considered, DEHP should be regarded as readily biodegradable while in marine environments, in which acclimatization of the micro-organisms is not likely, it should, therefore, be regarded as ‘not readily biodegradable’”.

Ethyl acrylate

3.12 The Group noted that it had based its rating for column D3 on the WHO IARC classification as Group IIB, i.e. a possible human carcinogen on the basis of animal experimental data. The Group agreed to retain the rating of “C” in column D3.

Glycerol ethoxylated

3.13 The Group revisited the information for the substance and consequently the hazard profile it had developed at EHS 42 and EHS 43. The Group agreed to amend the ratings in columns: A2 from “(NR)” to “R”, C3 from “(1)” to “(0)” and D2 from “1” to “0”.

Ethoxylated tallowamine

3.14 The Group recalled the extensive review it had carried out at EHS 41 of the information it had received from various industry sources over time on ethoxylated tallowamine containing various concentrations of glycol.

3.15 Based on new information received at this session, the Group agreed to reconsider their earlier decision of having only one entry, i.e. Ethoxylated tallowamine, glycol mixture and developed a new entry Ethoxylated tallowamine (>95%).

3.16 Data used for the evaluation of aquatic hazards indicated that although the calculated log Pow was in the range of 5.89 to 6.6, the product was a surfactant. The substance was also noted not to be readily biodegradable and was highly toxic with WAF loading rates of 0.28 mg/l and 0.84mg/l.

3.17 The Group also noted that with regard to human toxicity, the substance was severely corrosive to the eye and irritating to the skin. The Group, whilst noting the absence of data for dermal toxicity, agreed to assign a rating of “(1)” to column C2 on the basis that dermal toxicity could not be more severe than oral toxicity, which had a rating of “1” in column C1. The Group was of the view that such a decision was not only scientifically sound but also prevented unnecessary animal testing, and agreed to use this principle in future evaluations, as appropriate.

Polyoxypropylene diamine

3.18 The Group noted that this substance’s chemical name was agreed to by a manufacturer as the proper shipping for a Trade name product. Based on the information provided, the Group was able to complete its hazard profile.

Methyl acrylate

3.19 The Group agreed with the weight of evidence approach proposed by the manufacturer and accepted an adjusted rating of “1” in Column C1 for acute oral toxicity.

3.20 For skin irritation, the test report showed superficial necrosis in one animal only, with all other animals showing irritation; this was accepted as a rating of “2” instead of “3” in column D1.

3.21 The manufacturer requested the removal of the “M” rating (mutagenicity) on the grounds that the in-vivo genotoxicity studies would overrule the in-vitro test data. The Group felt that one positive in-vivo micro-nucleus assay by intra-peritoneal application was taken as more reliable and the “M” rating was retained.

Palm kernel fatty acid distillate

3.22 The Group recalled the decision of the ESPH Working Group at BLG 11 on the provisional ratings assigned to columns E2 and E3 (paragraph 3.2.1 of document BLG 11/WP.3), pending formal agreement by the GESAMP/EHS Working Group. The Group agreed to a rating of “Fp” and “2” in columns E2 and E3 respectively, in line with the same ratings assigned by analogy to other vegetable oil distillates.

Palm kernel oil fatty acids

3.23 The Group recalled its earlier decision at EHS 43 that the substance, Palm kernel oil fatty acid could be covered by the entry Fatty acids (C8-C10). In this regard, the query on the rating for column B1 by industry was not considered relevant.

Polytetrahydrofuran

3.24 The Group noted that a manufacturer had sent in a copy of a report on biodegradation for this substance. The Group also noted that its chemical structure is unclear from the documentation provided by the manufacturer. The Group further noted that there is no entry under this name in either the GESAMP Composite List or the IBC Code and agreed not to include it in the GESAMP Composite List until a proposal to this effect was received.

Tall oil fatty acids

3.25 In response to a query by a manufacturer who questioned the assignment of the rating in column C3, the Group noted that the original data supplied by the manufacturer gave an estimated value of >50 mg/l for inhalation toxicity with no details of its estimation. In the absence of measured data, the Group reiterated that it applies its own rationale (annex 3 in document EHS 41/9) and also noted that it is important that for the sake of consistency throughout the GESAMP Composite List, these rules are applied where an estimate is the only way to assign a rating.

Tall oil, distilled

3.26 The Group considered that no new data were provided to justify a change in ratings.

Tert-Dodecanethiol

3.27 Based on new information, the Group assigned a rating of “2” in column B2 and confirmed the rating of “4” in column B1.

4 MISSING RATINGS

4.1 A number of substances were checked for missing data and, where possible, ratings were completed as appropriate. The results of this exercise are included in annex 4, whilst the table below lists those substances which were reviewed. In addition, some of the chemical files were reviewed for the supporting evidence to justify the ratings already assigned. In the process, the Group identified work that needed to be carried out at future sessions, in particular a review of column D3 for the phthalates chemical group as well as the assignment of “R” or “NR” to the “Inorg” ratings as appropriate, based on its decision at EHS 43.

Product name	Column	Rating changed to:
Alkylaryl phosphate mixtures (more than 40% diphenyl tolyl phosphate, less than 0.2% ortho isomers)	C3	(0)
	D1	1
	D2	0
	E3	1
Alkyl (C5-C8) benzenes	A2	(NR)
2-Amino-2 methyl propan-1-ol	C3	(3)
	D1	3
	D2	3
	E3	3
Palm oil fatty acid methyl ester	C1	0
	C2	0
	C3	0
	D2	1
1,3 pentadiene	A2	NR

5 ANY OTHER BUSINESS

Communication of the application of the revised GESAMP hazard evaluation procedure to potential user groups

5.1 The Group discussed two possibilities for communicating the application of the revised GESAMP hazard evaluation procedure to potential user groups:

- a) it was suggested that the Group prepare a scientific paper on the novel aspects of the revised GESAMP hazard evaluation procedure, and among other topics discussed were: the application of the category approach (grouping and read-across) in hazard evaluation; the use of the inhalation toxicity estimation method developed by the Group and applied to fill in missing Column C3 data; the use of physico-chemical properties to assess the hazard of floating, persistent slick forming and sinking substances; and the application of the GHS based criteria in the hazard evaluation process. A number of journal types which might be suitable were suggested, in particular those with on-line abstract capabilities which would reach the desired audience in the chemical safety community;
- b) a second suggestion considered was that the Group would provide guidelines specifically for chemical manufacturers, which would be aimed at assisting them prepare submissions to GESAMP/EHS. It was felt that this might help improve the general quality of submissions to the Group.

5.2 Both proposals received support within the Group and the Chairman was asked to prepare a contents page for both.

Submission of data to the GESAMP/EHS Working Group and IMO

5.3 The Group, once again, drew the attention of industry to the procedure following submission of a new product to the GESAMP/EHS Working Group. The submission of data to the GESAMP/EHS Working Group is the first step in the classification of a product under the IBC Code and once the product has a complete profile, it should be submitted to the IMO for the assignment of pollution category, ship type and carriage requirements under the IBC Code. Manufacturers should contact their national Administration or the appropriate non-governmental organizations in consultative status with IMO for guidance if they are not familiar with the process. More information on the process can be found at <http://www.imo.org>: click on *marine environment*: click on *chemical reporting forms*.

Change of membership and expression of appreciation

5.4 The Group welcomed Dr. Hotaka Saito, Japan who replaced Professor Meiko Wakabayashi, Japan.

5.5 The Group was also informed that Mr. F. Pedersen, Denmark and Dr. M. Marchand, France had informed the Secretariat that they wished to resign from the Group due to other professional commitments that would not allow them the time to continue their work with the Group. The Group expressed its gratitude for their untiring efforts, dedication and contribution to the work of the Group. In this regard, the Group had a preliminary exchange of view on how to strengthen the expertise within the Group and agreed that identifying experts in the field of aquatic environmental fate/biodegradation should be given a priority.

6 FUTURE WORK PROGRAMME AND DATE OF THE NEXT SESSION

6.1 The Group agreed to a draft work programme for its next session which is set out in annex 5.

6.2 The Group agreed that the next regular meeting would be tentatively held from 21 to 25 April 2008.

6.3 Submissions for this session should reach the *Technical Secretary of the GESAMP/EHS Working Group not later than 17 March 2008.

7 CONSIDERATION AND ADOPTION OF THE REPORT

7.1 The Group adopted the report and, having thanked members for the considerable amount of effort, including extensive preparatory work, *inter alia*, the collection, collation and evaluation of data to generate the *Revised Hazard Profiles*, the Chairman closed the session on Friday, 4 May 2007 at 17:00 hrs.

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ANNEX 1

**LIST OF MEMBERS ATTENDING THE FORTY-FOURTH SESSION
OF THE GESAMP/EHS WORKING GROUP**

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ANNEX 2

**AGENDA FOR THE FORTY-FOURTH SESSION OF THE
GESAMP/EHS WORKING GROUP**

- 1 Adoption of the agenda
 - Matters arising from IMO and other Organizations relevant to the activities of the Working Group
- 2 Evaluation of new products proposed for bulk transport by ships
- 3 Correspondence with the industry and consideration of queries from industry related to evaluations
- 4 Missing ratings
- 5 Any other business
- 6 Future work programme and date of the next session
- 7 Consideration and adoption of the report

NEW SUBSTANCES SUBMITTED FOR EVALUATION

GESAMP Hazard Profiles

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alcohols linear (C10-C14)	2365 3128	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(2)	(2)	(2)		NI	Fp	2
		RTECS No					CAS No:									
Alcohols, linear (C12+)	2326 3081	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(1)	1	1		NI	Fp	2
		RTECS No					CAS No:									
Alcohols, linear (C16+)	2327 3082	(5)	(2)	(2)	(R)	(0)	(1)	0	0	(1)	1	1		NI	Fp	2
		RTECS No					CAS No:									
Alkenoic acid ester, borated	2376 3153	5	(3)	(3)	R	2	NI	0	0	(2)	2	0		NI	Fp	2
		RTECS No					CAS No:									
Alkyl(C12-C16) propoxyamine ethoxylate	2380 3423	3	0	0	NR	4	NI	1	(1)	(3)	3	(3)	S	NI	D	3
		RTECS No					CAS No:									
Alkyl toluene sulphonic acid, calcium salts	2373 3149	0	NI	0	NR	0	NI	0	0	(3)	3	1	S	NI	S	3
		RTECS No					CAS No:					722503-69-7				
Alky (C18+) toluene	2374 3148	0	2	2	NR	0	NI	0	(0)	(1)	0	1		NI	Fp	2
		RTECS No					CAS No:									
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear	2378 3405	0	3	3	NR	3	0	0	0	(0)	0	0		NI	Fp	2
		RTECS No					CAS No:					125643-61-0				
Calcium alkylsalicylate	2015 3152	3	NI	3	NR	2	NI	0	0	(2)	2	2		NI	Fp	2
		RTECS No					CAS No:									
Calcium long-chain alkyl (C18-C28) salicylate	2383 3426	0	NI	0	NR	0	NI	0	0	(1)	1	0	S	NI	Fp	3
		RTECS No					CAS No:									
Dialkyl thiophosphates sodium salts solution	2381 3424	1	0	1	NR	2	NI	0	0	(2)	2	2		NI	D	2
		RTECS No					CAS No:									
Diethylene glycol initiated poloxypropylene diamine	2353 3113	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI		NI	D	NI
		RTECS No					CAS No:					194673-87-5				

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Formaldehyde, polymer with isobutylenated phenol.	2377 1203	NI	NI	NI	NR	NI	NI	NI	NI	NI	NI	NI	NI	NI	Fp	NI	
		RTECS No						CAS No:						68610-07-1			
Orange juice (concentrated)	2375 3151	0	0	0	R	0	0	0	0	(0)	0	0		NI	D	0	
		RTECS No						CAS No:									
Orange juice (not concentrated)	2382 3425	0	0	0	R	0	0	0	0	(0)	0	0		NI	D	0	
		RTECS No						CAS No:									
Polyalkyl alkenamide succinimide molybdenum oxysulphide	2379 3422	NI	0	0	NR	0	NI	0	0	(0)	0	0		NI	Fp	2	
		RTECS No						CAS No:						186432-61-1			
Polyolefin amide alkeneamine polyol	1989 602	0	NI	0	NR	0	NI	0	0	(0)	0	0	S	NI	Fp	3	
		RTECS No						CAS No:									
Polyoxypropylene diamine	2352 3112	1	NI	1	NR	1	NI	0	0	(3)	3	3		NI	D	3	
		RTECS No						CAS No:									

GESAMP/EHS COMPOSITE LIST

GESAMP Hazard Profiles

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Acetic acid	13	0	0	0	R	1	NI	1	1	1	3C	3		NI	D	3
	64	RTECS No			AF1225000			CAS No:			64-19-7					
Acetic anhydride	12	0	0	0	R	1	NI	1	0	2	3	3	A	NI	D	3
	65	RTECS No			AK1925000			CAS No:			108-24-7					
Acetochlor	2047	3	2	2	NR	4	NI	1	0	(1)	0	0		NI	S	2
	66	RTECS No			AB5457000			CAS No:			34256-82-1					
Acetone	15	0	0	0	R	0	0	0	0	0	1	2		NT	DE	2
	67	RTECS No			AL3150000			CAS No:			67-64-1					
Acetone cyanohydrin	14	0	0	0	R	4	NI	3	4	3	(3)	(3)		NI	D	3
	68	RTECS No			OD9275000			CAS No:			75-86-5					
Acetonitrile	16	0	0	0	R	1	NI	1	1	2	1	2		NI	D	2
	69	RTECS No			AL7700000			CAS No:			75-05-8					
Acetonitrile (Low purity grade)	2333	0	NI	0	R	3	NI	1	1	2	1	2		NI	D	2
	2876	RTECS No						CAS No:								
Acid oil mixture from soyabean, corn (maize) and sunflower oil refining	2306	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	(1)	1		NI	Fp	2
	3036	RTECS No						CAS No:								
Acrylamide solution (50% or less)	23	0	0	0	R	2	0	2	2	(2)	1	2	CMNS	NI	D	3
	70	RTECS No			AS3325000			CAS No:			79-06-1					
Acrylic acid	24	0	0	0	R	4	NI	2	2	2	3C	3		NI	D	3
	71	RTECS No			AS4375000			CAS No:			79-10-7					
Acrylonitrile	25	0	2	2	NR	3	0	2	2	2	2	2	CSM	NT	DE	3
	72	RTECS No			AT5250000			CAS No:			107-13-1					
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	1432	NI	0	0	NI	1	NI	0	(0)	(0)	0	(0)		NI	S	0
	73	RTECS No						CAS No:			9003-54-7					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Adiponitrile	26	0	0	0	R	1	NI	3	(3)	3	3	(3)		NI	FD	3
	74	RTECS No			AV2625000			CAS No:			111-69-3					
Alachlor technical (90% or more)	1488	3	3	3	NI	4	1	1	0	(2)	1	0	CS	NI	S	3
	75	RTECS No			AE1225000			CAS No:			15972-60-8					
Alcoholic beverages, n.o.s.	293	0	0	0	R	0	0	0	0	0	0	1		NI	D	1
	85	RTECS No			CAS No:											
Alcohol (C9-C11) poly (2.5-9) ethoxylate	2094	3	3	3	R	3	NI	1	0	(2)	(2)	(2)		NI	D	2
	2209	RTECS No			CAS No:											
Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates	722	4	3	3	R	4	2	0	(0)	(3)	3	2		NI	D	3
	81	RTECS No			CAS No:											
Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates	295	3	3	3	R	4	1	1	0	(3)	3	3		NI	D	3
	80	RTECS No			CAS No:											
Alcohol (C12-C16) poly(1-6)ethoxylates	294	5	3	3	R	4	1	0	0	(2)	2	2		NI	FD	2
	77	RTECS No			CAS No:			68131-39-5								
Alcohol (C12-C16) poly(20+)ethoxylates	1482	4	(3)	(3)	R	2	0	(0)	(0)	(2)	2	1		NI	D	2
	78	RTECS No			CAS No:											
Alcohol (C12-C16) poly(7-19)ethoxylates	1481	4	3	3	R	4	1	1	0	(3)	3	3		NI	D	3
	79	RTECS No			CAS No:											
Alcohols (C13+)	2039	5	2	2	R	4	1	0	0	0	(1)	(1)		NI	Fp	2
	86	RTECS No			CAS No:			90604-31-2								
Alcohols linear (C10-C14)	2365	(5)	(2)	(2)	(R	(4)	(1)	0	0	(2)	(2)	(2)		NI	Fp	2
	3128	RTECS No			CAS No:											
Alcohols, linear (C12+)	2326	(5)	(2)	(2)	(R	(4)	(1)	0	0	(1)	1	1		NI	Fp	2
	3081	RTECS No			CAS No:											
Alcohols, linear (C16+)	2327	(5)	(2)	(2)	(R	(0)	(1)	0	0	(1)	1	1		NI	Fp	2
	3082	RTECS No			CAS No:											

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alcohols (C8-C11), primary, linear and essentially linear	2279	5	2	2	(R)	(3)	(1)	(0)	(0)	(2)	(2)	(2)		NI	Fp	2
	2887	RTECS No						CAS No:								
Alcohols (C12-C13), primary, linear and essentially linear	2294	5	2	2	R	4	(1)	0	0	(1)	1	1		NI	Fp	2
	2950	RTECS No						CAS No:								
Alcohols (C14-C18), primary, linear and essentially linear	2293	5	2	2	R	0	1	0	0	(1)	1	1		NI	Fp	2
	2951	RTECS No						CAS No:			67762-30-5					
Alkanes (C6-C9)	2202	(5)	NI	(5)	(R)	(4)	NI	(0)	(0)	(1)	(2)	(2)	N	NI	FE	2
	88	RTECS No						CAS No:								
n-Alkanes (C10+)	296	(5)	NI	(5)	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(0)	A	NI	F	3
	471	RTECS No						CAS No:								
Alkaryl polyethers (C9-C20)	1974	4	NI	4	NR	3	NI	0	0	(3)	2	3		NI	S	2
	90	RTECS No						CAS No:			26027-38-3					
Alkenoic acid ester, borated	2376	5	(3)	(3)	R	2	NI	0	0	(2)	2	0		NI	Fp	2
	3153	RTECS No						CAS No:								
Alkenyl (C11+) amide	1858	3	NI	3	(NR)	4	NI	0	(0)	(1)	0	1		NI	Fp	2
	838	RTECS No						CAS No:								
Alkenyl (C16-C20) succinic anhydride	298	0	0	0	NR	1	NI	0	0	(2)	2	(2)	S	NI	FD	2
	2336	RTECS No						CAS No:								
Alkyl acrylate-vinylpyridine copolymer in toluene	299	2	2	2	R	2	0	0	0	(2)	2	2	RNA	NI	F/Fp	3
	94	RTECS No						CAS No:								
Alkyl(C8+)amine, Alkenyl (C12+) acid ester mixture	1433	NI	NI	NI	NI	1	NI	(0)	(0)	NI	NI	NI	S	NI	Fp	3
	98	RTECS No						CAS No:								
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	2267	4	4	4	R	4	4	0	0	(0)	1	0		NI	S	1
	280	RTECS No						CAS No:			26444-49-5					
Alkylated (C4-C9) hindered phenols	2273	0	2	0	NR	1	0	1	0	(2)	1	1		NI	Fp	2
	2575	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)	1872 103	0	4	4	NR	0	NI	0	0	0	0	2		NI	FE	2
		RTECS No						CAS No:								
Alkyl benzene distillation bottoms	300 3106	0	2	2	NR	0	(3)	0	0	1	1	1		NI	Fp	2
		RTECS No						CAS No:								
Alkylbenzene mixtures (containing at least 50% of toluene)	2303 2909	(2)	(2)	(2)	(R)	(3)	(0)	0	0	(2)	2	2	ACMNR	NI	FE	3
		RTECS No						CAS No:			68527-23-1					
Alkyl (C3-C4) benzenes	2206 91	(3)	NI	(3)	R	4	NI	0	0	(2)	(2)	(1)		NI	FE	2
		RTECS No						CAS No:								
Alkyl (C5-C8) benzenes	2207 92	5	4	4	(NR)	4	NI	0	0	(2)	(2)	(1)		NI	F	2
		RTECS No						CAS No:								
Alkyl(C9+)benzenes	1783 100	0	4	4	NR	1	NI	0	(0)	(1)	(1)	(1)		NI	F	1
		RTECS No						CAS No:								
Alkyl (C11-C17) benzene sulphonic acid	1739 101	NI	NI	3	R	3	1	1	(1)	(2)	(1)	(1)		NI	D	2
		RTECS No						CAS No:			27176-87-0					
Alkylbenzene sulphonic acid, sodium salt solution	301 102	3	3	3	R	3	1	1	(1)	(3)	2	3		NI	FD	3
		RTECS No			DB4370000			CAS No:			42615-29-2					
Alkyl (C12+) dimethylamine	2248 2485	3	NI	3	R	5	2	1	(1)	(3)	3C	3		NI	F	3
		RTECS No						CAS No:								
Alkyl dithiocarbamate (C19-C35)	2236 2538	0	NI	0	NI	1	NI	0	0	(0)	0	0		NI	S	0
		RTECS No						CAS No:								
Alkyldithiothiadiazole (C6-C24)	1981 104	5	NI	5	NR	1	NI	0	0	(0)	0	0		NI	S	2
		RTECS No						CAS No:								
Alkyl ester copolymer (C4-C20)	1986 2202	NI	0	0	NR	0	NI	0	0	(0)	0	0		NI	Fp	2
		RTECS No						CAS No:								
Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)	2134 2248	3	NI	3	R	3	0	0	0	(3)	2	3		NI	D	3
		RTECS No						CAS No:			141464-42-8					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)	2135 2246	3	NI	3	R	2	0	0	0	(2)	2	2		NI	D	2
			RTECS No					CAS No:								141464-42-8
Alkyl (C7-C9) nitrates	8 93	4	NI	4	NR	4	NI	0	0	(3)	2	(3)	S	NI	F	3
			RTECS No					CAS No:								27247-96-7
Alkyl(C7-C11)phenol poly(4-12) ethoxylate	1063 97	4	NI	4	NR	3	1	0	0	(2)	2	1		NI	D	2
			RTECS No					CAS No:								
Alkyl (C8-C40) phenol sulphide	1985 2253	0	NI	0	NR	0	NI	0	0	(1)	1	1		NI	FD	1
			RTECS No					CAS No:								
Alkyl (C8-C9) phenylamine in aromatic solvents	2096 2200	2	NI	2	NR	3	NI	(0)	(0)	(2)	2	2		NI	S	2
			RTECS No					CAS No:								
Alkyl (C9-C15) phenyl propoxylate	2188 2430	0	NI	0	NR	0	NI	0	0	(2)	2	2		NI	FD	2
			RTECS No					CAS No:								
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	2133 2247	3	NI	3	R	2	0	0	0	(3)	2	(3)		NI	D	3
			RTECS No					CAS No:								
Alkyl (C12-C14) polyglucoside solution (55% or less)	2137 2249	3	NI	3	R	3	0	0	0	(3)	2	3		NI	D	3
			RTECS No					CAS No:								110615-47-9
Alkyl (C8-C10) polyglucoside solution (65% or less).	2136 2245	1	NI	1	R	2	0	0	0	(2)	2	2		NI	D	2
			RTECS No					CAS No:								68515-73-1
Alkyl(C12-C16) propoxyamine ethoxylate	2380 3423	3	0	0	NR	4	NI	1	(1)	(3)	3	(3)	S	NI	D	3
			RTECS No					CAS No:								
Alkyl(C10-C20, saturated and unsaturated) phosphite	2108 96	0	NI	0	R	1	NI	0	0	(0)	0	0		NI	Fp	2
			RTECS No					CAS No:								
Alkyl sulphonic acid ester of phenol	1878 1701	5	NI	5	NR	0	NI	0	(0)	(0)	0	0		NI	S	0
			RTECS No					CAS No:								91082-17-6
Alkyl toluene sulphonic acid, calcium salts	2373 3149	0	NI	0	NR	0	NI	0	0	(3)	3	1	S	NI	S	3
			RTECS No					CAS No:								722503-69-7

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alky (C18+) toluene	2374	0	2	2	NR	0	NI	0	(0)	(1)	0	1		NI	Fp	2
	3148	RTECS No					CAS No:									
Allyl alcohol	28	0	0	0	R	4	NI	2	3	4	2	3	A	NI	D	3
	105	RTECS No BA5075000					CAS No:					107-18-6				
Allyl chloride	478	1	1	1	R	3	NI	1	0	2	1	3	T	NI	E	3
	106	RTECS No UC7350000					CAS No:					107-05-1				
Aluminium chloride (30% or less)/Hydrochloric acid (20% or less) solution	336	Inor	NI	2	Inorg	3	1	1	NI	3	(3C)	3		NI	D	3
	110	RTECS No					CAS No:									
Aluminium sulphate solution	2205	Inor	Inor	2	Inorg	3	1	1	(0)	(3)	(2)	(3)		NI	D	3
	111	RTECS No					CAS No:									
2-(2-Aminoethoxy) ethanol	75	0	0	0	NR	1	0	0	1	(3)	3	3		NI	D	3
	37	RTECS No KJ6125000					CAS No:					929-06-6				
Aminoethyldiethanolamine/Aminoethylethanolamine solution	74	Inor	0	0	NR	1	0	1	(1)	(3)	(3B)	(2)	S	NI	D	3
	113	RTECS No					CAS No:									
Aminoethyl ethanolamine	68	0	0	0	NR	1	0	0	0	0	3B	2	S	NI	D	3
	112	RTECS No KJ6300000					CAS No:					111-41-1				
N-Aminoethylpiperazine	88	0	0	0	NR	1	NI	0	2	(3)	3	3	S	NI	D	3
	472	RTECS No TK8050000					CAS No:					140-31-8				
2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less)	89	0	NI	0	NI	1	NI	0	0	NI	NI	NI		NI	D	NI
	38	RTECS No TY2900000					CAS No:					77-86-1				
2-Amino-2-methyl-1-propanol	90	0	0	0	NR	1	NI	0	0	(3)	3	3		NI	DE	3
	39	RTECS No UA5950000					CAS No:					124-68-5				
Ammonia aqueous (28% or less)	91	0	0	0	R	3	2	1	(2)	3	3	3		NI	DE	3
	114	RTECS No BO0875000					CAS No:					1336-21-6				
Ammonium bisulphite solution (70% or less)	1730	NI	NI	NI	NI	1	NI	NI	NI	NI	2	2		NI	D	2
	115	RTECS No WT3595000					CAS No:					10192-30-0				

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ammonium chloride solution (less than 25%) drilling brines	3411	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Ammonium hydrogen phosphate solution	98	0	0	0	Inorg	1	NI	0	0	0	(1)	(1)		NI	D	1
	117	RTECS No						CAS No:			7783-28-0					
Ammonium lignosulphonate solutions	2086	0	NI	0	NR	0	NI	0	(0)	(0)	0	0		NI	D	0
	118	RTECS No						CAS No:			8061-53-8					
Ammonium nitrate solution (93% or less)	1912	Inor	0	0	Inorg	1	NI	0	0	(2)	1	2		NI	D	2
	119	RTECS No						CAS No:								
Ammonium polyphosphate solution	1764	Inor	0	0	Inorg	1	NI	0	0	0	1	0		NI	D	1
	120	RTECS No						CAS No:			68333-79-9					
Ammonium sulphate solution	99	0	0	0	Inorg	1	(0)	0	(0)	(0)	0	0		NI	D	0
	121	RTECS No			BS4500000			CAS No:			7783-20-2					
Ammonium sulphide solution (45% or less)	310	Inor	0	0	Inorg	3	NI	1	0	(2)	2	2	N	NI	D	2
	122	RTECS No			BS4900000			CAS No:			12124-99-1					
Ammonium thiocyanate (25% or less)/Ammonium thiosulphate (20% or less) solution	1732	Inor	0	0	Inorg	1	NI	1	NI	NI	NI	NI		NI	D	NI
	123	RTECS No						CAS No:								
Ammonium thiosulphate solution (60% or less)	312	Inor	0	0	Inorg	1	NI	0	(0)	(1)	(1)	(1)		NI	D	1
	124	RTECS No			XN6465000			CAS No:			7783-18-8					
Amyl acetate (all isomers)	255	2	2	2	NR	2	NI	0	(0)	0	1	1	S	NT	FED	2
	125	RTECS No			AJ1925000			CAS No:			628-63-7					
n-Amyl alcohol	1110	1	1	1	(R)	1	0	1	0	(3)	2	3		NI	FED	3
	473	RTECS No			SB9800000			CAS No:			71-41-0					
Amyl alcohol, primary	965	1	1	1	(R)	1	0	1	0	(2)	2	2		NI	FED	2
	126	RTECS No			EL5425000			CAS No:			71-41-0					
sec-Amyl alcohol	1111	1	1	1	R	1	0	0	(0)	(2)	2	2		NI	D	2
	637	RTECS No			SA4900000			CAS No:			6032-29-7					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
tert-Amyl alcohol	964	1	1	1	R	1	0	1	1	1	3	2		NI	D	3	
	685	RTECS No SC0175000						CAS No:							75-85-4		
tert-Amyl methyl ether	2141	1	NI	1	NI	4	NI	1	0	(2)	0	1		NI	ED	2	
	2210	RTECS No						CAS No:							994-05-8		
Aniline	261	0	0	0	R	3	2	2	2	3	1	3	CTS	NT	FD	3	
	127	RTECS No BW6650000						CAS No:							62-53-3		
Animal and fish acid oils and distillates, n.o.s., including:	263	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	S	NI	Fp	3	
	128	RTECS No ED0780000						CAS No:							8001-85-2		
Animal and fish oils, n.o.s., including:]* to be considered at MEPC 52	263	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	S	NI	Fp	3	
	129	RTECS No ED0780000						CAS No:							8001-85-2		
Apple juice	275	0	NI	0	R	0	0	0	0	0	0	0		NI	D	0	
	130	RTECS No						CAS No:									
Aryl polyolefins (C11-C50)	1979	NI	NI	0	NR	0	NI	0	0	0	0	0		NI	Fp	2	
	131	RTECS No						CAS No:									
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)	286	(5)	NI	(5)	(R)	(4)	NI	0	0	(0)	(0)	(0)		NI	FE	2	
	132	RTECS No						CAS No:									
Barium long chain (C11-C50) alkaryl sulphonate	1978	4	NI	4	NR	3	NI	2	0	(2)	0	0		NI	S	2	
	2370	RTECS No						CAS No:							61790-48-5		
Benzene and mixtures having 10% benzene or more (i)	324	2	1	1	R	2	NI	1	0	0	2	2	CTM	NT	E	3	
	133	RTECS No CY1400000						CAS No:							71-43-2		
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear	2378	0	3	3	NR	3	0	0	0	(0)	0	0		NI	Fp	2	
	3405	RTECS No						CAS No:							125643-61-0		
Benzene sulphonyl chloride	320	1	1	1	R	(1)	NI	1	(2)	(3)	3	3		NI	SD	3	
	134	RTECS No DB8750000						CAS No:							98-09-9		
Benzenetricarboxylic acid, trioctyl ester	1733	0	0	0	NR	0	NI	0	(0)	2	1	1		NI	Fp	2	
	136	RTECS No						CAS No:									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Benzyl acetate	348	1	NI	1	R	3	1	1	0	2	1	1		NI	SD	2
	138	RTECS No			AF5075000	CAS No:						140-11-4				
Benzyl alcohol	349	1	NI	1	R	2	NI	1	1	2	2	2		NI	SD	2
	139	RTECS No			DN3150000	CAS No:						100-51-6				
Benzyl chloride	352	NI	1	1	R	3	1	1	(2)	3	3	3	CSA	NI	S	3
	140	RTECS No			XS8925000	CAS No:						100-44-7				
bis (Hydrogenated tallow alkyl) methylamines	2232	Ni	NI	NI	NI	NI	NI	0	NI	NI	1	NI		NI	Fp	2
	2426	RTECS No			CAS No:						61788-63-4					
N,N-bis(2-hydroxyethyl) oleamide	2110	5	NI	5	NR	NI	NI	0	0	(2)	2	2		NI	Fp	2
	2201	RTECS No			CAS No:											
Borated calcium sulphonate		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	3147	RTECS No			CAS No:											
Borax	359	Inor	0	0	Inorg	1	0	0	0	(1)	1	1	R	NI	S	3
	143	RTECS No			VZ2275000	CAS No:						1303-96-4				
Boric acid	360	Inor	0	0	Inorg	1	0	0	(0)	(1)	1	1	R	NI	S	3
	2254	RTECS No			ED4550000	CAS No:						10043-35-3				
Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters	2358	(1)	NI	(1)	(R)	(1)	(0)	0	0	0	2	2		NI	D	2
	144	RTECS No			CAS No:											
Brominated epoxy resin in acetone		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	3069	RTECS No			CAS No:											
Bromochloromethane	2084	1	1	1	NR	1	NI	0	0	0	1	0		NI	SD	1
	145	RTECS No			PA5250000	CAS No:						74-97-5				
1-Bromopropane	2229	2	NI	2	NI	NI	NI	0	(0)	0	(2)	(2)		NI	SD	2
	2696	RTECS No			CAS No:						106-94-5					
Butene oligomer	386	0	NI	0	NR	(4)	0	0	0	0	0	1		NI	FE	2
	146	RTECS No			CAS No:						72317-18-1					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Butyl acetate (all isomers)	387	1	NI	1	R	2	NI	0	0	2	0	1		NI	FED	2
	147	RTECS No AF7350000			CAS No:			123-86-4								
Butyl acrylate (all isomers)	390	2	NI	2	R	3	NI	1	1	1	2	2	SA	NI	FED	2
	148	RTECS No UD3150000			CAS No:			141-32-2								
Butyl alcohol (all isomers)	381	0	(0)	0	R	0	NI	0	0	0	2	3		NT	D	3
	2216	RTECS No EO1400000			CAS No:											
n-Butyl alcohol	381	0	(0)	0	R	0	NI	0	0	0	2	3		NT	D	3
	474	RTECS No EO1400000			CAS No:			71-36-3								
sec-Butyl alcohol	383	0	(0)	0	R	0	NI	0	0	0	0	2		NT	D	2
	638	RTECS No EO1750000			CAS No:			78-92-2								
tert-Butyl alcohol	384	0	0	0	NR	1	NI	0	0	0	1	3		NT	D	3
	686	RTECS No EO1925000			CAS No:			71-36-3								
Butylamine (all isomers)	392	0	NI	0	R	2	NI	2	2	3	3C	3		NI	DE	3
	154	RTECS No EO2975000			CAS No:			109-73-9								
Butylbenzene (all isomers)	1774	4	NI	4	NI	4	1	0	0	(2)	2	1		NI	Fp	2
	155	RTECS No CY9070000			CAS No:			104-51-8								
Butyl benzyl phthalate	398	4	4	4	R	4	2	0	0	(0)	(0)	(0)	R	NI	S	3
	149	RTECS No TH9990000			CAS No:			85-68-7								
Butyl butyrate (all isomers)	399	2	NI	2	NI	2	NI	0	0	(1)	1	NI		NI	FE	2
	150	RTECS No ES8120000			CAS No:			109-21-7								
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	2295	(5)	NI	(5)	(NR)	(3)	NI	0	0	0	2	2		NI	FE	2
	153	RTECS No			CAS No:			97-88-1								
Butylene glycol	402	0	NI	0	R	1	NI	1	0	0	0	0		NI	D	1
	156	RTECS No EK0525000			CAS No:			110-63-4								
1,2-Butylene oxide	403	0	NI	0	NR	2	NI	1	1	2	1	1	C	NI	DE	3
	8	RTECS No EK3675000			CAS No:			106-88-7								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
n-Butyl ether	578	3	3	3	NR	2	NI	0	0	0	1	1		NI	FE	2
	475	RTECS No EK5425000						CAS No:						142-96-1		
Butyl methacrylate	409	2	NI	2	NR	1	NI	0	0	0	2	2	S	NI	FE	2
	151	RTECS No OZ3675000						CAS No:						97-88-1		
Butyl octyl phthalate	410	5	NI	5	(R)	0	2	0	0	(1)	1	1	R	NI	Fp	3
	2749	RTECS No						CAS No:						85-69-8		
n-Butyl propionate	1483	2	NI	2	R	2	NI	0	0	0	1	1		NI	FED	2
	476	RTECS No UE8245000						CAS No:						590-01-2		
Butyl stearate	413	0	NI	0	NI	0	NI	0	NI	NI	NI	NI		NI	Fp	2
	152	RTECS No WI2900000						CAS No:						123-95-5		
Butyraldehyde (all isomers)	416	1	NI	1	R	2	0	0	1	0	3	3		NI	DE	3
	157	RTECS No ES2275000						CAS No:						123-72-8		
Butyric acid	418	0	NI	0	R	2	0	0	1	0	3A	3		NI	D	3
	158	RTECS No ES5425000						CAS No:						107-92-6		
gamma-Butyrolactone	420	0	NI	0	R	(3)	NI	1	(0)	0	0	1	C	NI	D	3
	360	RTECS No LU3500000						CAS No:						96-48-0		
Calcium alkyl (C9) phenol sulphide/Polyolefin phosphorosulphide mixture	1435	NI	NI	NI	NR	4	NI	0	0	(0)	NI	NI		NI	NI	NI
	160	RTECS No						CAS No:								
Calcium alkylsalicylate	2015	3	NI	3	NR	2	NI	0	0	(2)	2	2		NI	Fp	2
	3152	RTECS No						CAS No:								
Calcium carbonate slurry	2016	Inor	0	0	Inorg	1	NI	0	(0)	(1)	0	1		NI	S	2
	161	RTECS No FF9335000						CAS No:						471-34-1		
Calcium hydroxide slurry	431	Inor	0	0	Inorg	1	NI	0	(0)	(2)	1	2		NI	S	2
	162	RTECS No EW2800000						CAS No:						1305-62-0		
Calcium hypochlorite solution (15% or less)	2073	Inor	0	0	Inorg	(4)	NI	1	0	1	3A	3		NI	D	3
	163	RTECS No NH3485000						CAS No:						7778-54-3		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Calcium hypochlorite solution (more than 15%)	432	Inor	0	0	Inorg	5	NI	1	0	1	3A	3		NI	D	3
	164	RTECS No						CAS No:								7778-54-3
Calcium lignosulphonate solutions	2087	0	NI	0	NR	0	NI	0	(0)	(0)	0	0		NI	D	0
	165	RTECS No						CAS No:								
Calcium long-chain alkaryl sulphonate (C11-C50)	1973	NI	0	0	NR	0	NI	0	0	(1)	1	1	S	NI	FD	2
	169	RTECS No						CAS No:								61789-86-4
Calcium long-chain alkyl(C5-C10) phenate	2106	0	NI	0	NR	2	NI	0	0	(0)	0	0		NI	FD	1
	168	RTECS No						CAS No:								
Calcium long-chain alkyl(C11-C40) phenate	2097	0	NI	0	NR	0	NI	0	0	(1)	1	1		NI	Fp	2
	167	RTECS No						CAS No:								
Calcium long-chain alkyl phenate sulphide (C8-C40)	1756	0	NI	0	NR	1	NI	0	0	(1)	1	1		NI	Fp	2
	170	RTECS No						CAS No:								
Calcium long-chain alkyl phenolic amine (C8-C40)	1728	NI	NI	NI	NR	0	NI	0	0	(1)	1	(1)		NI	Fp	2
	171	RTECS No						CAS No:								
Calcium long-chain alkyl salicylate (C13+)	70	0	NI	0	NR	2	NI	0	0	(1)	(1)	(1)	S	NI	Fp	3
	166	RTECS No						CAS No:								114959-46-5
Calcium long-chain alkyl (C18-C28) salicylate	2383	0	NI	0	NR	0	NI	0	0	(1)	1	0	S	NI	Fp	3
	3426	RTECS No						CAS No:								
Calcium nitrate/Magnesium nitrate/Potassium chloride solution	1734	Inor	0	0	Inorg	1	0	0	(0)	(1)	(1)	1		NI	D	1
	173	RTECS No						CAS No:								10124-37-5
Calcium nitrate solutions (50% or less)	1803	Inor	0	0	Inorg	0	NI	0	(0)	(1)	1	1		NI	D	1
	172	RTECS No						CAS No:								10124-37-5
Camphor oil	1897	NI	NI	NI	NI	NI	NI	2	NI	(2)	1	NI		(T)	FE	2
	174	RTECS No						CAS No:								8008-51-3
epsilon-Caprolactam (molten or aqueous solutions)	436	0	NI	0	R	1	0	1	1	4	1	2		NI	D	3
	310	RTECS No						CAS No:								105-60-2

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Caramel solutions	175	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Carbolic oil	437	(3)	3	(3)	(NR)	(3)	(1)	2	2	3	3	3	ATNCM	NI	FED	3
	176	RTECS No						CAS No:			88465-00-3					
Carbon disulphide	439	2	1	1	NR	3	NI	2	(3)	4	3A	2	RN	NI	SD	3
	177	RTECS No			FF6650000			CAS No:			75-15-0					
Carbon tetrachloride	1296	2	2	2	NR	3	0	0	0	0	1	1	CT	NI	S	3
	178	RTECS No			FG4900000			CAS No:			56-23-5					
Cashew nut shell oil (untreated)	443	0	NI	0	R	0	NI	(0)	(0)	(2)	2	(2)	S	NI	Fp	3
	179	RTECS No						CAS No:			8007-24-7					
Castor oil	2314	0	NI	0	R	(2)	NI	0	0	(1)	1	1		NI	Fp	2
	3044	RTECS No						CAS No:								
Castor oil	442	0	NI	0	R	(2)	NI	0	0	(1)	1	1		NI	Fp	2
	2773	RTECS No			FI4100000			CAS No:			8001-79-4					
Cesium formate solution drilling brines	3421	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Cetyl/Eicosyl methacrylate mixture	445	0	NI	0	(NR)	(0)	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2
	180	RTECS No						CAS No:								
Chlorinated paraffins (C10-C13)	2021	5	5	5	NR	5	2	0	0	(1)	1	1	C	NI	S	3
	181	RTECS No						CAS No:			85535-84-8					
Chlorinated paraffins (C10-C13) (60% chlorine or less)	2020	5	5	5	NR	5	3	(0)	(0)	(1)	(1)	(1)	C	NI	S	3
	2832	RTECS No						CAS No:			85535-84-8					
Chlorinated paraffins (C14-C17) (with 50% chlorine or more, and less than 1% C13 or shorter chains)	2112	5	4	4	NR	6	3	0	0	(2)	2	2	C	NI	S	3
	182	RTECS No						CAS No:			85535-85-9					
Chlorinated paraffins (C18+) with any level of chlorine	2024	0	4	4	NR	0	2	0	0	(1)	(1)	(1)	C	NI	S	3
	183	RTECS No						CAS No:			63449-39-8					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Chloroacetic acid (80% or less)	450	0	NI	0	R	2	0	2	3	(4)	3C	3	A	NI	D	3
	184	RTECS No AF8575000						CAS No:			79-11-8					
Chlorobenzene	456	2	2	2	NR	3	0	1	0	1	2	0		NI	S	2
	185	RTECS No CZ0175000						CAS No:			108-90-7					
Chloroform	1328	1	1	1	NR	2	0	2	0	2	1	1	CT	NI	SD	3
	186	RTECS No FS9100000						CAS No:			67-66-3					
Chlorohydrins (crude)	463	0	NI	0	R	0	NI	(2)	(2)	(3)	(3A)	3	CS	NI	D	3
	187	RTECS No TY4025000						CAS No:			96-24-2					
N-(3-Chloro-2-hydroxypropyl)trimethyl ammonium chloride solution (75% or less)	2286	0	0	0	NR	1	NI	0	0	(2)	0	(2)	SC	NI	D	3
	2579	RTECS No						CAS No:			3327-22-8					
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	1536	2	NI	2	NI	2	NI	1	0	2	1	1	S	0	S	2
	62	RTECS No						CAS No:								
o-Chloronitrobenzene	467	2	2	2	NR	3	NI	2	2	2	1	1		NI	S	2
	533	RTECS No CZ0855000						CAS No:			25167-93-5					
1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one	1772	3	3	3	NR	3	NI	0	0	(1)	1	0		NI	S	1
	21	RTECS No						CAS No:								
2- or 3-Chloropropionic acid	474	0	NI	0	R	1	NI	1	(3)	2	3A	3		NI	D	3
	36	RTECS No UE8570000						CAS No:			598-78-7					
Chlorosulphonic acid	479	Inor	0	0	Inorg	2	NI	1	0	2	1	1		NI	D	2
	188	RTECS No FX5730000						CAS No:			7790-94-5					
m-Chlorotoluene	481	3	NI	3	NR	2	NI	2	0	2	1	1		NI	S	2
	426	RTECS No XS8990000						CAS No:			108-41-8					
o-Chlorotoluene	480	3	3	3	NR	3	1	2	0	2	1	1		NI	S	2
	534	RTECS No XS9000000						CAS No:			95-49-8					
p-Chlorotoluene	482	3	3	3	NR	3	0	0	0	2	1	1		NI	S	2
	551	RTECS No XS9010000						CAS No:			106-43-4					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Chlorotoluenes (mixed isomers)	480	3	3	3	NR	3	1	2	0	2	1	1		NI	S	2
	189	RTECS No XS9000000						CAS No:							95-49-8	
Choline chloride solutions	485	0	NI	0	R	1	NI	0	(0)	(0)	0	0		NI	D	0
	190	RTECS No KH2975000						CAS No:							67-48-1	
Citric acid (70% or less)	493	0	NI	0	R	1	0	0	(0)	(3)	1	3		NI	D	3
	748	RTECS No GE7350000						CAS No:							77-92-9	
Clay slurry	495	Inor	0	0	Inorg	0	0	0	0	0	0	0		NI	S	0
	191	RTECS No						CAS No:								
Coal slurry	498	Inor	0	0	Inorg	0	0	0	0	0	0	0		NI	S	0
	192	RTECS No						CAS No:								
Coal tar	499	(4)	4	4	NR	3	1	0	0	0	2	2	CMR	(T)	S	3
	193	RTECS No GF8600000						CAS No:							65996-93-2	
Coal tar naphtha solvent	500	3	NI	3	NR	3	NI	0	0	(1)	1	1	C	(T)	FE	3
	194	RTECS No DE3030000						CAS No:							8030-30-6	
Coal tar pitch (molten)	491	3	(3)	(3)	NR	4	2	0	0	(1)	1	0	CM	NI	S	3
	195	RTECS No GF8655000						CAS No:							65996-93-2	
Cobalt naphthenate in solvent naphtha	501	NI	NI	NI	NR	3	NI	0	(0)	(1)	NI	1	C	NI	FE/F	3
	196	RTECS No						CAS No:								
Cocoa butter	2342	0	NI	0	R	0	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
	3096	RTECS No						CAS No:							8002-31-1	
Coconut acid oil	2370	0	0	0	R	3	NI	(0)	(0)	(1)	(1)	(1)		NI	Fp	2
	3139	RTECS No						CAS No:								
Coconut fatty acid distillate	2366	0	NI	0	R	(3)	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2
	3130	RTECS No						CAS No:							61788-47-4	
Coconut oil	503	0	NI	0	R	1	NI	0	(0)	(1)	0	1		NI	Fp	2
	2772	RTECS No GG6040000						CAS No:							8001-31-8	

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Coconut oil fatty acid	505	0	0	0	(R)	0	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2	
	197	RTECS No						CAS No:							61788-47-4		
Coconut oil fatty acid methyl ester	506	5	0	0	R	0	NI	(0)	(0)	(0)	(0)	(1)		NI	Fp	2	
	198	RTECS No						CAS No:							61788-59-8		
Copper salt of long chain (C17+) alkanolic acid	2111	0	NI	0	(R)	2	NI	0	0	(0)	0	0		NI	Fp	2	
	2214	RTECS No						CAS No:									
Corn Oil	521	0	NI	0	R	(2)	NI	0	(0)	(1)	1	1		NI	Fp	2	
	2781	RTECS No			GM4800000			CAS No:							8001-30-7		
Cotton seed oil	523	0	NI	0	R	(2)	NI	(0)	(0)	(1)	0	1		NI	Fp	2	
	2783	RTECS No			GN2815000			CAS No:							8001-29-4		
Creosote (coal tar)	524	(4)	(4)	(4)	NR	4	(2)	1	0	2	2	1	CM	(T)	S	3	
	199	RTECS No			GF8615000			CAS No:							8001-58-9		
Creosote (wood)	525	NI	NI	NI	NR	5	NI	1	0	2	2	1	CM	(T)	SD	3	
	200	RTECS No			GO5870000			CAS No:							8021-39-4		
Cresols (all isomers)	527	2	2	2	R	3	0	2	2	(3)	3A	3		T	SD	3	
	201	RTECS No			GO5950000			CAS No:							1319-77-3		
Cresylic acid, dephenolized	1875	2	2	2	R	3	0	(2)	(2)	(3)	(3A)	(3)		(T)	S	3	
	202	RTECS No						CAS No:									
Cresylic acid, sodium salt solution	1914	(2)	(2)	(2)	(R)	(3)	(0)	1	(1)	(3)	3	3	TCM	(T)	D	3	
	203	RTECS No						CAS No:									
Crotonaldehyde	528	0	NI	0	NR	3	1	2	4	4	2	3		NI	D	3	
	204	RTECS No			GP9499000			CAS No:							4170-30-3		
Crude carbon tetrachloride		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	
	3070	RTECS No						CAS No:									
Crude Piperazine	2331	0	NI	0	R	2	NI	(1)	(2)	(3)	3	3	S	NI	D	3	
	2810	RTECS No						CAS No:									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
1,5,9-Cyclododecatriene	534 17	5	5	5	NR	4	NI	0	0	2	2	2	SA	NI	F	3
		RTECS No			GU2308000	CAS No:						4904-61-4				
Cycloheptane	535 205	4	NI	4	(NR)	4	NI	(0)	0	(1)	(0)	(1)		NI	FE	2
		RTECS No			GU3140000	CAS No:						291-64-5				
Cyclohexane	536 206	3	3	3	NR	3	NI	0	0	1	0	1		NI	E	2
		RTECS No			GU6300000	CAS No:						110-82-7				
Cyclohexanol	537 207	1	NI	1	R	2	NI	0	0	0	2	2		NI	Fp	2
		RTECS No			GV7875000	CAS No:						108-93-0				
Cyclohexanone	539 208	0	1	1	R	1	0	1	1	1	2	2		NI	FE	2
		RTECS No			GW1050000	CAS No:						108-93-0				
Cyclohexanone, Cyclohexanol mixture	1436 209	1	1	1	R	2	NI	1	1	1	2	2		NI	FED	2
		RTECS No				CAS No:										
Cyclohexyl acetate	541 210	2	NI	2	(R)	(2)	NI	0	0	(2)	2	1		NI	FED	2
		RTECS No			AG5075000	CAS No:						622-45-7				
Cyclohexylamine	542 211	1	NI	1	R	2	NI	2	2	3	3	3	S	NI	D	3
		RTECS No			GX0700000	CAS No:						108-91-8				
1,3-Cyclopentadiene dimer (molten)	545 11	3	3	3	NR	3	NI	2	0	3	2	2		NI	Fp	2
		RTECS No			PC1050000	CAS No:						77-73-6				
Cyclopentane	546 212	3	NI	3	NR	3	NI	(0)	(0)	0	1	(1)		NI	E	2
		RTECS No			GY2390000	CAS No:						287-92-3				
Cyclopentene	547 213	2	NI	2	NI	3	NI	1	1	0	NI	NI		NI	E	2
		RTECS No			GY5950000	CAS No:						142-29-0				
p-Cymene	549 552	4	4	4	(NR)	3	NI	0	(0)	1	2	(1)		NI	FE	2
		RTECS No			GZ5950000	CAS No:						99-87-6				
Decahydronaphthalene	551 214	4	4	4	NR	3	NI	0	0	(1)	1	1		NI	F	1
		RTECS No			QJ3150000	CAS No:						91-17-8				

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Decane	554	5	NI	5	R	0	0	0	0	0	1	0		NI	F	1
	2620	RTECS No HD6550000						CAS No:			124-18-5					
Decanoic acid	555	4	NI	4	R	4	1	0	0	(2)	2	2		NI	Fp	2
	215	RTECS No HD9100000						CAS No:			334-48-5					
Decene	558	5	NI	5	R	4	2	0	0	0	2	0	A	NI	F	3
	216	RTECS No						CAS No:			25339-53-1					
Decyl acetate	1767	4	NI	4	NI	NI	NI	0	0	(1)	(1)	(1)		NI	F	1
	217	RTECS No						CAS No:			112-17-4					
Decyl acrylate	559	5	NI	5	NI	5	NI	0	0	(2)	2	1		NI	Fp	2
	218	RTECS No AS7400000						CAS No:			2156-96-9					
Decyl alcohol (all isomers)	557	3	2	2	R	3	NI	0	0	0	2	1		NI	Fp	2
	219	RTECS No NR0960000						CAS No:			25339-17-7					
Decyloxytetrahydrothiophene dioxide	1859	3	NI	3	NR	4	NI	0	0	(1)	1	0		NI	Fp	2
	220	RTECS No						CAS No:			18760-44-6					
Dextrose solution	562	0	0	0	R	0	NI	0	0	0	0	(0)		NI	D	0
	221	RTECS No LZ6600000						CAS No:			50-99-7					
Diacetone alcohol	563	0	NI	0	R	1	0	0	0	(2)	2	2		NI	D	2
	226	RTECS No SA9100000						CAS No:			123-42-2					
Dialkyl (C8-C9) diphenylamines	1852	5	NI	5	NR	1	0	0	0	(0)	0	0		NI	FD	0
	2255	RTECS No						CAS No:								
Dialkyl (C7-C13) phthalates	566	0	4	4	(NR)	0	2	0	0	(1)	1	1	R	NI	Fp	3
	227	RTECS No						CAS No:								
Dialkyl (C9 - C10) phthalates	2359	(0)	(0)	(0)	(R)	(0)	(0)	0	0	(1)	0	1		NI	Fp	2
	3121	RTECS No						CAS No:								
Dialkyl thiophosphates sodium salts solution	2381	1	0	1	NR	2	NI	0	0	(2)	2	2		NI	D	2
	3424	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dibromomethane	574	1	NI	1	NR	(2)	NI	1	0	0	NI	NI		NI	SD	1
	228	RTECS No PA7350000			CAS No:			74-95-3								
Dibutylamine	577	2	NI	2	R	3	NI	2	2	3	3	3		NI	FD	3
	231	RTECS No HR7780000			CAS No:			110-96-3								
Dibutyl hydrogen phosphonate	1857	1	NI	1	NI	2	NI	0	0	(3)	3	3		NI	F	3
	229	RTECS No			CAS No:			1809-19-4								
2,4-Di-tert-butylphenol	2083	5	4	4	NR	4	NI	NI	NI	NI	NI	NI		NI	NI	NI
	2339	RTECS No SK8260000			CAS No:			96-76-4								
2,6-Di-tert-butylphenol	2082	4	NI	4	NR	4	NI	0	0	(1)	1	1		NI	Fp	2
	2250	RTECS No SK8265000			CAS No:			128-39-2								
Dibutyl phthalate	582	4	4	4	R	4	1	0	0	1	0	1	R	NI	S	3
	230	RTECS No TI0875000			CAS No:			84-74-2								
Dichlorobenzene (all isomers)	333	3	4	4	NR	3	1	1	0	1	(2)	2	CMR	T	S	3
	232	RTECS No			CAS No:			541-73-1								
3,4-Dichloro-1-butene	2079	2	2	2	NR	3	NI	1	0	2	2	3		NI	S	3
	56	RTECS No EM4740000			CAS No:			760-23-6								
1,1-Dichloroethane	590	1	NI	1	NR	1	NI	1	(1)	0	2	2		NI	SD	2
	4	RTECS No KI0175000			CAS No:			75-34-3								
Dichloroethyl ether	588	1	1	1	NR	1	0	2	3	4	1	3	M	T	SD	3
	233	RTECS No KN0875000			CAS No:			111-44-4								
1,6-Dichlorohexane	593	3	NI	3	NR	3	NI	0	(0)	(0)	0	0		NI	S	0
	19	RTECS No			CAS No:			2163-00-0								
2,2'-Dichloroisopropyl ether	615	2	2	2	NR	2	NI	2	0	2	0	2		NI	SD	2
	25	RTECS No KN1750000			CAS No:			108-60-1								
Dichloromethane	594	1	2	2	NR	1	0	1	0	0	2	2	C	NI	SD	3
	234	RTECS No PA8050000			CAS No:			75-09-2								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2,4-Dichlorophenol	596 30	3	2	2	R	3	2	3	2	3	3	3		T	S	3
		RTECS No SK8575000						CAS No:			120-83-2					
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	599 32	0	1	1	R	3	NI	1	0	(3)	1	3		(T)	D	3
		RTECS No						CAS No:								
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)	600 33	0	1	1	R	3	NI	1	0	(3)	1	3		(T)	D	3
		RTECS No						CAS No:			2008-39-1					
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	602 34	0	NI	0	R	2	NI	1	0	(3)	(1)	3		(T)	D	3
		RTECS No						CAS No:			2569-10-9					
1,1-Dichloropropane	605 5	2	1	1	NR	2	1	0	0	1	1	1		NI	SD	1
		RTECS No TX9450000						CAS No:			78-99-9					
1,2-Dichloropropane	606 9	2	1	1	NR	2	1	1	0	2	2	2		NI	SD	2
		RTECS No TX9625000						CAS No:			78-87-5					
1,3-Dichloropropane	607 12	2	1	1	NR	2	1	0	NI	NI	NI	NI		NI	SD	NI
		RTECS No TX9660000						CAS No:			542-75-6					
1,3-Dichloropropene	612 13	1	NI	1	NR	4	1	2	1	2	3	3	CS	NI	SD	3
		RTECS No UC8310000						CAS No:			542-75-6					
Dichloropropene/Dichloropropane mixtures	608 235	2	1	1	NR	4	1	2	1	2	3	3	CS	NI	SD	3
		RTECS No TX9800000						CAS No:			8003-19-8					
2,2-Dichloropropionic acid	609 28	2	2	2	NR	2	NI	1	0	(3)	3	3		NI	D	3
		RTECS No UF0690000						CAS No:			75-99-0					
Diethanolamine	620 236	0	NI	0	R	1	0	1	0	0	2	3	T	NI	D	3
		RTECS No KL2975000						CAS No:			111-42-2					
Diethylamine	621 240	0	NI	0	R	2	NI	1	2	3	3C	3		NI	DE	3
		RTECS No HZ8750000						CAS No:			109-89-7					
Diethylaminoethanol	622 241	0	NI	0	NR	3	NI	1	1	2	3	3		NI	D	3
		RTECS No KK5075000						CAS No:			100-37-8					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2,6-Diethylaniline	1437 35	3	3	3	NR	2	NI	1	1	(2)	1	2		NI	FD	2
		RTECS No BX3500000						CAS No:			579-66-8					
Diethylbenzene	624 242	4	4	4	NR	3	NI	0	(0)	(2)	2	1		NI	F	2
		RTECS No CZ5600000						CAS No:			25340-17-4					
Di-(2-ethylbutyl) phthalate	625 2750	5	NI	5	R	0	2	0	0	(1)	1	1	R	NI	Fp	3
		RTECS No TI1100000						CAS No:								
Diethylene glycol	628 243	0	NI	0	R	0	0	1	0	2	1	1		NI	D	2
		RTECS No ID5950000						CAS No:			111-46-6					
Diethylene glycol dibutyl ether	629 244	2	NI	2	NI	1	NI	0	0	(1)	1	1		NI	FD	1
		RTECS No KN0350000						CAS No:			112-73-2					
Diethylene glycol diethyl ether	630 245	0	NI	0	NR	0	NI	1	0	(2)	(2)	2		NI	D	2
		RTECS No KN3160000						CAS No:			112-36-7					
Diethylene glycol initiated poloxypropylene diamine	2353 3113	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI		NI	D	NI
		RTECS No						CAS No:			194673-87-5					
Diethylene glycol phthalate	1438 247	2	NI	2	NR	1	NI	0	0	(2)	(1)	2		NI	S	2
		RTECS No						CAS No:								
Diethylenetriamine	638 248	0	1	1	(R)	2	NI	1	3	3	3A	3	S	NI	FD	3
		RTECS No IE1225000						CAS No:			111-40-0					
Diethylenetriaminepentaacetic acid, pentasodium salt solution	2076 249	0	NI	0	NR	0	NI	0	(0)	(0)	0	0		NI	D	0
		RTECS No						CAS No:			140-01-2					
Diethyl ether	640 237	0	1	1	NR	0	NI	1	0	0	1	1		NI	DE	2
		RTECS No KI5775000						CAS No:			60-29-7					
Di-(2-ethylhexyl) adipate	641 222	0	2	2	R	4	2	0	0	0	1	1	R	NI	Fp	3
		RTECS No AU9700000						CAS No:			103-23-1					
Di-(2-ethylhexyl) phosphoric acid	643 223	(2)	1	1	NR	2	NI	0	1	(2)	2	2		NI	Fp	2
		RTECS No TB7875000						CAS No:			298-07-7					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Di-(2-ethylhexyl) phthalate	642	0	4	4	NR	0	0	0	0	1	1	1	R	NI	Fp	3	
	2751	RTECS No TI0350000			CAS No:			117-81-7									
Diethyl phthalate	648	3	3	3	R	2	0	1	0	(2)	1	1		NI	S	2	
	238	RTECS No TI1050000			CAS No:			84-66-2									
Diethyl sulphate	649	1	NI	1	(NR)	(2)	NI	1	2	3	2	3	CM	NI	SD	3	
	239	RTECS No WS7875000			CAS No:			64-67-5									
Diglycidyl ether of bisphenol A	653	3	NI	3	NR	4	NI	0	0	(2)	1	2	S	NI	S	2	
	250	RTECS No TX3800000			CAS No:			1675-54-3									
Diglycidyl ether of bisphenol F	728	0	NI	0	NR	3	NI	0	(0)	(2)	1	(2)	SR	NI	S	3	
	251	RTECS No			CAS No:			55492-52-9									
Diheptyl phthalate	655	0	2	2	R	0	NI	0	0	(1)	1	1	R	NI	Fp	3	
	252	RTECS No TI1090000			CAS No:			3648-21-3									
Di-n-hexyl adipate	656	5	NI	5	(NR)	5	0	0	0	(1)	0	1		NI	FE	1	
	224	RTECS No AV1150000			CAS No:			110-33-8									
Dihexyl phthalate	2125	5	NI	5	R	0	2	0	0	(1)	1	1	R	NI	Fp	3	
	253	RTECS No TI1100000			CAS No:			84-75-3									
1,4-Dihydro-9,10-dihydroxyanthracene, disodium salt solution	657	1	NI	1	NI	1	NI	0	NI	NI	NI	NI		NI	D	NI	
	15	RTECS No			CAS No:												
Diisobutylamine	576	2	NI	2	R	3	NI	2	(2)	2	(3)	(3)		NI	FED	3	
	256	RTECS No TX1750000			CAS No:			110-96-3									
Diisobutylene	575	4	4	4	NR	3	NI	0	0	0	1	0		NI	FE	2	
	257	RTECS No SB2715000			CAS No:			25167-70-8									
Diisobutyl ketone	579	3	NI	3	R	2	NI	0	0	2	2	2		NI	F	2	
	254	RTECS No MJ5775000			CAS No:			108-83-8									
Diisobutyl phthalate	581	4	(4)	4	R	4	1	0	0	(0)	0	0	R	NI	S	3	
	255	RTECS No TI1225000			CAS No:			84-69-5									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Diisodecyl phthalate	619	0	0	0	(R)	0	NI	0	0	(0)	0	1		NI	Fp	2
	3119	RTECS No TI1270000						CAS No:						26761-40-0		
Diisononyl adipate	690	0	NI	0	R	0	0	0	0	(1)	1	1		NI	Fp	2
	258	RTECS No						CAS No:						33703-08-1		
Diisononyl phthalate	691	0	0	0	R	0	0	0	0	(0)	0	0		NI	Fp	2
	3120	RTECS No						CAS No:								
Diioctyl phthalate	693	0	4	4	(NR)	0	0	0	0	(1)	1	0		NI	Fp	2
	259	RTECS No TI1300000						CAS No:						27554-26-3		
Diisopropanolamine	703	0	NI	0	NR	1	NI	0	0	0	2	3		NI	FD	3
	260	RTECS No UB6600000						CAS No:						110-97-4		
Diisopropylamine	705	1	NI	1	NR	2	0	1	1	2	3	3		NI	ED	3
	261	RTECS No IM4025000						CAS No:						108-18-9		
Diisopropylbenzene (all isomers)	2220	5	4	4	NR	4	NI	0	0	2	2	1		(T)	F	2
	262	RTECS No						CAS No:						25321-09-9		
1,3-Diisopropyl benzene	706	5	4	4	NR	4	NI	0	0	2	2	1		NI	F	2
	2626	RTECS No CZ6330000						CAS No:								
Diisopropyl naphthalene	712	5	4	4	NR	(3)	NI	0	0	(1)	1	1		NI	Fp	2
	263	RTECS No QJ1527000						CAS No:						38640-62-9		
N,N-Dimethylacetamide	658	0	NI	0	R	1	NI	0	0	2	1	2		NI	D	2
	2730	RTECS No AB7700000						CAS No:						127-19-5		
N,N-Dimethylacetamide solution (40% or less)	658	0	NI	0	R	1	NI	0	0	2	1	2		NI	D	2
	466	RTECS No AB7700000						CAS No:						127-19-5		
Dimethyl adipate	659	1	NI	1	NR	4	NI	0	0	2	1	1		NI	SD	2
	264	RTECS No AV1645000						CAS No:						627-93-0		
Dimethylamine (anhydrous)	660	NI	NI		NI	NI	NI	2	0	2	3B	3	S	NT	GD	3
	2628	RTECS No IP8750000						CAS No:						124-40-3		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dimethylamine solution (45% or less)	661 270	0	NI	0	R	3	0	2	0	2	3B	3	S	NT	DE	3
			RTECS No	IP8750000				CAS No:								124-40-3
Dimethylamine solution (greater than 45% but not greater than 55%)	661 271	0	NI	0	R	3	0	2	0	2	3B	3	S	NT	DE	3
			RTECS No	IP8750000				CAS No:								124-40-3
Dimethylamine solution (greater than 55% but not greater than 65%)	661 272	0	NI	0	R	3	0	2	0	2	3B	3	S	NT	DE	3
			RTECS No	IP8750000				CAS No:								124-40-3
N,N-Dimethylcyclohexylamine	665 467	2	NI	2	NR	2	NI	1	2	3	3C	3		NI	FD	3
			RTECS No	GX1198000				CAS No:								98-94-2
Dimethyl disulphide	1616 2504	1	NI	1	NR	3	2	2	0	2	1	1		NI	SD	2
			RTECS No	JO1927500				CAS No:								624-92-0
N,N-Dimethyldodecylamine	2126 468	5	NI	5	R	4	NI	1	(1)	(3)	3	3		NI	F	3
			RTECS No	JR6600000				CAS No:								112-18-5
Dimethylethanolamine	667 273	0	NI	0	R	2	NI	1	1	2	3	3		NI	D	3
			RTECS No	KK6125000				CAS No:								108-01-0
Dimethylformamide	676 274	0	0	0	R	1	0	0	1	2	1	2	R	NI	D	3
			RTECS No	LQ2100000				CAS No:								68-12-2
Dimethyl glutarate	670 265	0	NI	0	R	3	NI	0	0	2	3	2	A	NI	SD	3
			RTECS No					CAS No:								1119-40-0
Dimethyl hydrogen phosphite	673 266	0	NI	0	NR	2	NI	1	0	0	1	1		NI	D	1
			RTECS No	SZ7710000				CAS No:								868-85-9
Dimethyl octanoic acid	675 267	3	NI	3	R	4	1	0	0	(2)	2	2		NI	Fp	2
			RTECS No					CAS No:								29662-90-6
Dimethyl phthalate	678 268	2	2	2	R	2	0	0	0	(1)	0	1	R	NI	SD	3
			RTECS No	TI1575000				CAS No:								131-11-3
Dimethylpolysiloxane	1161 275	NI	4	4	NI	2	NI	0	(0)	(0)	0	0		NI	F	1
			RTECS No					CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2,2-Dimethylpropane-1,3-diol (molten or solution)	679	0	0	0	NR	0	0	0	0	0	2	2		NI	FD	2
	29	RTECS No TY5775000						CAS No:						126-30-7		
Dimethyl succinate	681	0	NI	0	NI	2	NI	0	0	0	0	2		NI	SD	2
	269	RTECS No WM7675000						CAS No:						106-65-0		
Dinitrotoluene (molten)	688	2	2	2	NR	4	2	2	(2)	(2)	1	0	CMR	NI	S	3
	276	RTECS No XT1300000						CAS No:						25321-14-6		
Dinonyl phthalate	689	0	NI	0	R	0	O	0	0	(1)	1	1	R	0	Fp	3
	2993	RTECS No TI1800000						CAS No:						84-76-4		
Diocetyl phthalate	692	0	(4)	(4)	(NR)	0	0	0	0	(1)	1	(1)	R	NI	Fp	3
	277	RTECS No TI1925000						CAS No:						117-84-0		
1,4-Dioxane	682	0	0	0	NR	0	0	0	0	0	0	2	C	NI	D	3
	16	RTECS No JG8225000						CAS No:						123-91-1		
Dipentene	686	4	NI	4	NR	2	NI	0	0	(2)	2	2	S	NI	F	3
	278	RTECS No OS8100000						CAS No:						138-86-3		
Diphenyl	694	3	4	4	R	4	1	0	0	(2)	2	1		NI	S	2
	279	RTECS No DU8050000						CAS No:						92-52-4		
Diphenylamine (molten)	2186	3	3	3	NR	3	1	0	0	(1)	1	1		NI	S	1
	285	RTECS No						CAS No:						122-39-4		
Diphenylamine, reaction product with 2,2,4-Trimethylpentene	1500	NI	1	1	NR	3	NI	0	0	(1)	1	1	S	NI	Fp	3
	286	RTECS No						CAS No:						68411-46-1		
Diphenylamines, alkylated	1770	5	NI	5	NR	(3)	NI	0	0	(1)	(1)	(1)	S	NI	F	3
	287	RTECS No						CAS No:						68921-45-9		
Diphenyl/Diphenyl ether mixtures	698	NI	NI	4	NR	4	1	0	0	(1)	1	1		(T)	S	1
	283	RTECS No DV1500000						CAS No:						8004-13-5		
1,1-Diphenylethane, Ethylenated benzene by-products		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	2945	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Diphenyl ether	699	4	4	4	NR	4	NI	0	0	0	1	1		T	S	1
	281	RTECS No KN8970000						CAS No:			101-84-8					
Diphenyl ether/Diphenyl phenyl ether mixture	702	5	NI	5	NR	4	NI	0	0	0	1	1		(T)	S	1
	282	RTECS No						CAS No:								
Diphenylmethane diisocyanate	700	5	2	2	NR	0	0	0	0	4	2	2	S	NI	S	3
	288	RTECS No NQ9350000						CAS No:			101-68-8					
Diphenylol propane	2289	4	NI	4	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	289	RTECS No						CAS No:								
Diphenylol propane-epichlorohydrin resins	2237	3	NI	3	NR	4	NI	0	0	(2)	1	2		NI	S	2
	290	RTECS No						CAS No:			1675-54-3					
Di-n-propylamine	704	1	NI	1	NR	3	NI	2	2	2	3C	3		NI	FED	3
	225	RTECS No JL9200000						CAS No:			142-84-7					
Dipropylene glycol	707	0	1	1	NR	0	NI	0	0	0	1	1		NI	D	1
	291	RTECS No UB8785000						CAS No:			110-98-5					
Dipropylene glycol dibenzoate	708	4	NI	4	R	NI	NI	0	(0)	NI	NI	NI		NI	NI	NI
	2431	RTECS No UB8787500						CAS No:			27138-31-4					
Di-n-propyl phthalate	713	3	NI	3	(R)	3	NI	0	0	(1)	1	1	R	NI	S	3
	2752	RTECS No TI1940000						CAS No:			131-16-8					
Dithiocarbamate ester (C7-C35)	2185	NI	2	2	NR	4	NI	0	0	(1)	1	1		NI	S	1
	2371	RTECS No						CAS No:								
Ditridecyl adipate	2351	0	NI	0	NR	0	NI	0	0	(2)	2	1	S	NI	Fp	2
	293	RTECS No						CAS No:			16958-92-2					
Ditridecyl phthalate	714	0	2	2	NR	0	(0)	0	0	(1)	1	(1)		0	Fp	2
	2994	RTECS No TI1950000						CAS No:			119-06-2					
Diundecyl phthalate	715	0	NI	0	NR	0	0	0	0	(1)	1	1		NI	Fp	3
	294	RTECS No TI1980000						CAS No:			3648-20-2					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dodecane (all isomers)	718	5	NI	5	(R)	0	NI	0	0	(1)	(1)	(0)		NI	Fp	2
	295	RTECS No JR2125000					CAS No:							112-40-3		
tert-Dodecanethiol	2233	5	NI	5	NR	4	2	0	0	(2)	2	1	S	NI	F	3
	2418	RTECS No					CAS No:							25103-58-6		
Dodecanoic acid	2257	NI	NI		NI	NI	NI	0	(0)	(2)	1	2		NI	Fp	2
	2776	RTECS No					CAS No:									
Dodecene (all isomers)	720	5	NI	5	NR	4	NI	0	0	(2)	2	1	A	NI	F	3
	296	RTECS No UD1950000					CAS No:							6842-15-5		
Dodecenylsuccinic acid, dipotassium salt solution	727	4	NI	4	NR	1	NI	(0)	(0)	NI	NI	NI		NI	D	NI
	297	RTECS No					CAS No:							57195-28-5		
Dodecyl alcohol	719	5	2	2	R	4	1	0	0	(1)	1	(1)		NI	Fp	2
	298	RTECS No JR5775000					CAS No:							112-53-8		
Dodecylamine/Tetradecylamine mixture	721	3	NI	3	R	4	NI	1	0	(3)	3	3		NI	F	3
	303	RTECS No					CAS No:									
Dodecylbenzene	126	0	NI	0	NR	0	3	0	0	(2)	(2)	(1)		NI	F	2
	304	RTECS No CZ9540000					CAS No:							123-01-3		
Dodecyldimethylamine/Tetradecyldimethylaminemixture	1489	NI	NI		NI	NI	NI	1	0	NI	NI	NI		NI	NI	1
	305	RTECS No					CAS No:									
Dodecyl diphenyl ether disulphonate solution	723	(5)	NI	5	NR	4	1	1	0	(3)	1	3		NI	D	3
	299	RTECS No JR8050000					CAS No:							119345-04-9		
Dodecyl hydroxypropyl sulphide	1861	5	NI	5	NI	4	NI	0	0	(0)	0	0		NI	FD	0
	2252	RTECS No					CAS No:									
Dodecyl methacrylate	893	5	NI	5	NR	0	NI	0	(0)	(1)	1	1		NI	F	1
	300	RTECS No OZ4300000					CAS No:							142-90-5		
Dodecyl/Octadecyl methacrylate mixture	2116	(5)	NI	(5)	(NR)	(0)	NI	0	0	(1)	1	(1)		NI	Fp	2
	1717	RTECS No					CAS No:									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dodecyl/Pentadecyl methacrylate mixture	724 302	(5)	NI	(5)	(NR)	(0)	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2
			RTECS No					CAS No:								
Dodecyl phenol	725 301	0	4	4	NI	4	NI	0	0	(3)	3	2		NI	Fp	3
			RTECS No	SL3675000				CAS No:						27193-86-8		
Dodecyl Xylene	1763 306	0	NI	0	NI	0	NI	0	0	(1)	1	1		NI	Fp	2
			RTECS No					CAS No:								
Drilling brines (containing zinc salts)	1425 307	Inor	4	4	Inorg	4	1	(1)	(1)	(3)	(3)	(3)		NI	D	3
			RTECS No	ZH1400000				CAS No:						7646-85-7		
Drilling brines, including:calcium bromide solution, calcium chloride solution and sodium chloride solution	427 308	Inor	0	0	Inorg	1	0	(0)	(0)	(2)	(1)	(2)		NI	D	2
			RTECS No	EV9328000				CAS No:						7789-41-5		
Epichlorohydrin	731 309	0	NI	0	R	3	1	2	2	3	3a	3	CS	NI	D	3
			RTECS No	TX4900000				CAS No:						106-89-8		
Ethanolamine	733 311	0	NI	0	R	2	0	1	1	3	3a	3		NI	D	3
			RTECS No	KJ5775000				CAS No:						141-45-5		
2-Ethoxyethanol	766 40	0	NI	0	R	0	0	0	0	1	2	2	R	NI	NI	3
			RTECS No	KK8050000				CAS No:						110-80-5		
2-Ethoxyethyl acetate	767 41	0	NI	0	R	2	0	1	0	1	1	2	R	NI	D	3
			RTECS No	KK8225000				CAS No:						111-15-9		
Ethoxylated long chain (C16+) alkyloxyalkylamine	2103 2203	5	NI	5	NR	1	NI	0	0	(3)	3	(3)		NI	Fp	3
			RTECS No					CAS No:								
Ethoxylated tallow amine (> 95%)	2313 2959	0	NI	0	NR	4	NI	1	(1)	3	2	3	S	NI	D	3
			RTECS No					CAS No:						61791-26-2		
Ethoxylated tallow amine, glycol mixture	2252 2476	2	NI	2	NR	6	NI	1	0	3	2	3	S	NI	D	3
			RTECS No					CAS No:								
Ethyl acetate	735 312	0	2	2	R	1	0	0	0	1	0	1		NI	DE	2
			RTECS No	AH5425000				CAS No:						141-78-6		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Ethyl acetoacetate	736	0	0	0	R	1	NI	0	0	(1)	1	1		NI	D	1	
	313	RTECS No AK5250000						CAS No:							141-97-9		
Ethyl acrylate	734	1	NI	1	R	3	1	1	2	2	2	2	SC	T	ED	3	
	314	RTECS No AT0700000						CAS No:							140-88-5		
Ethyl alcohol	732	0	NI	0	R	0	NI	0	0	0	1	2		NI	D	2	
	315	RTECS No KQ6300000						CAS No:							64-17-5		
Ethylamine	1016	0	NI	0	R	2	NI	2	2	1	3	3		NI	GD	3	
	322	RTECS No KH2100000						CAS No:							75-04-7		
Ethylamine solutions (72% or less)	2219	NI	NI	0	R	2	NI	2	2	1	3	3		NI	DE	3	
	323	RTECS No						CAS No:							75-04-7		
Ethyl amyl ketone	1784	2	NI	2	NI	2	NI	0	0	(2)	2	NI		NI	FD	2	
	316	RTECS No RH1485000						CAS No:							106-68-3		
Ethylbenzene	740	3	2	2	R	3	1	0	0	0	2	2	C	NI	FE	3	
	324	RTECS No DA070000						CAS No:							100-41-4		
N-Ethylbutylamine	745	1	NI	1	NI	NI	NI	1	1	2	3	3		NI	FED	3	
	477	RTECS No EO4880000						CAS No:							13360-63-9		
Ethyl tert-butyl ether	2085	1	NI	1	NI	2	NI	0	0	2	2	2		NI	E	2	
	320	RTECS No KN4730200						CAS No:							637-92-3		
Ethyl butyrate	748	1	NI	1	NI	2	NI	0	0	(2)	2	NI		NI	FED	2	
	317	RTECS No ET1660000						CAS No:							105-54-4		
Ethylcyclohexane	751	4	4	4	NR	3	NI	(0)	(0)	(1)	(0)	(1)		NI	FE	2	
	325	RTECS No GV1140000						CAS No:							1678-91-7		
N-Ethylcyclohexylamine	752	2	NI	2	NI	(3)	NI	1	2	2	3	3		NI	FED	3	
	478	RTECS No GX1225000						CAS No:							5459-93-8		
S-Ethyl dipropylthiocarbamate	2081	3	2	2	NI	3	NI	1	1	2	2	(2)	N	NI	F	3	
	2302	RTECS No						CAS No:							759-94-4		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ethylene carbonate	755	0	NI	0	R	0	NI	0	0	(2)	1	2		NI	SD	2
	326	RTECS No FF9550000			CAS No:			96-49-1								
Ethylene chlorohydrin	756	0	0	0	R	3	NI	2	3	4	2	3		NI	D	3
	327	RTECS No KK0875000			CAS No:			107-07-3								
Ethylene cyanohydrin	757	0	0	0	NI	2	NI	1	0	(2)	1	2		NI	D	2
	328	RTECS No MU5250000			CAS No:			109-78-4								
Ethylenediamine	758	0	1	1	R	3	1	1	2	1	3	3	S	NI	D	3
	343	RTECS No KH8575000			CAS No:			107-15-3								
Ethylenediaminetetraacetic acid, tetrasodium salt solution	759	0	NI	0	NR	2	0	1	(1)	(2)	1	2		NI	D	2
	344	RTECS No AH4375000			CAS No:			139-33-3								
Ethylene dibromide	760	1	2	2	NR	3	NI	2	2	2	3	3	CRT	NI	SD	3
	329	RTECS No KH9275000			CAS No:			106-93-4								
Ethylene dichloride	591	1	1	1	NR	2	0	1	0	2	1	2	C	NI	SD	3
	330	RTECS No KI0525000			CAS No:			107-06-2								
Ethylene glycol	761	0	NI	0	R	0	0	1	(1)	(1)	0	0	R	NI	D	3
	331	RTECS No KW2975000			CAS No:			107-21-1								
Ethylene glycol acetate	762	0	NI	0	R	2	NI	0	0	(3)	NI	(3)	R	NI	D	3
	333	RTECS No KW7175000			CAS No:			542-59-6								
Ethylene glycol butyl ether acetate	764	1	NI	1	R	2	NI	0	1	(1)	1	1		NI	FD	1
	334	RTECS No KJ8925000			CAS No:			112-07-2								
Ethylene glycol diacetate	765	0	NI	0	NI	2	NI	0	0	(1)	1	NI		NI	D	1
	335	RTECS No KW4025000			CAS No:			111-55-7								
Ethylene glycol methyl butyl ether	772	1	NI	1	NI	1	NI	NI	NI	NI	NI	NI		NI	D	NI
	336	RTECS No			CAS No:			13343-98-1								
Ethylene glycol methyl ether acetate	773	0	NI	0	R	2	NI	1	0	(2)	NI	1	R	NI	D	3
	337	RTECS No KL5950000			CAS No:			110-49-6								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ethylene glycol monoalkyl ethers	2268	0	NI	0	R	2	NI	1	2	2	1	2		NI	D	2
	338	RTECS No						CAS No:			111-76-2					
Ethylene glycol phenyl ether	775	1	NI	1	R	1	0	1	0	(2)	1	2		NI	SD	2
	339	RTECS No			KM0350000			CAS No:			122-99-6					
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture	1740	NI	NI	1	R	1	NI	1	0	(2)	(2)	(2)		NI	SD	2
	340	RTECS No						CAS No:								
Ethylene oxide	77	NI	NI		NI	NI	NI	1	(1)	3	3	3	CMRS	NI	GD	3
	2744	RTECS No			KX2450000			CAS No:								
Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% by mass	78	0	NI	0	R	1	NI	1	1	3	3	3	CMR	NI	DE	3
	341	RTECS No						CAS No:								
Ethylene-vinyl acetate copolymer (emulsion)	779	0	1	1	NR	0	0	0	(0)	(2)	2	0		NI	S	NI
	342	RTECS No						CAS No:								
Ethyl-3-ethoxypropionate	1439	1	NI	1	NR	2	NI	0	0	2	1	1		NI	FD	2
	321	RTECS No			UF3325000			CAS No:			763-69-9					
2-Ethylhexanoic acid	776	2	NI	2	R	2	NI	0	0	(2)	2	2	R	NI	FD	3
	45	RTECS No			MO7700000			CAS No:			149-57-5					
2-Ethylhexyl acrylate	782	3	NI	3	R	2	NI	0	0	(2)	2	2	S	NI	F	3
	46	RTECS No			AT0855000			CAS No:			103-11-7					
2-Ethylhexylamine	1081	2	NI	2	NI	3	NI	1	1	3	3	3		NI	FD	3
	48	RTECS No			MQ5250000			CAS No:			104-75-6					
2-Ethylhexyl esters of fatty acids	2221	0	NI	0	R	1	NI	0	(0)	(0)	1	0		NI	F	1
	2578	RTECS No						CAS No:								
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester	2054	0	NI	0	R	0	NI	0	(0)	(0)	0	(0)		NI	Fp	2
	42	RTECS No						CAS No:								
Ethylidene norbornene	783	3	3	3	NR	3	0	0	0	2	1	2		NI	FE	2
	345	RTECS No			RB9450000			CAS No:			16219-75-3					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ethyl isoamyl ketone	737 2618	NI	NI		NI	NI	NI	0	0	(1)	1	(2)		NI	FD	2
		RTECS No MJ7350000					CAS No:									
Ethyl methacrylate	785 318	1	NI	1	R	2	NI	0	0	0	(2)	(2)	S	NI	FE	2
		RTECS No OZ4550000					CAS No:					97-63-2				
N-Ethylmethylallylamine	2228 2417	0	NI	0	NR	2	NI	3	2	2	3A	3		NI	D	3
		RTECS No					CAS No:					18328-90-0				
o-Ethylphenol	788 535	2	NI	2	NI	(2)	NI	1	NI	NI	NI	NI		NI	S	NI
		RTECS No SL4025000					CAS No:					90-00-6				
Ethyl propionate	790 319	1	NI	1	NI	2	0	0	(1)	(2)	2	2		NI	ED	2
		RTECS No UF3675000					CAS No:					105-37-3				
2-Ethyl-3-propylacrolein	791 43	2	NI	2	R	3	NI	0	0	1	3	3		NI	FE	3
		RTECS No MP6300000					CAS No:					645-62-5				
Ethyl toluene	2297 346	3	NI	3	NI	(3)	NI	0	0	0	2	2		NI	F	2
		RTECS No					CAS No:					622-96-8				
Fatty acid (saturated C13+)	1298 347	5	NI	0	R	0	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2
		RTECS No QH4375000					CAS No:					544-63-8				
Fatty acid (C8-C16) ethyl hexyl esters	2253 2759	0	NI	0	R	1	NI	0	0	(1)	1	0		NI	Fp	2
		RTECS No					CAS No:									
Fatty acid methyl esters (m)	2362 3125	0	NI	0	R	2	NI	0	(0)	(2)	2	2		NI	Fp	2
		RTECS No					CAS No:									
Fatty acid methyl esters C14+	2354 3114	0	NI	0	R	2	NI	0	(0)	(2)	2	2		NI	Fp	2
		RTECS No					CAS No:									
Fatty acid methyl esters derived from palm, soyabean and rapeseed oils		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	3150	RTECS No					CAS No:									
Fatty acids, (C16+)	2259 2778	0	0	0	R	(0)	NI	0	0	(0)	0	0		NI	Fp	2
		RTECS No					CAS No:									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Fatty acids, (C8-C18)	2260 2779	(4)	NI	(4)	R	(4)	(1)	(0)	(0)	(1)	(1)	(1)		NI	Fp	3
			RTECS No					CAS No:								
Fatty acids, 12+	2261 2780	5	0	0	(R)	0	NI	(0)	(0)	(1)	(1)	(1)		NI	NI	2
			RTECS No					CAS No:								
Fatty acids, C8-C10	2324 3079	0	NI	0	R	4	NI	0	0	(3)	3C	3		NI	NI	NI
			RTECS No					CAS No:						68937-75-7		
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester.	2253 1914	0	NI	0	R	1	NI	0	0	(1)	1	0		NI	Fp	2
			RTECS No					CAS No:								
Fatty alcohols, (C8-C10)	2325 3080	NI	NI		NI	NI	NI	(0)	(0)	(2)	(2)	(2)		NI	NI	NI
			RTECS No					CAS No:								
Ferric chloride solutions	339 348	Inor	5	5	Inorg	2	0	1	(0)	(3)	2	3		NI	D	3
			RTECS No		LJ9100000			CAS No:						7705-08-0		
Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution	796 349	NI	NI	NI	NI	NI	NI	0	0	(1)	(0)	1		NI	D	1
			RTECS No					CAS No:								
Ferric nitrate/Nitric acid solution	337 350	Inor	5	5	Inorg	2	0	0	(0)	(3)	3	3		NI	D	3
			RTECS No					CAS No:								
Fish oil	2316 3046	0	NI	0	R	2	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
			RTECS No					CAS No:								
Fish oil	801 2774	0	NI	0	R	2	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
			RTECS No		LK5150000			CAS No:						8016-13-5		
Fish solubles (water-based fish meal extract)	1509 351	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	(0)	(0)		NI	NI	NI
			RTECS No					CAS No:								
Fluorosilicic acid	806 2716	Inor	0	0	Inorg	2	NI	2	(2)	4	3	3		NI	D	3
			RTECS No		VV8225000			CAS No:								
Fluorosilicic acid (20-30%) in water solution	2240 353	Inor	0	0	Inorg	2	NI	(1)	(1)	4	3	3		NI	D	3
			RTECS No					CAS No:						16961-83-4		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Formaldehyde, polymer with isobutylenated phenol.	2377 1203	NI	NI	NI	NR	NI	NI	NI	NI	NI	NI	NI	NI	NI	Fp	NI
		RTECS No						CAS No:			68610-07-1					
Formaldehyde solutions (45% or less)	807 354	0	NI	0	R	2	NI	2	2	3	3	3	CSM	NT	D	3
		RTECS No			LP8925000			CAS No:			50-00-0					
Formamide	808 355	0	NI	0	NR	1	NI	0	0	1	1	2	R	NI	D	3
		RTECS No			LQ0525000			CAS No:			75-12-7					
Formic acid	809 356	0	NI	0	R	2	NI	1	(1)	2	3C	3		NI	D	3
		RTECS No			LQ4900000			CAS No:			64-18-6					
Fumaric adduct of rosin, water dispersion	810 357	0	NI	0	R	3	NI	(0)	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Furfural	812 358	0	NI	0	R	2	NI	2	(2)	3	2	2	C	NI	D	3
		RTECS No			LT7000000			CAS No:			98-01-1					
Furfuryl alcohol	813 359	0	NI	0	R	(3)	NI	2	2	3	2	2		NI	D	2
		RTECS No			LU9100000			CAS No:			98-00-0					
Glucitol/glycerol blend propoxylated (containing less than 10% amines)	2368 3074	0	NI	0	NR	1	NI	1	0	(2)	(1)	(1)		NI	SD	2
		RTECS No						CAS No:								
Glucose solution	562 361	0	0	0	R	0	NI	0	0	0	0	(0)		NI	D	0
		RTECS No			LZ6600000			CAS No:			50-99-7					
Glutaraldehyde solutions (50% or less)	1107 362	0	NI	0	R	3	0	1	0	4	3	3	S	NI	D	3
		RTECS No			MA2450000			CAS No:			111-30-8					
Glycerine	814 363	0	NI	0	R	0	NI	0	0	(1)	0	1		NI	D	1
		RTECS No			MA8050000			CAS No:			56-81-5					
Glycerine (83%), Dioxanedimethanol (17%) mixture	1743 364	NI	NI	NI	R	1	NI	0	(0)	(1)	(0)	1		NI	D	1
		RTECS No						CAS No:								
Glycerol ethoxylated	2360 3123	0	NI	0	R	0	NI	0	0	(0)	0	0		NI	D	0
		RTECS No						CAS No:			31694-55-0					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Glycerol monooleate	1898 365	0	0	0	R	0	NI	0	(0)	(1)	1	1		NI	Fp	2
		RTECS No RK1300000						CAS No:			25496-72-4					
Glycerol polyalkoxylate	815 366	NI	NI		NI	NI	NI	1	0	(2)	1	(0)		NI	NI	NI
		RTECS No						CAS No:								
Glycerol propoxylated	2346 3110	0	NI	0	NR	1	NI	1	0	(2)	1	0		NI	D	2
		RTECS No						CAS No:			25791-96-2					
Glycerol, propoxylated and ethoxylated	2276 2872	0	NI	0	NR	1	0	0	0	0	0	0		NI	SD	2
		RTECS No						CAS No:			9082-00-2					
Glycerol, propoxylated, mwt > 1000	2275 2871	NI	(0)	(0)	NR	1	NI	1	0	(2)	1	(0)		NI	NI	2
		RTECS No						CAS No:			25791-96-2					
Glycerol propoxylated mwt <1000	2282 2888	(4)	NI	(4)	(NR)	NI	NI	1	0	(2)	1	(0)		NI	NI	2
		RTECS No						CAS No:			25791-96-2					
Glycerol/sorbitol blend, propoxylated and ethoxylated	2372 3136	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Glycerol/sucrose blend propoxylated and ethoxylated	2361 3124	0	NI	0	NR	1	NI	0	0	0	0	0		NI	SD	0
		RTECS No						CAS No:								
Glyceryl triacetate	816 367	0	NI	0	R	1	0	1	0	0	0	1		NI	D	1
		RTECS No AK3675000						CAS No:			102-76-1					
Glycidyl ester of C10 trialkylacetic acid	441 368	3	NI	3	NR	3	NI	0	0	(2)	2	1		NI	F	2
		RTECS No						CAS No:			26761-45-5					
Glycine, sodium salt solution	817 369	0	NI	0	NI	0	NI	0	(0)	(1)	(0)	(1)		NI	D	1
		RTECS No MB7600000						CAS No:			6000-44-8					
Glycolic acid solution (70% or less)	2218 2539	0	0	0	R	1	NI	1	(1)	2	3C	3		NI	D	3
		RTECS No						CAS No:			79-14-1					
Glyoxal solution (40% or less)	84 370	0	NI	0	R	1	NI	0	0	2	2	3	MS	NI	D	3
		RTECS No MD2700000						CAS No:			107-22-2					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Glyoxylic acid solution (50 % or less)	1535 371	0	NI	0	R	2	0	0	0	(3)	0	3	S	NI	D	3	
			RTECS No			MD4550000		CAS No:								298-12-4	
Glyphosate solution (not containing surfactant)	1765 2204	0	0	0	NR	3	0	0	0	(3)	0	3		NI	D	3	
			RTECS No			MC1075000		CAS No:									38641-94-0
Groundnut oil	820 2769	0	NI	0	R	(2)	NI	(0)	(0)	(0)	(0)	0		NI	Fp	2	
			RTECS No			RX2830000		CAS No:									8002-03-7
Heptane (all isomers)	827 372	4	NI	4	R	4	NI	0	0	0	(1)	1	A	NI	E	2	
			RTECS No			MI7700000		CAS No:									142-82-5
n-Heptanoic acid	831 479	2	NI	2	R	1	NI	0	0	(3)	3B	(3)		NI	FD	3	
			RTECS No			MJ1575000		CAS No:									111-14-8
1-Heptanol	828 2688	2	NI	2	R	2	NI	1	0	2	(2)	(2)		NI	FD	(2)	
			RTECS No			MK0350000		CAS No:									111-70-6
Heptanol (all isomers) (d)	2223 373	2	NI	2	R	(2)	NI	0	0	(2)	(1)	(2)		NI	FD	2	
			RTECS No					CAS No:									111-70-6
Heptene (all isomers)	2225 374	3	NI	3	NI	2	NI	(0)	(0)	(2)	(2)	(0)		NI	E	2	
			RTECS No					CAS No:									
1-Heptene	832 2685	3	NI	3	NI	2	NI	(0)	(0)	(2)	(2)	(0)		NI	E	2	
			RTECS No			MJ8815000		CAS No:									592-76-7
Heptyl acetate	833 375	3	NI	3	NI	(3)	NI	0	0	(2)	1	2		NI	F	2	
			RTECS No			AH9901000		CAS No:									112-06-1
1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture	2159 2373	0	NI	0	NR	0	NI	0	0	(1)	1	1		NI	Fp	2	
			RTECS No					CAS No:									
Hexamethylenediamine	845 377	0	NI	0	R	2	NI	1	1	(3)	3A	3	SR	NI	D	3	
			RTECS No			MO1180000		CAS No:									
Hexamethylenediamine adipate (50% in water)	846 379	0	NI	0	R	1	NI	0	(0)	(0)	0	0		NI	D	0	
			RTECS No			AV1940000		CAS No:									3323-53-3

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Hexamethylenediamine (molten)	845 378	0	NI	0	R	2	NI	1	1	(3)	3A	3	SR	NI	D	3
			RTECS No													MO1180000
																CAS No:
																124-09-4
Hexamethylenediamine solution	845 380	0	NI	0	R	2	NI	1	1	(3)	3A	3	SR	NI	D	3
			RTECS No													MO1180000
																CAS No:
																124-09-4
Hexamethylene diisocyanate	2142 18	3	0	0	NR	2	NI	1	2	4	3	3	S	NI	S	3
			RTECS No													CAS No:
																822-06-0
Hexamethylene glycol	847 376	0	NI	0	R	1	NI	0	0	(1)	0	1		NI	D	1
			RTECS No													MO2100000
																CAS No:
																629-11-8
Hexamethyleneimine	848 381	1	NI	1	NI	2	NI	3	1	2	NI	NI		NI	FED	2
			RTECS No													CM3150000
																CAS No:
																111-49-9
Hexamethylenetetramine solutions	849 382	0	NI	0	R	0	NI	0	0	(1)	0	1	S	NI	D	2
			RTECS No													MN4725000
																CAS No:
																100-97-0
Hexane	850 2683	3	NI	3	R	4	NI	0	0	0	2	2	NA	NI	E	2
			RTECS No													MN9275000
																CAS No:
																110-54-3
Hexane (all isomers)	850 383	3	NI	3	R	4	NI	0	0	0	2	2	NA	NI	E	2
			RTECS No													MN9275000
																CAS No:
																110-54-3
1,6-Hexanediol, distillation overheads	2143 2641	4	NI	4	NR	2	NI	0	0	2	1	2		NI	FED	2
			RTECS No													CAS No:
																68937-28-0
Hexanoic acid	853 384	2	NI	2	R	2	NI	0	0	(3)	(3)	3		NI	FD	3
			RTECS No													MO5250000
																CAS No:
																142-62-1
Hexanol	854 385	1	0	0	(R)	2	NI	1	0	(3)	1	3		NI	FD	3
			RTECS No													MQ4025000
																CAS No:
																111-27-3
Hexene (all isomers)	2224 386	3	NI	3	R	3	NI	(0)	(0)	(1)	(1)	(1)		NI	E	2
			RTECS No													CAS No:
																592-41-6
1-Hexene	855 2681	3	NI	3	R	3	NI	0	0	0	1	1		NI	E	2
			RTECS No													MP6600100
																CAS No:
																592-41-6

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2-Hexene (mixed isomers)	856	3	NI	3	R	3	NI	(0)	(0)	(1)	(1)	(1)		NI	E	2
	2682	RTECS No						CAS No:						592-43-8		
Hexyl acetate	857	2	NI	2	NI	3	NI	0	0	(1)	1	1		NI	FE	2
	387	RTECS No			AI0875000			CAS No:						142-92-7		
Hexylene glycol	859	0	NI	0	R	0	0	0	0	(2)	2	2		NI	D	2
	388	RTECS No			SA0810000			CAS No:						107-41-5		
Hydrocarbon waxes	2278	0	NI	0	NR	0	0	0	0	2	1	1		NI	Fp	2
	2886	RTECS No						CAS No:								
Hydrochloric acid	864	Inor	0	0	Inorg	1	NI	1	1	3	3C	3		NI	DE	3
	389	RTECS No			MW4025000			CAS No:						7647-01-0		
Hydrogenated starch hydrolysate	2347	0	NI	0	R	0	NI	0	0	(0)	0	0		NI	D	0
	3077	RTECS No						CAS No:						68425-17-2		
Hydrogen peroxide, more than 60%	867	Inor	0	0	Inorg	3	NI	1	0	2	3	3		NI	D	3
	2689	RTECS No			MX0900000			CAS No:						7722-84-1		
Hydrogen peroxide, more than 8% but not more than 60%	2231	Inor	0	0	Inorg	3	NI	1	0	(2)	3	3		NI	D	3
	2690	RTECS No						CAS No:						7722-84-1		
Hydrogen peroxide solutions (over 60% but not over 70% by mass)	867	Inor	0	0	Inorg	3	NI	1	0	2	3	3		NI	D	3
	390	RTECS No			MX0900000			CAS No:						7722-84-1		
Hydrogen peroxide solutions (over 8% but not over 60% by mass)	2231	Inor	0	0	Inorg	3	NI	1	0	(2)	3	3		NI	D	3
	391	RTECS No						CAS No:						7722-84-1		
2-Hydroxyethyl acrylate	869	0	NI	0	R	4	NI	1	3	3	3	3	SM	NI	D	3
	51	RTECS No			AT1750000			CAS No:						818-61-1		
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	870	0	NI	0	NI	1	NI	0	0	(1)	1	1	R	NI	D	3
	470	RTECS No			MB9185000			CAS No:						139-89-9		
2-Hydroxy-4-(methylthio)butanoic acid	871	1	NI	1	R	1	NI	0	0	(3)	1	3		NI	D	3
	49	RTECS No			ET4761500			CAS No:						583-91-5		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2-Hydroxy-4-(methylthio) butanoic acid, methionone hydroxy analogue	3016	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Icosa(oxypropane-2,3-diyl)s	2092	NI	NI	NI	NI	NI	NI	0	(0)	(2)	2	(2)		NI	Fp	2
	392	RTECS No						CAS No:								
Icosa(oxypropane-2,3-diyl)s	2092	NI	NI	NI	NI	NI	NI	0	(0)	(2)	2	(2)		NI	Fp	2
	2691	RTECS No						CAS No:								
Illipe oil	2304	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	(0)	(0)		NI	Fp	2
	3034	RTECS No						CAS No:								
Interesterified mixed vegetable oils	2355	0	NI	0	R	NI	NI	(0)	(0)	(1)	(1)	(1)		NI	Fp	2
	3115	RTECS No						CAS No:								
Isoamyl alcohol	965	1	1	1	(R)	1	0	1	0	(2)	2	2		NI	FED	2
	396	RTECS No			EL5425000			CAS No:			123-51-3					
Iso- and cyclo-alkanes (C10-C11)	2203	(5)	NI	(5)	NI	(0)	(0)	(0)	(0)	(1)	(1)	(0)		NI	F	1
	393	RTECS No						CAS No:								
Iso- and cyclo-alkanes (C12+)	2204	(5)	NI	(5)	NI	(0)	NI	0	0	(1)	NI	NI		NI	NI	1
	394	RTECS No						CAS No:			112-40-3					
Isobutyl alcohol	382	0	NI	0	R	1	0	0	0	1	2	3		NI	D	3
	397	RTECS No			NP9625000			CAS No:			78-83-1					
Isobutyl formate	405	1	NI	1	NI	1	NI	0	(0)	0	(1)	(2)		NI	E	2
	398	RTECS No			LQ8650000			CAS No:			542-55-2					
Isobutyl methacrylate	408	2	NI	2	NR	1	NI	0	0	0	2	2	S	NI	FED	2
	2673	RTECS No			OZ4900000			CAS No:								
Isobutyric acid	419	0	NI	0	R	2	NI	2	2	(3)	3	3		NI	E	NI
	2459	RTECS No			NQ4375000			CAS No:			79-31-2					
Isononylaldehyde	2300	3	NI	3	NR	(3)	NI	0	0	(2)	2	1		NI	F	2
	2754	RTECS No						CAS No:			5435-64-3					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Isophorone	879	1	1	1	R	2	0	1	1	(2)	1	2		NI	FD	2
	399	RTECS No GW7700000			CAS No:			78-59-1								
Isophoronediamine	880	0	0	0	NR	2	0	1	(1)	(3)	3	3	S	NI	D	3
	401	RTECS No GV6129000			CAS No:			2855-13-2								
Isophorone diisocyanate	881	1	NI	1	NR	4	NI	0	0	4	3	3	SA	NI	S	3
	400	RTECS No NQ9370000			CAS No:			4098-71-9								
Isoprene	882	2	2	2	NR	2	NI	0	0	0	1	2	CM	NI	E	3
	402	RTECS No NT4037000			CAS No:			78-79-5								
Isopropanolamine	1182	0	NI	0	R	2	NI	0	1	0	3	3		NI	D	3
	403	RTECS No UA5775000			CAS No:			78-96-6								
Isopropyl acetate	1192	1	NI	1	R	1	NI	0	0	0	1	2		NI	ED	2
	404	RTECS No AI4930000			CAS No:			108-21-4								
Isopropyl alcohol	1181	0	NI	0	R	0	0	0	0	0	1	2		NI	D	2
	405	RTECS No NT8050000			CAS No:			67-63-0								
Isopropylamine	1195	0	NI	0	R	2	NI	2	2	1	3	3		0	DE	3
	407	RTECS No NT8400000			CAS No:			75-31-0								
Isopropylamine (70% or less) solution	2350	0	NI	0	R	2	NI	2	2	1	3	3		NI	DE	3
	395	RTECS No			CAS No:			75-31-0								
Isopropylbenzene	1197	3	2	2	R	3	NI	0	0	0	2	1		NI	FE	2
	2687	RTECS No GR8575000			CAS No:			98-82-8								
Isopropylcyclohexane	1199	4	NI	4	(NR)	(3)	NI	(0)	(0)	(1)	(0)	(1)		NI	FE	2
	408	RTECS No			CAS No:			696-29-7								
Isopropyl ether	711	1	NI	1	NR	2	NI	0	0	0	1	1		NI	E	2
	406	RTECS No TZ5425000			CAS No:			108-20-3								
Kaolin slurry	883	Inor	NI	0	Inorg	0	NI	0	0	0	0	0		NI	S	0
	409	RTECS No GF1670500			CAS No:			1332-58-7								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Lactic acid	886	0	NI	0	R	1	NI	0	0	(3)	2	3		NI	D	3
	410	RTECS No OD2800000						CAS No:			50-21-5					
Lactonitrile solution (80% or less)	887	0	NI	0	R	4	NI	2	4	(4)	NI	NI		NI	D	3
	411	RTECS No OD8225000						CAS No:			78-97-7					
Lard	2317	0	NI	0	R	0	NI	0	(0)	(1)	0	1		NI	Fp	2
	3047	RTECS No						CAS No:								
Lard	888	0	NI	0	R	0	NI	0	(0)	(1)	0	1		NI	Fp	2
	412	RTECS No						CAS No:			61789-99-9					
Latex, ammonia (1% or less) inhibited	889	0	NI	0	R	(2)	NI	0	0	(1)	0	1		NI	D	1
	413	RTECS No						CAS No:								
Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber	1274	0	NI	0	NR	0	NI	0	0	(1)	0	1		NI	D	1
	414	RTECS No						CAS No:								
Lauric acid	891	4	NI	4	R	4	1	0	(0)	(2)	1	2		NI	Fp	2
	415	RTECS No OE9800000						CAS No:			143-07-7					
Lauryl polyglucose (50% or less)	2137	3	NI	3	R	3	0	0	0	(3)	2	3		NI	D	3
	416	RTECS No						CAS No:			110615-47-9					
Lecithin	2146	0	NI	0	R	0	NI	0	0	(0)	0	(0)		NI	SD	0
	417	RTECS No						CAS No:			8030-76-0					
Ligninsulphonic acid, sodium salt solution	34	0	NI	0	(NR)	(0)	NI	0	(0)	(0)	(0)	(0)		NI	D	0
	419	RTECS No						CAS No:			8061-51-6					
Linear alkyl (C12-C16) propoxyamine ethoxylate		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	3015	RTECS No						CAS No:								
Linseed oil	2318	0	NI	0	R	(2)	NI	0	(0)	(1)	0	(1)		NI	Fp	2
	3048	RTECS No						CAS No:								
Linseed oil	905	0	NI	0	R	(2)	NI	0	(0)	(1)	0	(1)		NI	Fp	2
	2767	RTECS No OI9690000						CAS No:			8001-26-1					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Liquid chemical wastes	420	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Long-chain alkaryl polyether (C11-C20)	1982	(4)	NI	(4)	NR	3	(1)	0	0	(2)	0	2		NI	Fp	2
	421	RTECS No						CAS No:			26401-47-8					
Long-chain alkaryl sulphonic acid (C16-C60)	1966	0	NI	0	(NR)	0	NI	0	0	(2)	(1)	2		NI	Fp	2
	424	RTECS No						CAS No:								
Long-chain alkylphenate/Phenol sulphide mixture	1754	(0)	NI	(0)	(NR)	0	NI	0	0	(2)	2	2	S	NI	Fp	3
	425	RTECS No						CAS No:								
Long-chain polyetheramine in alkyl (C2-C4) benzenes	1457	NI	NI	NI	NR	2	NI	0	0	(2)	2	2		NI	Fp	2
	422	RTECS No						CAS No:								
Long-chain polyetheramine in aromatic solvent	1457	NI	NI	NI	NR	2	NI	0	0	(2)	2	2		NI	Fp	2
	423	RTECS No						CAS No:								
L-Lysine solution (60% or less)	2199	0	0	0	R	1	0	0	0	0	1	NI		NI	D	1
	2306	RTECS No						CAS No:			56-87-1					
Magnesium chloride solution	915	Inor	0	0	Inorg	1	0	0	0	(0)	0	0		NI	D	0
	427	RTECS No			OM2800000			CAS No:			7786-30-3					
Magnesium hydroxide slurry	916	Inor	0	0	Inorg	0	NI	0	0	(1)	(0)	1		NI	S	1
	428	RTECS No			OM3570000			CAS No:			1309-42-8					
Magnesium lignosulphonate solutions	2356	(0)	NI	(0)	(NR)	(0)	NI	0	0	(0)	(0)	(0)		NI	D	0
	3116	RTECS No						CAS No:			8061-54-9					
Magnesium long-chain alkaryl sulphonate (C11-C50)	1967	0	NI	0	NR	0	NI	0	0	(2)	1	2	S	NI	Fp	3
	430	RTECS No						CAS No:			71786-47-5					
Magnesium long-chain alkyl salicylate (C11+)	71	(0)	NI	(0)	NR	(2)	NI	0	0	(1)	(1)	(1)	S	NI	S	2
	429	RTECS No						CAS No:								
Maize (corn) acid oil	2338	NI	NI		NI	NI	NI	(0)	(0)	(0)	(0)	(0)		NI	NI	NI
	3092	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Maleic anhydride	921	1	NI	1	R	2	0	1	2	(3)	3	3	S	NI	D	3	
	431	RTECS No ON3675000			CAS No:			108-31-6									
Maltitol solution	2270	(0)	(1)	(1)	(NR)	(2)	NI	1	1	2	0	1		NI	FED	2	
	3078	RTECS No			CAS No:			585-88-6									
Mango kernel oil	2305	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	(0)	(0)		NI	Fp	2	
	3035	RTECS No			CAS No:			167747-36-6									
Mercaptobenzothiazol, sodium salt solution	925	2	1	1	NR	4	2	0	0	(0)	0	0	S	NI	S	2	
	432	RTECS No DL6475000			CAS No:			149-30-4									
Mesityl oxide	946	1	NI	1	R	(1)	NI	1	0	2	2	2		NI	D	2	
	433	RTECS No SB4200000			CAS No:			141-79-7									
Metam sodium solution	202	0	NI	0	NR	5	NI	1	2	(2)	2	1	S	NI	D	2	
	434	RTECS No FC2100000			CAS No:			137-42-8									
Methacrylic acid - alkoxy poly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)	2288	NI	0	0	NR	1	NI	0	(0)	(1)	1	0		NI	D	1	
	2819	RTECS No			CAS No:												
Methacrylic acid	948	0	NI	0	R	2	0	1	2	2	3	3		NI	D	3	
	435	RTECS No OZ2975000			CAS No:			79-41-4									
Methacrylic resin in ethylene dichloride	2046	1	1	1	NR	2	0	(1)	(0)	(2)	(1)	(2)	C	NI	SD	3	
	436	RTECS No			CAS No:												
Methacrylonitrile	949	0	NI	0	R	2	0	3	2	4	1	1	S	NT	ED	3	
	437	RTECS No UD1400000			CAS No:			126-98-7									
3-Methoxy-1-butanol	952	0	NI	0	R	(1)	NI	0	0	(1)	0	1		NI	D	1	
	57	RTECS No			CAS No:			2517-43-3									
3-Methoxybutyl acetate	953	1	1	1	R	3	NI	0	(0)	(1)	1	1		NI	FED	1	
	58	RTECS No EL4725000			CAS No:			4435-53-4									
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide	113	2	2	2	NR	5	1	1	0	(2)	1	0	S	NI	S	2	
	469	RTECS No AN3430000			CAS No:			51218-45-2									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Methyl acetate	954	0	NI	0	R	1	NI	0	0	0	1	2		NI	DE	2	
	438	RTECS No AI9100000			CAS No:			79-20-9									
Methyl acetoacetate	335	0	NI	0	R	1	NI	0	0	(2)	1	2		NI	D	2	
	439	RTECS No AK5775000			CAS No:			105-45-3									
Methyl acrylate	955	0	NI	0	R	3	NI	1	1	2	2	3	MS	NI	D	3	
	440	RTECS No AT2800000			CAS No:			96-33-3									
Methyl alcohol	951	0	NI	0	R	0	0	3	(3)	(4)	2	2	T	NI	DE	3	
	441	RTECS No PC1400000			CAS No:			67-56-1									
Methylal, technical		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	
	2724	RTECS No			CAS No:												
Methylamine solutions (42% or less)	957	0	NI	0	R	2	NI	2	(2)	3	3	3	M	NT	DE	3	
	455	RTECS No PF6300000			CAS No:			74-89-5									
Methylamyl acetate	858	2	NI	2	NI	3	NI	0	0	0	1	(2)		NI	FED	2	
	456	RTECS No SA7525000			CAS No:			108-84-9									
Methylamyl alcohol	958	1	NI	1	R	1	NI	1	0	2	1	3		NI	FED	3	
	457	RTECS No SA7350000			CAS No:			108-11-2									
Methyl amyl ketone	959	1	NI	1	NI	1	NI	1	0	0	1	1		NI	FED	2	
	442	RTECS No MJ5075000			CAS No:			110-12-3									
N-Methylaniline	961	1	NI	1	(NR)	3	1	1	1	(2)	(1)	1		NI	FD	2	
	3107	RTECS No BY4550000			CAS No:			100-61-8									
Methylbutenol	967	0	NI	0	R	2	NI	1	0	(2)	2	2		NI	D	2	
	458	RTECS No EM9472500			CAS No:			556-82-1									
Methyl tert-butyl ether	969	1	NI	1	NR	1	0	0	0	0	2	1		T	ED	2	
	454	RTECS No KN5250000			CAS No:			1634-04-4									
Methyl butyl ketone	970	1	NI	1	R	1	0	0	0	0	1	1	RN	NI	FED	3	
	443	RTECS No MP1400000			CAS No:			591-78-6									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Methylbutynol	968	0	NI	0	NR	1	NI	1	1	3	0	2		NI	D	2
	459	RTECS No ES0810000						CAS No:			115-19-5					
Methyl butyrate	973	1	NI	1	NI	(2)	NI	0	0	2	2	(2)		NI	ED	2
	444	RTECS No ET5500000						CAS No:			623-42-7					
Methylcyclohexane	976	3	3	3	NR	3	1	0	0	1	1	1	A	NI	E	2
	460	RTECS No GV6125000						CAS No:			108-87-2					
Methylcyclopentadiene dimer	977	4	NI	4	(NR)	(3)	NI	0	(0)	(2)	(2)	(2)		NI	F	2
	461	RTECS No PC1075000						CAS No:			26472-00-4					
Methylcyclopentadienyl manganese tricarbonyl	2213	3	NI	3	NR	4	NI	2	3	4	1	1		NI	S	3
	2692	RTECS No						CAS No:			12108-13-3					
Methyl cyclopentadienyl manganese tricarbonyl (60-70%) in mineral oil		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	3055	RTECS No						CAS No:								
Methyl diethanolamine	1491	0	NI	0	R	2	NI	1	0	(2)	1	2		NI	D	2
	445	RTECS No KL7525000						CAS No:			105-59-9					
Methylene bithiocyanate	2235	2	NI	2	NR	5	NI	2	0	4	NI	NI	S	NI	NI	3
	2693	RTECS No						CAS No:			6317-18-6					
Methylene bridged isobutenylated phenols	2290	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	82	RTECS No						CAS No:								
2-Methyl-6-ethyl aniline	984	2	NI	2	NR	2	NI	1	1	(2)	0	2		NI	FD	2
	54	RTECS No BY5600000						CAS No:			24549-06-2					
Methyl ethyl ketone	385	0	NI	0	R	1	0	0	0	1	2	2		NI	DE	2
	446	RTECS No EL6475000						CAS No:			78-93-3					
2-Methyl-5-ethyl pyridine	986	2	NI	2	NI	2	NI	1	2	(3)	3	3		NI	FD	3
	53	RTECS No TJ6825000						CAS No:			104-90-5					
Methyl formate	987	0	NI	0	R	1	NI	1	0	2	0	2		NI	DE	2
	447	RTECS No LQ8925000						CAS No:			107-31-3					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
N-Methylglucamine solution (70% or less)	2048	0	NI	0	R	0	NI	1	0	(3)	0	3		NI	D	3
	482	RTECS No 000000000						CAS No:			6284-40-8					
2-Methyl Glutaronitrile		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	2908	RTECS No						CAS No:								
2-Methylglutaronitrile (Crude)		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	2929	RTECS No						CAS No:								
Methyl heptyl ketone	988	3	NI	3	R	3	NI	0	0	NI	NI	NI		NI	FED	NI
	448	RTECS No RA8225000						CAS No:			821-55-6					
2-Methyl-2-hydroxy-3-butyne	968	0	NI	0	NR	1	NI	1	1	3	0	2		NI	D	2
	52	RTECS No ES0810000						CAS No:			115-19-5					
Methyl isobutyl ketone	971	1	NI	1	R	1	0	1	0	2	2	3		NI	FED	3
	449	RTECS No SA9275000						CAS No:			108-10-1					
Methyl methacrylate	995	1	NI	1	R	2	NI	0	0	0	2	2	S	NI	ED	2
	450	RTECS No OZ5075000						CAS No:			80-62-6					
3-Methyl-3-methoxybutanol	996	1	NI	1	NR	0	NI	0	(0)	(2)	1	(2)		NI	FD	2
	59	RTECS No						CAS No:			56539-66-3					
3-Methyl-3-methoxybutyl acetate	997	1	NI	1	NR	0	NI	0	(0)	NI	NI	NI		NI	F	NI
	60	RTECS No						CAS No:								
Methyl naphthalene (molten)	1999	4	NI	4	(NR)	(4)	NI	1	0	(2)	1	1		T	F	2
	451	RTECS No						CAS No:								
2-Methylpentane	1000	3	NI	3	NI	4	NI	(0)	(0)	(2)	(2)	(2)		NI	E	2
	2684	RTECS No SA2995000						CAS No:			107-83-5					
2-Methyl-1,3-propanediol	2200	0	0	0	NR	0	0	0	0	(0)	0	0		NI	D	0
	2213	RTECS No						CAS No:			2163-42-0					
Methyl propyl ketone	1003	0	NI	0	R	0	NI	1	0	(2)	1	2		NI	FED	2
	452	RTECS No SA7875000						CAS No:			107-87-9					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
2-Methylpyridine	1005	1	NI	1	R	1	NI	1	2	1	3A	3		NI	D	3	
	55	RTECS No TJ4900000			CAS No:			109-06-8									
3-Methylpyridine	1006	1	NI	1	R	1	NI	1	2	2	3	3		NI	D	3	
	61	RTECS No TJ5000000			CAS No:			108-99-6									
4-Methylpyridine	1007	1	NI	1	R	1	NI	1	2	2	3	3		NI	D	3	
	63	RTECS No UT5425000			CAS No:			108-89-4									
N-Methyl-2-pyrrolidone	1008	0	NI	0	R	1	NI	0	0	2	1	2	R	NI	D	3	
	481	RTECS No UY5790000			CAS No:			872-50-4									
Methyl salicylate	86	2	NI	2	R	2	NI	1	1	1	2	1	R	NI	SD	3	
	453	RTECS No VO4725000			CAS No:			119-36-8									
alpha-Methylstyrene	1010	3	3	3	NR	3	NI	0	0	1	2	1	M	(T)	FE	3	
	107	RTECS No WL5075300			CAS No:			25013-15-4									
3-(methylthio)propionaldehyde	993	0	NI	0	R	3	1	1	1	2	2	3	NS	T	D	3	
	2368	RTECS No UE2285000			CAS No:			3268-49-3									
Microsilica slurry	1514	Inor	0	0	Inorg	0	0	(0)	(0)	NI	(0)	(0)		NI	S	0	
	2507	RTECS No			CAS No:			69012-64-2									
Molasses	1013	0	NI	0	R	0	NI	0	0	0	0	0		NI	D	0	
	462	RTECS No			CAS No:												
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	2344	4	2	2	NR	2	0	0	0	(2)	2	2		NI	Fp	2	
	3108	RTECS No			CAS No:												
Morpholine	1018	0	0	0	R	2	NI	1	2	2	3	3		NI	D	3	
	463	RTECS No QD6475000			CAS No:			110-91-8									
Motor fuel anti-knock compounds (containing lead alkyls)	1303	4	5	5	NR	5	NI	3	2	4	2	2	NR	NI	S	3	
	464	RTECS No TP4550000			CAS No:			78-00-2									
Myrcene	1019	4	NI	4	R	4	1	0	0	(2)	2	NI		NI	F	2	
	465	RTECS No RG5365000			CAS No:			123-35-3									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
[Nalco 5740S Antifoam]	2291	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	492	RTECS No					CAS No:									
Naphthalene (molten)	1	3	3	3	NR	4	1	1	0	(2)	1	1	C	T	S	3
	493	RTECS No QJ0525000					CAS No:					91-20-3				
Naphthalenesulphonic acid-Formaldehyde copolymer, sodium salt solution	1020	0	1	1	(NR)	1	NI	0	(0)	(1)	0	1		NI	D	1
	494	RTECS No EC4850000					CAS No:					9084-06-4				
Naphthenic acids	1021	NI	NI	NI	NI	3	NI	1	NI	NI	NI	NI		(T)	FD	NI
	495	RTECS No QK8750000					CAS No:					1338-24-5				
Neodecanoic acid	1025	4	NI	4	NR	2	NI	0	0	(2)	0	2		NI	Fp	2
	496	RTECS No					CAS No:					26896-20-8				
Nitrating acid (mixture of sulphuric and nitric acids)	289	Inor	NI	0	Inorg	(2)	NI	3	3	4	3C	3		NI	D	3
	497	RTECS No					CAS No:									
Nitric acid (70% and over)	1029	Inor	NI	0	Inorg	2	NI	(3)	(1)	4	3C	3		NI	D	3
	498	RTECS No QU5775000					CAS No:					7697-37-2				
Nitric acid (less than 70%)	1029	Inor	NI	0	Inorg	2	NI	(3)	(1)	4	3C	3		NI	D	3
	499	RTECS No QU5775000					CAS No:					7697-37-2				
Nitriiotriacetic acid, trisodium salt solution	1030	0	NI	0	R	1	0	1	(0)	0	1	1	CMR	NI	D	3
	500	RTECS No MB8400000					CAS No:					5064-31-3				
Nitrobenzene	1017	1	1	1	R	3	(4)	(2)	2	2	1	1	CRT	NI	SD	3
	501	RTECS No DA6475000					CAS No:					98-95-3				
Nitroethane	1037	0	NI	0	NR	2	NI	1	0	(2)	(0)	(1)		NI	SD	2
	502	RTECS No KI5600000					CAS No:					79-24-3				
Nitroethane(80%)/ Nitropropane(20%)	2245	0	1	1	NR	2	NI	1	1	2	0	1		NI	E	2
	503	RTECS No					CAS No:									
Nitroethane, 1-Nitropropane (each 15% or more) mixture	2270	(0)	(1)	(1)	(NR)	(2)	NI	1	1	2	0	1		NI	FED	2
	2212	RTECS No					CAS No:									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
o-Nitrophenol (molten)	1041 536	1	2	2	R	3	(2)	0	0	(1)	1	1		NI	S	1
		RTECS No			SM2100000			CAS No:			88-75-5					
1-Nitropropane	1044 2747	(0)	(1)	(1)	(NR)	(2)	NI	1	0	2	0	1		NI	FED	2
		RTECS No			TZ5075000			CAS No:			108-03-2					
1- or 2-Nitropropane	2242 20	0	1	1	NR	1	NI	2	0	2	0	1	C	NI	FED	3
		RTECS No						CAS No:			108-03-2					
2-Nitropropane	1045 2748	(0)	(1)	(1)	(NR)	(2)	NI	2	0	2	0	0	C	NI	FED	3
		RTECS No			TZ5250000			CAS No:								
Nitropropane (60%)/Nitroethane (40%) mixture	1046 504	0	1	1	NR	2	NI	1	0	2	0	1	C	NI	FED	3
		RTECS No						CAS No:								
o-Nitrotoluene	1049 2745	2	2	2	NR	2	(1)	1	0	(2)	0	1	CMR	NI	S	3
		RTECS No			XT3150000			CAS No:			88-72-2					
p-Nitrotoluene	1051 2746	2	1	1	NR	3	0	1	0	(2)	0	1	R	NI	S	3
		RTECS No			XT3325000			CAS No:			99-99-0					
o- or p-Nitrotoluenes	2241 532	2	2	2	NR	3	(1)	1	0	(2)	0	1	CMR	NI	S	3
		RTECS No						CAS No:			88-72-2					
Nonane (all isomers)	1054 506	4	NI	4	R	4	NI	0	0	1	0	0	A	NI	FE	2
		RTECS No			RA6115000			CAS No:			111-84-2					
Nonanoic acid (all isomers)	1055 507	3	NI	3	R	2	NI	0	0	(3)	2	3		NI	F	3
		RTECS No			RA6650000			CAS No:			112-05-0					
Non-edible industrial grade palm oil	2364 3127	0	NI	0	R	0	NI	0	0	(2)	(2)	(2)		NI	Fp	2
		RTECS No						CAS No:			8002-75-3					
Nonene (all isomers)	2222 508	4	NI	4	NI	3	NI	0	0	0	1	1	A	NI	FE	2
		RTECS No						CAS No:			27215-95-8					
1-Nonene	1060 2680	4	NI	4	NI	3	NI	0	0	0	1	1	A	NI	FE	2
		RTECS No						CAS No:			124-11-8					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Nonyl acetate	1766 509	4	NI	4	NI	NI	NI	0	0	NI	NI	NI		NI	F	NI
			RTECS No					CAS No:								143-13-5
Nonyl alcohol (all isomers)	1059 510	3	NI	3	NR	3	1	0	0	(2)	2	2		NI	Fp	2
			RTECS No		RH1400000			CAS No:								2430-22-0
Nonyl methacrylate monomer	1061 511	5	NI	5	R	3	NI	(0)	(0)	(1)	(1)	(1)		NI	F	1
			RTECS No					CAS No:								2696-43-7
Nonylphenol	1062 512	5	4	4	NR	5	3	1	0	(3)	3	3		NI	FD	3
			RTECS No		SM5600000			CAS No:								25154-52-3
Nonylphenol poly(4+)ethoxylate	1063 513	4	NI	4	NR	3	1	0	0	(2)	2	1		NI	D	2
			RTECS No					CAS No:								
Nonylphenol poly(4-12)ethoxylates	1063 514	4	NI	4	NR	3	1	0	0	(2)	2	1		NI	D	2
			RTECS No					CAS No:								
Octane (all isomers)	1072 538	5	NI	5	(R)	4	NI	(0)	(0)	0	0	0	A	NI	FE	2
			RTECS No		RG8400000			CAS No:								111-65-9
Octanoic acid (all isomers)	1074 539	3	NI	3	R	1	NI	0	0	(3)	3	3		NI	F	3
			RTECS No		RH0175000			CAS No:								124-07-2
Octanol (all isomers)	1075 540	3	NI	3	R	2	0	1	0	(2)	2	2		NI	Fp	2
			RTECS No		RH6550000			CAS No:								111-87-5
1-Octanol	1075 2676	3	NI	3	R	2	0	1	0	(2)	2	2		NI	Fp	2
			RTECS No		RH6550000			CAS No:								111-87-5
iso-Octanol	1076 2675	3	NI	3	R	2	0	1	0	(2)	2	(2)		NI	F	2
			RTECS No		NS7700000			CAS No:								26952-21-6
Octene (all isomers)	1079 541	4	NI	4	NR	3	NI	0	0	0	2	1	A	NI	FE	2
			RTECS No					CAS No:								
n-Octyl acetate	1080 483	3	NI	3	R	2	NI	0	0	(1)	1	NI		NI	FD	1
			RTECS No		AJ1400000			CAS No:								112-14-1

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Octyl aldehydes	1071	2	NI	2	NI	3	NI	0	0	(1)	1	1		NI	F	1
	542	RTECS No						CAS No:			63885-09-6					
Octyl decyl adipate	1082	0	NI	0	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(1)		NI	Fp	2
	543	RTECS No						CAS No:			110-29-2					
Olefin-Alkyl ester copolymer (molecular weight 2000+)	1965	NI	NI	0	NR	0	NI	0	0	(0)	0	0		NI	Fp	2
	546	RTECS No						CAS No:								
Olefin mixtures (C5-C7)	2243	3	NI	3	R	3	NI	(0)	(0)	(2)	(2)	(1)	A	NI	E	2
	545	RTECS No						CAS No:								
Olefin mixtures (C5-C15)	2321	(5)	NI	(5)	R	(4)	NI	(0)	(0)	(2)	(2)	(1)	A	NI	FE	2
	544	RTECS No						CAS No:			6842-15-5					
Olefins (C13+, all isomers)	2028	5	NI	5	NR	0	NI	0	0	(0)	0	0		NI	Fp	2
	547	RTECS No						CAS No:								
alpha-Olefins (C6-C18) mixtures	2030	(5)	NI	(5)	R	(4)	NI	(0)	(0)	(2)	(2)	(1)	A	NI	FE	2
	108	RTECS No						CAS No:			821-95-4					
Oleic acid	1089	0	NI	0	R	0	NI	0	1	(2)	1	1		NI	Fp	2
	548	RTECS No			RG2275000			CAS No:			112-80-1					
Oleum	1280	Inor	NI	Inorg	Inorg	2	NI	(3)	(3)	4	3C	3	C	NI	D	3
	549	RTECS No			WS5600000			CAS No:			7664-93-9					
Oleylamine	1862	0	NI	0	NR	4	NI	1	(1)	(3)	3B	3		NI	Fp	3
	550	RTECS No						CAS No:			112-90-3					
Olive oil	1090	0	NI	0	R	(2)	NI	(0)	(0)	(1)	1	1		NI	Fp	2
	2771	RTECS No			RK4300000			CAS No:			8001-25-0					
Orange juice (concentrated)	2375	0	0	0	R	0	0	0	0	(0)	0	0		NI	D	0
	3151	RTECS No						CAS No:								
Orange juice (not concentrated)	2382	0	0	0	R	0	0	0	0	(0)	0	0		NI	D	0
	3425	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Oxygenated aliphatic hydrocarbon mixture	2266 2825	5	2	(2)	NR	1	NI	0	0	(1)	1	1		NI	FE	2
		RTECS No						CAS No:								
Palm acid oil	2307 3037	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1		NI	Fp	2
		RTECS No						CAS No:			68440-15-3					
Palm fatty acid distillate	2310 3040	NI	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1		NI	Fp	2
		RTECS No						CAS No:								
Palm fatty acids, C16+	2328 3083	NI	NI		NI	NI	NI	0	0	(0)	0	0		NI	NI	NI
		RTECS No						CAS No:			68440-15-3					
Palm kernel acid oil	3088	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Palm kernel acid oil	1095 553	0	NI	0	R	(3)	NI	0	0	(2)	1	2		NI	Fp	2
		RTECS No						CAS No:			8023-79-8					
Palm kernel fatty acid distillate	2335 3089	(0)	0	0	R	(3)	NI	0	(0)	(2)	1	2		NI	Fp	2
		RTECS No						CAS No:								
Palm kernel fatty acid distillate	2335 3111	(0)	0	0	R	(3)	NI	0	(0)	(2)	1	2		NI	Fp	2
		RTECS No						CAS No:								
Palm kernel oil	1094 2766	0	NI	0	R	(2)	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
		RTECS No						CAS No:			8023-79-8					
Palm kernel oil methyl esters, C12-C18	2330 3085	NI	NI		NI	NI	NI	0	(0)	(0)	0	0		NI	NI	NI
		RTECS No						CAS No:								
Palm kernel olein	2308 3038	(0)	NI	(0)	(R)	1	NI	(0)	(0)	(0)	(0)	(0)		NI	Fp	2
		RTECS No						CAS No:								
Palm kernel stearin	2309 3039	0	(0)	(0)	(R)	0	NI	(0)	(0)	(0)	(0)	(0)		NI	Fp	2
		RTECS No						CAS No:								
Palm mid-fraction	2363 3126	(0)	NI	(0)	(R)	(0)	NI	0	0	(0)	(0)	(0)		NI	Fp	2
		RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Palm oil	2249 2764	0	NI	0	R	0	NI	0	(0)	(0)	0	0		NI	Fp	2
			RTECS No					CAS No:								8023-79-8
Palm oil (containing less than 15% free fatty acids)	2319 3049	0	NI	0	R	0	NI	0	(0)	(1)	(0)	(1)		NI	Fp	2
			RTECS No					CAS No:								
Palm oil fatty acid methyl ester	1097 554	0	NI	0	R	0	NI	0	0	0	0	1		NI	Fp	2
			RTECS No					CAS No:								91051-34-2
Palm oil methyl esters, C16-C18	2329 3084	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
			RTECS No					CAS No:								
Palm olein	2250 2765	0	NI	0	R	0	NI	0	(0)	(0)	0	0		NI	Fp	2
			RTECS No					CAS No:								8023-79-8
Palm stearin	2251 555	0	NI	0	R	0	NI	0	(0)	(0)	0	0		NI	Fp	2
			RTECS No					CAS No:								8002-75-3
Paraffin wax	1086 556	0	NI	0	R	0	NI	(0)	(0)	(1)	1	1		NI	Fp	2
			RTECS No			RV0350000		CAS No:								8002-74-2
Paraldehyde	1098 557	0	0	0	NR	0	NI	1	0	0	1	3		NI	D	3
			RTECS No			YK0525000		CAS No:								123-63-7
Paraldehyde-ammonia reaction product	2131 1989	1	NI	1	R	2	NI	2	1	(3)	3B	3		NI	FED	3
			RTECS No					CAS No:								68391-11-7
Pentachloroethane	1099 558	3	2	2	NI	3	1	1	(1)	1	(1)	(1)	CT	NI	S	3
			RTECS No			KI6300000		CAS No:								76-01-7
1,3-Pentadiene	1102 14	2	NI	2	NR	2	NI	0	0	0	1	(2)		NI	E	2
			RTECS No			RZ2464000		CAS No:								504-60-9
Pentaethylenhexamine	1103 560	0	NI	0	NI	4	NI	1	(2)	(3)	3	(3)	S	NI	D	3
			RTECS No			RZ2680000		CAS No:								4067-16-7
Pentane (all isomers)	1105 561	3	NI	3	R	3	NI	0	0	0	1	1		NI	E	2
			RTECS No			RZ9450000		CAS No:								109-66-0

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Pentanoic acid	1109	1	NI	1	NI	2	NI	1	2	(3)	3	3		NI	FD	3
	562	RTECS No YV6100000						CAS No:			109-52-4					
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture	2144	(1)	NI	(1)	NI	(2)	NI	(1)	(2)	(3)	3	(3)		NI	FD	3
	2211	RTECS No						CAS No:								
Pentene (all isomers)	1992	2	NI	2	NI	(2)	NI	(0)	(0)	(0)	(0)	(1)		NI	E	2
	563	RTECS No						CAS No:								
1-Pentene	1114	2	NI	2	NI	(2)	NI	(0)	(0)	0	(0)	(1)		NI	E	2
	2679	RTECS No						CAS No:			109-67-1					
2-Pentene	1115	2	NI	2	NI	2	NI	(0)	(0)	(1)	(0)	(1)		NI	E	2
	2678	RTECS No						CAS No:			109-68-2					
iso-Pentene	1113	2	NI	2	NI	2	NI	(0)	(0)	(0)	(0)	(1)		NI	E	2
	2677	RTECS No EM7600000						CAS No:			563-45-1					
n-Pentyl propionate	1484	2	NI	2	R	2	NI	0	0	(2)	2	1		NI	F	2
	484	RTECS No						CAS No:			624-54-4					
Peracetic acid	1116	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	2694	RTECS No SD8750000						CAS No:			79-21-0					
Perchloroethylene	1295	3	2	2	NR	(3)	2	0	0	0	2	1	C	NI	S	3
	564	RTECS No KX3850000						CAS No:			127-18-4					
Petrolatum	2244	0	NI	0	NR	0	NI	0	0	2	1	1		NI	Fp	2
	565	RTECS No						CAS No:			8002-74-2					
Phenol	1124	1	2	2	R	3	0	2	2	(3)	3	3		NT	S	3
	566	RTECS No SJ3325000						CAS No:			108-95-2					
1-Phenyl-1-xylyl ethane	1135	5	4	4	NR	(2)	NI	1	0	(1)	(0)	0		NI	F	1
	23	RTECS No CZ7300000						CAS No:			40766-31-2					
Phosphate esters, alkyl (C12-C14) amine	1854	2	NI	2	NR	3	NI	0	(0)	(2)	1	2		NI	FD	2
	1345	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Phosphoric acid	1138 567	Inor	NI	INORG	Inorg	1	NI	(3)	(3)	3	3	3		NI	D	3
		RTECS No						CAS No:								7664-38-2
Phosphorus, yellow or white	1139 568	Inor	(3)	(3)	Inorg	6	4	0	0	0	2	1		NI	S	2
		RTECS No						CAS No:								7723-14-0
Phthalic anhydride (molten)	1146 569	1	NI	1	R	2	0	1	0	(3)	1	3	S	NI	S	3
		RTECS No						CAS No:								85-44-9
alpha-Pinene	40 109	4	NI	4	NI	4	NI	0	0	0	1	(1)	S	T	F	3
		RTECS No						CAS No:								80-56-8
beta-Pinene	41 141	4	NI	4	NI	4	NI	0	0	0	1	(1)	S	NT	F	3
		RTECS No						CAS No:								127-91-3
Pine oil	1148 570	4	NI	4	NR	4	NI	0	0	(1)	(1)	(1)	S	(T)	Fp	3
		RTECS No						CAS No:								8002-09-3
Polyacrylic acid solution (40% or less)	2302 2709	(2)	NI	(2)	NR	1	NI	0	0	(1)	1	1		NI	D	1
		RTECS No						CAS No:								
Polyalkyl (C18-C22) acrylate in xylene	1151 580	(3)	NI	(3)	NR	2	NI	0	0	(2)	2	1		NI	Fp	2
		RTECS No						CAS No:								
Polyalkyl alkenamide succinimide molybdenum oxysulphide	2379 3422	NI	0	0	NR	0	NI	0	0	(0)	0	0		NI	Fp	2
		RTECS No						CAS No:								186432-61-1
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	1152 576	1	NI	1	R	1	0	0	0	0	2	2		NI	D	2
		RTECS No						CAS No:								
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	2254 575	1	NI	1	NR	2	1	0	0	0	2	2		NI	D	2
		RTECS No						CAS No:								
Polyalkylene oxide polyol	1441 583	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	SD	NI
		RTECS No						CAS No:								TQ8170000
Polyalkyl (C10-C20) methacrylate	1984 2189	(5)	NI	(5)	NR	0	NI	0	0	0	0	0		NI	Fp	2
		RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Polyalkyl (C10-C18) methacrylate/ethylene-propylene copolymer mixture	2201 2188	0	0	0	NR	0	0	0	0	(1)	1	1	A	NI	Fp	3
		RTECS No						CAS No:								
Polyaluminium chloride solution	1136 584	Inor	0	0	Inorg	0	NI	(0)	(0)	(1)	(0)	(1)		NI	D	1
		RTECS No			BD0549500			CAS No:			1327-41-9					
Polybutene	1154 585	0	NI	0	(NR)	(0)	(0)	(0)	(0)	(0)	(0)	(0)		NI	Fp	2
		RTECS No			EM9032000			CAS No:			9003-29-6					
Polybutenyl succinimide	2055 586	5	NI	5	NR	0	NI	(0)	(0)	(0)	0	(0)		NI	Fp	2
		RTECS No						CAS No:								
Poly(2+)cyclic aromatics	2246 574	4	4	4	NR	(4)	NI	(1)	(1)	(2)	(1)	(1)	CM	NI	S	3
		RTECS No						CAS No:			91-20-3					
Polyether (molecular weight 1350+)	1975 587	0	NI	0	NR	1	NI	0	(0)	(0)	0	0		NI	Fp	2
		RTECS No						CAS No:			25322-68-3					
Polyetheramine	2946	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Polyether, borated	1863 572	0	NI	0	NR	3	NI	0	(0)	(1)	1	0		NI	D	1
		RTECS No						CAS No:								
Polyether glycol (mw 1350-1450)	2541	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								
Polyethylene glycol	1157 589	0	NI	0	NR	0	NI	0	0	0	1	1		NI	D	1
		RTECS No			TQ3500000			CAS No:			25322-68-3					
Polyethylene glycol dimethyl ether	1158 590	0	NI	0	NR	0	NI	0	0	(1)	1	(1)		NI	D	1
		RTECS No			MC9630000			CAS No:			24991-55-7					
Polyethylene polyamines	2367 3131	0	NI	0	NR	3	0	1	0	(3)	2	(3)	S	NI	D	0
		RTECS No						CAS No:			68131-73-7					
Polyethylene polyamines (more than 50% C5 -C20 paraffin oil)	1991 591	(5)	NI	(5)	NR	3	0	0	(1)	(3)	(2)	(3)	S	NI	Fp	0
		RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Polyferric sulphate solution	338 592	Inor	0	0	Inorg	(2)	NI	1	(1)	(3)	3	(3)		NI	D	3
		RTECS No						CAS No:								
Polyglycerin, sodium salt solution (containing less than 3% sodium hydroxide)	1874 593	0	NI	0	R	0	NI	0	0	(3)	(2)	3		NI	D	3
		RTECS No						CAS No:								
Polyglycerol	1511 594	NI	NI	NI	NI	NI	NI	0	(0)	(0)	(0)	(0)		NI	D	0
		RTECS No						CAS No:						25618-55-7		
Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)	2287 2537	0	0	0	NR	0	NI	0	0	(1)	0	1		NI	D	1
		RTECS No						CAS No:						68130-99-4		
Polyisobutenamine in aliphatic (C10-C14) solvent	2192 2374	0	0	0	NR	2	NI	0	(0)	(2)	2	1		NI	FED	2
		RTECS No						CAS No:								
Polyisobutenyl anhydride adduct	2127 2256	0	NI	0	NR	0	NI	0	0	(1)	0	1		NI	FD	1
		RTECS No						CAS No:								
Poly(4+)isobutylene	2264 578	0	NI	0	NR	0	NI	(0)	(0)	(0)	(0)	(0)		NI	Fp	2
		RTECS No						CAS No:						629-73-2		
Polymethylene polyphenyl isocyanate	1153 595	NI	(2)	(2)	NR	0	0	0	0	(2)	2	2	S	NI	S	2
		RTECS No			TR0350000			CAS No:						9016-87-9		
Polyolefin (molecular weight 300+)	1968 596	0	NI	0	NR	0	NI	0	0	0	0	0		NI	Fp	2
		RTECS No						CAS No:								
Polyolefin amide alkeneamine (C17+)	2104 597	5	NI	5	NR	0	NI	0	0	(1)	1	(1)		NI	Fp	2
		RTECS No						CAS No:								
Polyolefin amide alkeneamine (C28+)	1971 598	0	NI	0	NR	0	NI	0	0	(0)	1	(1)		NI	NI	1
		RTECS No						CAS No:								
Polyolefin amide alkeneamine borate (C28-C250)	1970 600	0	NI	0	NR	0	NI	0	0	(0)	0	(0)		NI	Fp	2
		RTECS No						CAS No:								
Polyolefin amide alkeneamine/molybdenum oxysulphide mixture	2256 603	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
		RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Polyolefin amide alkeneamine polyol	1989 602	0	NI	0	NR	0	NI	0	0	(0)	0	0	S	NI	Fp	3
			RTECS No					CAS No:								
Poly (17+) olefin amine	2049 571	0	NI	0	NR	2	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2
			RTECS No					CAS No:						98761-78-5		
Polyolefinamine (C28-C250)	2107 609	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)		NI	Fp	2
			RTECS No					CAS No:								
Polyolefinamine in alkyl (C2-C4) benzenes	2107 610	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)		NI	Fp	2
			RTECS No					CAS No:								
Polyolefinamine in aromatic solvent	2107 611	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)		NI	Fp	2
			RTECS No					CAS No:								
Polyolefin aminoester salts (molecular weight 2000+)	2095 604	0	NI	0	NR	1	NI	0	0	(1)	1	(1)		NI	Fp	2
			RTECS No					CAS No:								
Polyolefin anhydride	1865 605	0	NI	0	NR	1	NI	0	0	(2)	1	(2)		NI	Fp	2
			RTECS No					CAS No:						67762-77-0		
Polyolefin ester (C28-C250)	1969 606	0	NI	0	NR	0	NI	0	0	(0)	0	0		NI	Fp	2
			RTECS No					CAS No:								
Polyolefin phenolic amine (C28-C250)	1980 607	0	NI	0	NI	0	NI	0	0	(1)	(1)	(1)		NI	Fp	2
			RTECS No					CAS No:								
Polyolefin phosphorusulphide, barium derivative (C28-C250)	1976 608	0	NI	0	NI	2	NI	0	(0)	(0)	(0)	(0)		NI	S	0
			RTECS No					CAS No:								
Poly(20)oxyethylene sorbitan monooleate	1442 577	3	NI	3	NI	(3)	NI	0	(0)	(1)	0	1		NI	D	1
			RTECS No		WG2932500			CAS No:						9005-65-6		
Polyoxypropylene diamine	2352 3112	1	NI	1	NR	1	NI	0	0	(3)	3	3		NI	D	3
			RTECS No					CAS No:								
Polyoxypropylene diamine (mw 2000)	3014	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
			RTECS No					CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Poly(5+)propylene	1512 579	0	NI	0	NR	(0)	NI	(0)	(0)	(0)	(0)	(0)		NI	F	1
			RTECS No		UD1842000			CAS No:						9003-07-0		
Polypropylene glycol	1159 612	0	NI	0	(NR)	1	NI	1	0	(1)	1	1		NI	D	1
			RTECS No		TR6125000			CAS No:						25322-69-4		
Polysiloxane	1161 613	NI	4	4	NI	2	NI	0	(0)	(0)	0	0		NI	F	1
			RTECS No					CAS No:								
Poly(tetramethylene ether) glycol (mw 600-3000)	2147 2540	2	NI	2	NI	3	NI	0	NI	1	2	1		NI	FD	2
			RTECS No					CAS No:								
Potassium chloride brine	2345 3109	Inor	0	0	Inorg	1	0	0	(0)	(1)	0	0		NI	D	0
			RTECS No					CAS No:						7447-40-7		
Potassium chloride solution	1513 614	Inor	0	0	Inorg	1	0	0	(0)	(1)	0	1		NI	D	0
			RTECS No		TS8050000			CAS No:						7447-40-7		
Potassium formate solutions	2121 615	0	NI	0	R	0	NI	(0)	(0)	(2)	2	2		NI	D	2
			RTECS No		LQ9625000			CAS No:						520-29-4		
Potassium hydroxide solution	1171 616	Inor	0	0	Inorg	2	NI	2	(2)	(3)	3C	3		NI	D	3
			RTECS No		TT2100000			CAS No:						1310-58-3		
Potassium oleate	1497 617	3	NI	3	R	4	NI	(0)	(0)	(1)	1	1		NI	FD	1
			RTECS No		RK1150000			CAS No:						143-18-0		
Potassium salt of polyolefin acid	1895 2199	NI	NI	NI	NR	0	NI	0	0	(0)	0	0		NI	NI	0
			RTECS No					CAS No:								
Potassium thiosulphate (50% or less)	2152 2335	Inor	0	0	Inorg	2	NI	0	0	(2)	2	(2)		NI	D	2
			RTECS No					CAS No:						10294-66-3		
n-Propanolamine	1183 485	0	NI	0	R	2	NI	0	1	(3)	3	3		NI	D	3
			RTECS No		UA5600000			CAS No:						156-87-6		
beta-Propiolactone	1184 142	0	NI	0	R	(2)	NI	2	(2)	4	3B	3	CM	NI	D	3
			RTECS No		RQ7350000			CAS No:						57-57-8		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Propionaldehyde	1185 619	0	NI	0	R	2	NI	1	0	1	2	2		NI	DE	2
			RTECS No	UE0350000				CAS No:								123-38-6
Propionic acid	1186 620	0	NI	0	R	2	NI	0	0	(3)	3B	3		NI	D	3
			RTECS No	UE5950000				CAS No:								79-09-4
Propionic anhydride	1187 621	0	NI	0	R	2	NI	0	0	(3)	2	3		NI	FD	3
			RTECS No	UF9100000				CAS No:								123-62-6
Propionitrile	1188 622	0	NI	0	NI	0	NI	3	3	4	1	2	R	NI	D	3
			RTECS No	UF9625000				CAS No:								107-12-0
n-Propyl acetate	1191 487	1	NI	1	R	2	NI	0	0	0	1	1		NI	ED	1
			RTECS No	AJ3675000				CAS No:								109-60-4
n-Propyl alcohol	1180 488	0	NI	0	R	0	NI	1	0	0	1	2	R	NI	D	3
			RTECS No	UH8225000				CAS No:								71-23-8
n-Propylamine	1194 490	0	NI	0	NI	1	NI	2	2	3	3	3		NI	DE	3
			RTECS No	UH9100000				CAS No:								107-10-8
Propylbenzene	1196 2686	NI	NI		NI	3	NI	NI	NI	NI	NI	NI		(T)	FE	NI
			RTECS No	DA8750000				CAS No:								103-65-1
Propylbenzene (all isomers)	1197 623	3	2	2	R	3	NI	0	0	0	2	1		NI	FE	2
			RTECS No	GR8575000				CAS No:								98-82-8
n-Propyl chloride	1198 489	2	NI	2	NI	1	NI	0	NI	NI	NI	NI		NI	FED	2
			RTECS No	TX4400000				CAS No:								540-54-5
Propylene-Butylene copolymer	1508 633	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	(0)	(0)		NI	NI	0
			RTECS No					CAS No:								
Propylene carbonate	2056 624	0	NI	0	R	0	NI	0	0	(3)	2	3		NI	D	3
			RTECS No	FF9650000				CAS No:								108-32-7
Propylene dimer	1201 625	3	NI	3	R	3	NI	NI	NI	NI	NI	NI		NI	E	2
			RTECS No					CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Propylene glycol	1202	0	NI	0	R	0	0	0	0	(1)	0	1		NI	D	1	
	626	RTECS No TY2000000			CAS No:			57-55-6									
Propylene glycol methyl ether acetate	1759	0	NI	0	NR	1	NI	0	0	0	0	1		NI	D	1	
	627	RTECS No AI8925000			CAS No:			108-65-6									
Propylene glycol monoalkyl ether	1958	0	NI	0	NR	0	NI	0	1	0	2	3		NI	D	3	
	628	RTECS No			CAS No:			111-35-3									
Propylene glycol phenyl ether	2057	1	NI	1	NI	1	NI	0	0	(1)	(1)	(1)		NI	SD	1	
	629	RTECS No UB8886000			CAS No:												
Propylene oxide	76	0	NI	0	R	2	NI	1	1	2	2	3	CMR	NI	DE	3	
	630	RTECS No TZ2975000			CAS No:			75-56-9									
Propylene tetramer	2255	4	NI	4	NR	(4)	NI	(0)	(0)	(1)	(1)	(1)		NI	F	1	
	631	RTECS No			CAS No:			6842-15-5									
Propylene trimer	1207	5	4	4	NR	3	2	(0)	(0)	(1)	(1)	(1)		NI	FE	2	
	632	RTECS No UD2794000			CAS No:			13987-01-4									
Pyridine	1213	0	NI	0	R	3	0	1	1	2	1	3		NT	D	3	
	634	RTECS No UR8400000			CAS No:			110-86-1									
Pyrolysis gasoline (containing benzene)	2271	(4)	(3)	(3)	(R)	(3)	(1)	1	0	(2)	2	2	TCM	NI	FE	3	
	1990	RTECS No			CAS No:												
Rapeseed oil	2315	0	NI	0	R	(2)	NI	(0)	(0)	(0)	(1)	(1)		NI	Fp	2	
	3045	RTECS No			CAS No:												
Rapeseed oil (high erucic acid)	1217	0	NI	0	R	(2)	NI	(0)	(0)	(0)	NI	NI		NI	Fp	2	
	2768	RTECS No			CAS No:			8002-13-9									
Rapeseed oil	2296	0	NI	0	R	(2)	NI	0	0	0	(1)	(1)		NI	Fp	2	
	2956	RTECS No			CAS No:												
Rape seed oil fatty acid methyl esters	2209	0	0	0	R	0	NI	0	(0)	(1)	1	1		NI	Fp	2	
	2576	RTECS No			CAS No:			67762-38-3									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Resin oil, distilled	2299	(3)	NI	(3)	(NR)	(3)	NI	0	0	(2)	2	1	MN	NI	FE	3
	2958	RTECS No						CAS No:						68477-54-3		
Rice bran oil	2312	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1		NI	Fp	2
	3043	RTECS No						CAS No:						68553-81-1		
Rosin	1219	3	NI	3	NR	3	NI	0	0	2	(1)	1	S	NI	S	2
	635	RTECS No						CAS No:						8050-09-7		
Rosin soap (disproportionated) solution	1220	3	NI	3	NR	3	NI	0	NI	NI	NI	NI		NI	S	NI
	636	RTECS No						CAS No:								
Safflower oil	1222	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(1)	1	1		0	Fp	2
	3041	RTECS No			VN2230000			CAS No:								
Shea butter	2311	(0)	NI	(0)	NR	(0)	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
	3042	RTECS No						CAS No:						91080-23-8		
Sodium acetate solutions	1498	0	NI	0	R	0	NI	0	0	0	1	1		NI	D	1
	639	RTECS No			AJ4375000			CAS No:						127-09-3		
Sodium alkyl (C14-C17) sulphonates (60-65% solution)	334	2	2	2	R	3	1	0	0	(2)	2	2		NI	D	2
	1153	RTECS No						CAS No:						85711-69-9		
Sodium aluminate solution	1234	Inor	0	0	Inorg	NI	NI	(0)	(0)	(3)	(3)	(3)		NI	D	3
	641	RTECS No			BD1600000			CAS No:						11138-49-1		
Sodium aluminosilicate slurry	1235	Inor	0	0	Inorg	1	0	0	0	0	1	1		NI	S	1
	643	RTECS No						CAS No:						1344-00-9		
Sodium benzoate	1475	0	NI	0	R	1	NI	0	(0)	(1)	0	1		NI	D	1
	644	RTECS No			DH6650000			CAS No:						532-32-1		
Sodium bicarbonate (less than 10%) drilling brines		NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI
	3412	RTECS No						CAS No:								
Sodium borohydride (15% or less)/Sodium hydroxide solution	1239	Inor	0	0	Inorg	2	NI	(2)	(1)	(3)	(3)	(3)		NI	D	3
	645	RTECS No						CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
Sodium bromide solution (less than 50%) drilling brines	3410	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	
		RTECS No			CAS No:												
Sodium carbonate solution	1243	Inor	0	0	Inorg	1	NI	0	0	3	1	2		NI	SD	2	
	646	RTECS No			CAS No:			VZ4050000 497-19-8									
Sodium chlorate solution (50% or less)	1244	Inor	0	0	Inorg	1	NI	1	0	(2)	1	1	S	NI	D	2	
	647	RTECS No			CAS No:			FO0525000 7775-09-9									
Sodium dichromate solution (70% or less)	487	Inor	0	0	Inorg	2	1	2	2	4	2	3	CMS	NI	D	3	
	649	RTECS No			CAS No:			HX7700000 10588-01-9									
Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution	2262	Inor	NI	Inorg	Inorg	1	NI	0	0	0	0	1		NI	D	1	
	650	RTECS No			CAS No:			16721-80-5									
Sodium hydrogen sulphite solution (45% or less)	1251	Inor	0	0	Inorg	1	NI	0	(0)	(0)	0	0		NI	D	0	
	651	RTECS No			CAS No:			VZ2000000 7631-90-5									
Sodium hydrosulphide/Ammonium sulphide solution	1253	Inor	0	0	Inorg	3	NI	1	1	0	2	2		NI	D	2	
	653	RTECS No			CAS No:												
Sodium hydrosulphide solution (45% or less)	1252	Inor	0	0	Inorg	1	NI	1	1	1	2	2		NI	D	2	
	652	RTECS No			CAS No:			WE1900000 16721-80-5									
Sodium hydroxide solution	1254	Inor	0	0	Inorg	2	NI	1	1	(3)	3C	3		NI	D	3	
	654	RTECS No			CAS No:			WB4900000 1310-73-2									
Sodium hypochlorite solution (15% or less)	1256	Inor	0	0	Inorg	(4)	(1)	0	0	1	3	3	S	NI	D	3	
	2785	RTECS No			CAS No:			NH3486300 7681-52-9									
Sodium hypochlorite solution (Full strength solution)	1255	Inor	0	0	Inorg	5	2	0	0	1	3	3	S	NI	D	3	
	655	RTECS No			CAS No:			NH3486300 7681-52-9									
Sodium lignosulphonate (51% solution in water)	2088	NI	NI		NI	NI	NI	0	(0)	(0)	0	0		NI	SD	0	
	2695	RTECS No			CAS No:			8061-51-6									
Sodium nitrate	1259	Inor	0	0	Inorg	0	NI	(0)	(0)	(0)	(1)	(1)		NI	SD	1	
	656	RTECS No			CAS No:			WC5600000 7631-99-4									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Sodium nitrite (solid)	340	Inor	0	0	Inorg	3	0	2	(2)	2	0	1		NI	SD	2
	657	RTECS No			RA1225000	CAS No:						7632-00-0				
Sodium nitrite solution	340	Inor	0	0	Inorg	3	0	2	(2)	2	0	1		NI	SD	2
	658	RTECS No			RA1225000	CAS No:						7632-00-0				
Sodium perborate monohydrate	2284	Inor	NI	NI	Inorg	3	NI	1	0	(3)	2	3		NI	NI	3
	2948	RTECS No				CAS No:						11138-47-9				
Sodium petroleum sulphonate	1860	0	NI	0	(NR)	2	NI	0	(0)	(2)	1	2	S	NI	S	2
	660	RTECS No				CAS No:						68608-26-4				
Sodium poly(4+)acrylate solutions	1487	0	NI	0	NR	1	0	0	(0)	(1)	1	1		NI	D	1
	826	RTECS No				CAS No:						9003-04-7				
Sodium silicate solution	1262	Inor	0	0	Inorg	2	NI	1	0	(3)	3	3		NI	D	3
	661	RTECS No				CAS No:						1344-09-8				
Sodium sulphate solutions	1499	Inor	0	0	Inorg	0	0	0	(0)	(1)	1	1		NI	SD	1
	662	RTECS No			WE1650000	CAS No:						7757-82-6				
Sodium sulphide (solid)	2263	NI	NI		NI	NI	NI	NI	NI	NI	NI	NI		NI	SD	NI
	2786	RTECS No				CAS No:						1313-82-2				
Sodium sulphide solution (15% or less)	1263	Inor	0	0	Inorg	3	NI	1	1	(3)	3A	3		NI	D	3
	663	RTECS No			WE1905000	CAS No:						1313-82-2				
Sodium sulphite solution (25% or less)	9	Inor	0	0	Inorg	2	NI	0	(0)	(1)	0	1		NI	D	1
	664	RTECS No			WE2150000	CAS No:						7757-83-7				
Sodium tartrates/Sodium succinates solution	1771	NI	1	1	NI	1	NI	0	NI	NI	NI	NI		NI	D	NI
	665	RTECS No				CAS No:										
Sodium thiocyanate solution (56% or less)	1264	Inor	0	0	Inorg	2	NI	1	(0)	(1)	0	0		NI	D	1
	667	RTECS No			XL2275000	CAS No:						540-72-7				
Sorbitan monooleate	2215	(5)	NI	(5)	R	3	NI	0	NI	NI	0	0		NI	Fp	2
	2408	RTECS No				CAS No:										

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Sorbitol solution	1265 668	0	NI	0	R	0	NI	0	(0)	(0)	(0)	(0)		NI	D	0
			RTECS No					CAS No:								50-70-4
Soyabean acid oil	2336 3090	NI	NI		NI	NI	NI	(0)	(0)	(1)	1	1		NI	NI	NI
			RTECS No					CAS No:								
Soyabean oil	2320 3050	0	NI	0	R	0	NI	0	(0)	(1)	(0)	1		NI	Fp	2
			RTECS No					CAS No:								
Soyabean oil	1267 2770	0	NI	0	R	0	NI	0	(0)	(1)	(0)	1		NI	Fp	2
			RTECS No					CAS No:								8001-22-7
Styrene monomer	1273 669	3	(2)	3	R	3	NI	1	0	2	2	2	CM	NI	FE	3
			RTECS No					CAS No:								100-42-5
Sulphohydrocarbon (C3-C88)	1972 672	4	NI	4	NR	2	NI	0	0	0	0	0		NI	Fp	2
			RTECS No					CAS No:								68511-50-2
Sulpho hydrocarbon long chain (C18+) alkylamine mixture	2003 670	NI	NI	NI	NI	3	NI	0	0	(2)	2	2		NI	S	2
			RTECS No					CAS No:								
Sulpholane	1277 673	0	1	1	NR	2	0	1	0	0	1	2		NI	SD	2
			RTECS No					CAS No:								126-33-0
Sulphonated polyacrylate solution	1760 674	NI	0	0	NI	0	NI	(0)	(0)	(0)	(0)	(0)		NI	D	0
			RTECS No					CAS No:								
Sulphur (molten)	906 675	Inor	0	0	Inorg	0	NI	0	0	(1)	1	1		NI	S	1
			RTECS No					CAS No:								7704-34-9
Sulphuric acid	1280 676	Inor	NI	Inorg	Inorg	2	NI	(3)	(3)	4	3C	3	C	NI	D	3
			RTECS No					CAS No:								7664-93-9
Sulphuric acid, spent	1280 677	Inor	NI	Inorg	Inorg	2	NI	(3)	(3)	4	3C	3	C	NI	D	3
			RTECS No					CAS No:								7664-93-9
Sulphurized fat (C14-C20)	1853 2257	0	NI	0	NR	1	NI	0	(0)	(1)	0	(1)		NI	FD	1
			RTECS No					CAS No:								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Sulphurized polyolefinamide alkene (C28-C250) amine	1855 2258	0	NI	0	NR	0	NI	0	0	(0)	0	0		NI	FD	0
			RTECS No					CAS No:								
Sunflowerseed acid oil	2337 3091	NI	NI		NI	NI	NI	(0)	(0)	(1)	(0)	1		NI	NI	NI
			RTECS No					CAS No:								
Sunflower seed oil	1283 2782	0	NI	0	R	0	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
			RTECS No					CAS No:							8000-21-6	
Tall oil (crude and distilled)	1285 678	(4)	NI	(4)	(R)	(2)	NI	0	0	(0)	0	0	S	NI	Fp	2
			RTECS No					CAS No:							8002-26-4	
Tall oil, crude	2357 3118	4	NI	4	R	2	NI	0	0	(0)	0	0	S	NI	Fp	2
			RTECS No					CAS No:							8002-26-4	
Tall oil, distilled	2283 2890	0	NI	0	R	0	NI	0	(0)	(0)	0	(0)		NI	Fp	2
			RTECS No					CAS No:							8002-26-4	
Tall oil fatty acid (resin acids less than 20%)	1287 679	0	0	0	R	0	NI	0	0	(1)	1	1		NI	Fp	2
			RTECS No					CAS No:							61790-12-3	
Tall oil fatty acid, barium salt	1864 680	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	1	2		NI	S	2
			RTECS No					CAS No:								
Tall oil pitch	2323 3051	3	NI	3	NR	0	NI	0	0	(0)	0	(0)	S	NI	Fp	2
			RTECS No					CAS No:							8016-81-7	
Tall oil soap (disproportionated) solution	1286 681	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	1	2		NI	D	2
			RTECS No					CAS No:								
Tallow	1288 682	0	NI	0	R	0	NI	0	0	(0)	(0)	(0)		NI	Fp	2
			RTECS No					CAS No:							61789-21-6	
Tallow fatty acid	1289 684	0	NI	0	R	0	NI	0	(0)	(0)	(0)	(0)		NI	Fp	2
			RTECS No					CAS No:							6170-37-2	
Tetrachloroethane	53 687	2	2	2	NR	3	0	2	0	2	2	2	MN	NI	SD	3
			RTECS No		KI8575000			CAS No:							79-34-5	

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
n-Tetradecanoic acid	1298	5	NI	0	R	0	NI	0	(0)	(1)	(1)	(1)		NI	Fp	2
	491	RTECS No QH4375000			CAS No:											
Tetraethylene glycol	1301	0	NI	0	NR	0	NI	0	0	0	1	1		NI	D	1
	688	RTECS No XC2100000			CAS No:			112-60-7								
Tetraethylene pentamine	1302	0	NI	0	NR	3	NI	0	2	(3)	3	3	S	NI	D	3
	689	RTECS No KH8585000			CAS No:			112-57-2								
Tetraethyl silicate monomer/oligomer (20% in ethanol)	2198	0	0	0	R	0	0	0	0	0	1	2		NI	DE	2
	2475	RTECS No			CAS No:			78-10-4								
Tetrahydrofuran	1304	0	NI	0	R	0	NI	0	(0)	0	1	2		NI	DE	2
	690	RTECS No LU5950000			CAS No:			109-99-9								
Tetrahydronaphthalene	1305	3	3	3	NR	3	NI	0	0	(2)	2	0		NI	F	2
	691	RTECS No QK3850000			CAS No:			119-64-2								
Tetramethylbenzene (all isomers)	1307	4	NI	4	NI	4	NI	0	(0)	(1)	1	(1)		NI	F	1
	692	RTECS No DC0465000			CAS No:			488-23-3								
Thixatrol Plus	2210	5	NI	5	R	3	NI	0	0	0	1	1		NI	S	1
	2699	RTECS No			CAS No:											
Titanium dioxide slurry	2080	Inor	1	1	Inorg	1	NI	0	0	0	1	1		NI	NI	1
	2259	RTECS No			CAS No:			1317-80-2								
Toluene	330	2	2	2	R	3	0	0	0	0	2	2	ANR	NT	E	3
	693	RTECS No XS5250000			CAS No:			108-88-3								
Toluenediamine	1317	0	2	2	NR	3	0	2	2	4	1	2	CMS	NI	Fp	3
	695	RTECS No XS9625000			CAS No:			95-80-7								
Toluene diisocyanate	1315	(3)	1	1	NR	2	NI	0	(0)	4	3	3	SCL	NI	S	3
	694	RTECS No CZ6300000			CAS No:			584-84-9								
o-Toluidine	1316	1	1	1	R	4	2	1	0	(2)	2	2	CM	NI	FD	3
	537	RTECS No			CAS No:											

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Tolyl triazole	2292 696	1	NI	1	NR	2	0	1	0	(2)	(1)	2		NI	S	2
		RTECS No			CAS No:			29385-43-1								
Tributyl phosphate	1319 697	4	2	2	R	3	0	1	0	2	2	2	S	NI	F	3
		RTECS No TC7700000			CAS No:			126-73-8								
1,2,3-Trichlorobenzene (molten)	2191 2288	4	4	4	NR	4	2	1	0	(2)	2	2		NI	S	2
		RTECS No			CAS No:			87-61-6								
1,2,4-Trichlorobenzene	1323 7	4	5	5	NR	4	1	1	0	(2)	2	2	M	NI	S	3
		RTECS No DC2100000			CAS No:			120-82-1								
1,1,1-Trichloroethane	1326 1	2	NI	2	NR	2	NI	0	0	0	2	2		NI	SD	2
		RTECS No KJ2975000			CAS No:			71-55-6								
1,1,2-Trichloroethane	1327 3	2	1	1	NR	2	0	1	0	1	2	1		NI	SD	2
		RTECS No KJ3150000			CAS No:			79-00-5								
Trichloroethylene	329 698	2	2	2	NR	3	NI	0	0	0	2	2	CM	NI	SD	3
		RTECS No KX4550000			CAS No:			79-01-6								
1,2,3-Trichloropropane	1329 6	2	2	2	NR	2	0	2	2	3	2	2	C	NI	SD	3
		RTECS No TZ9275000			CAS No:			96-18-4								
1,1,2-Trichloro-1,2,2-Trifluoroethane	1330 2	3	2	2	NR	3	0	0	0	0	1	1		NI	S	1
		RTECS No KJ4000000			CAS No:			76-13-1								
Tricresyl phosphate (containing 1% or more ortho-isomer)	1332 699	5	3	3	R	4	4	0	1	0	1	1	N	NI	S	2
		RTECS No TD0175000			CAS No:			1330-78-5								
Tricresyl phosphate (containing less than 1% ortho-isomer)	1331 700	5	(3)	(3)	(R)	(4)	(4)	0	1	0	1	1	N	NI	S	2
		RTECS No TD0175000			CAS No:			1330-78-5								
Tridecane	1333 701	0	NI	0	NI	0	NI	0	0	(1)	1	0		NI	Fp	2
		RTECS No YD3025000			CAS No:			629-50-5								
Tridecanoic acid	1334 702	5	NI	5	(R)	3	NI	(0)	(0)	(1)	(1)	(1)		NI	Fp	2
		RTECS No YD3850000			CAS No:			638-53-9								

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Tridecyl acetate	1768	5	NI	5	NI	0	NI	0	(0)	(2)	2	2		NI	F	2
	703	RTECS No						CAS No:						1072-33-9		
Triethanolamine	1338	0	0	0	R	1	NI	0	0	(2)	1	2		NI	D	2
	704	RTECS No			KL9275000			CAS No:						102-71-6		
Triethylamine	1339	1	0	0	R	3	0	1	2	2	2	3		NI	D	3
	706	RTECS No			YE0175000			CAS No:						121-44-8		
Triethylbenzene	1340	5	NI	5	NI	4	NI	0	(0)	(2)	(2)	(1)		NI	F	2
	707	RTECS No			DC2490000			CAS No:						25340-18-5		
Triethylene glycol	1341	0	NI	0	R	0	0	0	0	(1)	1	1		NI	D	1
	708	RTECS No			YE4550000			CAS No:						112-27-6		
Triethylenetetramine	1346	0	NI	0	NR	3	NI	0	2	(3)	3	3	S	NI	D	3
	709	RTECS No			YE6650000			CAS No:						112-24-3		
Triethyl phosphate	1348	0	0	0	NR	1	0	1	0	0	(2)	(2)		NI	D	2
	705	RTECS No			TC7900000			CAS No:						78-40-0		
Triethyl phosphite	1349	0	NI	0	R	1	NI	1	0	2	1	2	S	NI	FE	2
	710	RTECS No			TH1130000			CAS No:						122-52-1		
Triisopropanolamine	1370	0	0	0	NR	1	0	1	0	0	(2)	3		NI	FD	3
	711	RTECS No			UB8750000			CAS No:						122-20-3		
Triisopropylated phenyl phosphates	1375	5	5	5	R	4	NI	0	0	0	0	0		NI	S	0
	712	RTECS No						CAS No:						68937-41-7		
Trimethylacetic acid	1350	1	1	1	R	2	NI	1	1	(2)	2	2		NI	Fp	2
	714	RTECS No			TO7700000			CAS No:						75-98-9		
Trimethylamine solution (30% or less)	1353	0	NI	0	R	1	NI	1	0	2	3	3		NI	DE	3
	715	RTECS No			PA0350000			CAS No:						75-50-3		
Trimethylbenzene (all isomers)	1354	3	3	3	NR	4	0	0	0	1	2	1		NI	FE	2
	716	RTECS No			DC3300000			CAS No:						526-73-8		

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Trimethylhexamethylenediamine (2,2,4- and 2,4,4-isomers)	1359	1	NI	1	NI	NI	NI	1	0	(3)	2	3	S	NI	D	3
	718	RTECS No			MO1451000			CAS No:			26520-58-0					
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-isomers)	1360	0	NI	0	NI	3	NI	0	NI	NI	NI	NI	S	NI	NI	2
	717	RTECS No			MO1760000			CAS No:			28679-16-5					
Trimethylolpropane polyethoxylate	1362	NI	NI	NI	NR	1	NI	0	0	NI	NI	NI		NI	NI	NI
	719	RTECS No						CAS No:			25723-16-4					
Trimethylol propane propoxylated	2274	0	NI	0	(NR)	1	0	0	0	(1)	0	1		NI	SD	1
	2870	RTECS No						CAS No:			25723-16-4					
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	1845	4	NI	4	NI	0	NI	0	0	(1)	1	0		NI	F	1
	26	RTECS No						CAS No:			6846-50-0					
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	1364	3	NI	3	NI	2	NI	0	0	(1)	1	1		NI	Fp	2
	27	RTECS No			UF6000000			CAS No:			25265-77-4					
Trimethyl phosphite	1365	0	NI	0	R	NI	NI	NI	NI	NI	NI	NI		NI	S	NI
	713	RTECS No			TH1400000			CAS No:			121-45-9					
1,3,5-Trioxane	1844	0	NI	0	NI	0	NI	0	0	0	0	1	R	NI	SD	3
	10	RTECS No			YK0350000			CAS No:			110-88-3					
Tripropylene glycol	1372	0	0	0	NR	0	NI	0	0	(0)	0	0		NI	D	0
	720	RTECS No			YK6825000			CAS No:			24800-44-0					
Trixylyl phosphate	1377	5	4	4	NR	4	1	(0)	(1)	(2)	(1)	(1)		NI	S	2
	721	RTECS No			ZE8320000			CAS No:			25155-23-1					
Tung oil	1378	0	NI	0	R	(2)	NI	(0)	(0)	(1)	(0)	(1)		NI	Fp	2
	2784	RTECS No						CAS No:			8001-20-5					
Turpentine	1379	4	NI	4	NI	4	NI	0	(0)	1	(2)	2	AS	(T)	D	2
	722	RTECS No			YO8400000			CAS No:			8006-64-2					
Undecanoic acid	1381	4	NI	4	(R)	3	NI	(0)	(0)	(2)	1	(2)		NI	Fp	2
	723	RTECS No			YQ2275000			CAS No:			112-37-8					

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3	
1-Undecene	1383	5	NI	5	NR	4	NI	(0)	(0)	(1)	(1)	(1)		NI	F	1	
	24	RTECS No						CAS No:							821-95-4		
Undecyl alcohol	1382	4	NI	4	R	4	NI	0	0	(2)	2	(1)		NI	Fp	2	
	724	RTECS No			YQ3155000			CAS No:							112-42-5		
Urea	1384	0	0	0	R	1	NI	0	0	(1)	1	(1)		NI	D	1	
	2627	RTECS No			YR6250000			CAS No:									
Urea/Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution	1386	0	0	0	R	3	2	NI	NI	NI	NI	NI		NI	NI	NI	
	727	RTECS No						CAS No:									
Urea/Ammonium nitrate solution	2322	Inor	NI	Inorg	R	1	NI	0	0	(2)	1	2		NI	D	2	
	728	RTECS No						CAS No:									
Urea/Ammonium nitrate solution (containing less than 1% free ammonia)	1387	Inor	NI	Inorg	R	3	2	0	0	(2)	1	2		NI	D	2	
	729	RTECS No						CAS No:									
Urea/Ammonium phosphate solution	2179	0	0	0	R	3	2	(0)	(0)	(2)	(2)	(2)		NI	D	2	
	730	RTECS No						CAS No:									
Urea formaldehyde resin solution	1388	NI	NI	NI	NI	1	NI	1	1	NI	NI	NI	S	NI	NI	2	
	725	RTECS No						CAS No:									
Urea solution	1384	0	0	0	R	1	NI	0	0	(1)	1	(1)		NI	D	1	
	726	RTECS No			YR6250000			CAS No:							57-13-6		
Valeraldehyde (all isomers)	1390	1	NI	1	R	3	NI	0	0	0	2	2		NI	D	2	
	731	RTECS No			ES3450000			CAS No:							590-86-3		
Vegetable acid oils (m)	2371	0	NI	0	R	0	NI	(0)	(0)	(1)	(1)	(1)		NI	Fp	2	
	3138	RTECS No						CAS No:									
Vegetable fatty acid distillates (m)	2369	0	NI	0	R	0	NI	(0)	(0)	(0)	(0)	(0)		NI	Fp	2	
	3137	RTECS No						CAS No:									
Vegetable protein solution (hydrolysed)	1398	0	NI	0	R	0	NI	(0)	(0)	(0)	(0)	(0)		NI	D	0	
	734	RTECS No						CAS No:									

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Vinyl acetate	1400 735	0	NI	0	R	2	NI	1	0	2	1	1	C	NI	ED	3
			RTECS No			AK0875000		CAS No:								108-05-4
Vinyl ethyl ether	1405 736	1	NI	1	NR	1	NI	0	0	0	1	1		NI	E	2
			RTECS No			KO0710000		CAS No:								109-92-2
Vinylidene chloride	1406 738	2	1	1	NR	2	NI	2	0	(2)	2	2	M	NI	SD	3
			RTECS No			KV9275000		CAS No:								75-35-4
Vinyl neodecanoate	1404 737	5	NI	5	NR	3	NI	0	0	(3)	3	3		NI	F	3
			RTECS No					CAS No:								45115-34-2
Vinyltoluene	1409 739	3	3	3	NR	3	NI	0	0	2	2	1	NM	(T)	F	3
			RTECS No			WL5075000		CAS No:								25013-15-4
Water	494 740	0	0	0	Inorg	0	0	0	0	0	0	0		NI	D	0
			RTECS No					CAS No:								7732-18-5
Waxes	1122 741	0	NI	0	NR	0	NI	0	0	(0)	0	0		NI	Fp	2
			RTECS No			RV0350000		CAS No:								8002-74-2
White spirit, low (15-20%) aromatic	1411 742	(4)	NI	(4)	(R)	3	NI	(0)	(0)	(2)	(1)	(2)	A	NI	F	3
			RTECS No					CAS No:								
Xylenes	1408 743	3	NI	3	NR	3	0	0	0	0	2	2		(T)	FE	2
			RTECS No			ZE2275000		CAS No:								1330-20-7
Xylenes/ethylbenzene (10% or more) mixture	2269 2337	3	2	2	NR	3	1	(0)	(0)	(2)	(2)	(2)		(T)	FE	2
			RTECS No					CAS No:								
Xylenol	1422 744	2	NI	2	R	3	NI	1	2	(3)	3	3		(T)	Fp	3
			RTECS No			ZE5425000		CAS No:								1300-71-6
Zinc alkaryl dithiophosphate (C7-C16)	1977 745	0	NI	0	NR	3	NI	0	0	(0)	(0)	(0)		NI	Fp	2
			RTECS No					CAS No:								
Zinc alkenyl carboxamide	2053 746	NI	0	0	NR	0	NI	0	0	(1)	1	(1)		NI	Fp	2
			RTECS No					CAS No:								85137-07-1

Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Zinc alkyl dithiophosphate (C3-C14)	1428	5	NI	5	NR	3	NI	0	0	0	2	2		NI	S	2
	747	RTECS No					CAS No:									
Zinc bromide solutions	2227	Inor	4	4	Inorg	3	NI	1	(2)	(3)	3B	3	S	NI	D	3
	2617	RTECS No					CAS No:									
Zinc chloride	1425	Inor	4	4	Inorg	4	1	(1)	(1)	(3)	(3)	(3)		NI	D	3
	2869	RTECS No ZH1400000					CAS No:									

ANNEX 5

**DRAFT WORK PROGRAMME FOR THE FORTY-FIFTH SESSION OF
THE GESAMP/EHS WORKING GROUP**

- 1 Adoption of the agenda
 - Matters arising from IMO and other Organizations relevant to the activities of the Working Group
 - 2 Evaluation of new substances proposed for bulk transport by ships
 - 3 Correspondence with the industry and consideration of queries from industry related to evaluations
 - 4 Consolidation of data:
 - review of Composite List
 - phthalates (D3 column)
 - application of R/NR to “Inorg” ratings in column A2
 - 5 Communication and publication
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